

Mid Moile Wind Farm

Environmental Impact Assessment Report Volume I

Chapter 6: Landscape and Visual Impact

December 2021

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6 INTRODUCTION

Introduction

Background

- 6.1 Stephenson Halliday was commissioned by Energiekontor to provide landscape and visual consultancy services in respect of the Proposed Development.
- 6.2 This assessment defines the existing landscape and visual baseline environments; assesses their sensitivity to change; describes the key landscape and visual related aspects of the Proposed Development; describes the nature of the anticipated changes and assesses the effects arising during construction and once operational.

The Site

- 6.3 The Site is located within Dumfries and Galloway and comprises commercial plantation forestry. It lies across the low hills of Mid Moile (258m AOD) and Brockloch Fell (235m AOD). The administrative boundary between Dumfries and Galloway and South Ayrshire Council areas forms the site's northern boundary.
- 6.4 The operational Glen App wind farm is located immediately north of the site, within South Ayrshire, and the consented Stranoch wind farm lies approximately 2 km to the east.
- 6.5 The nearest settlements are Cairnryan (2.5km southwest) and Stranraer (9.2km southwest). The surrounding landscape is punctuated with scattered farms and other residential properties.
- 6.6 The northwest corner of the Site abuts part of the Rhins Coast Regional Scenic Area (RSA) and the Glen App Coast & Hills Local Landscape Area (LLA) extends north from this into South Ayrshire. There are no nationally designated landscapes in close proximity to the Site.

Proposed Development

- 6.7 The Proposed Development is for a wind farm development on the Site, consisting of the erection and 35 year operation of up to 15 turbines, 7 up to a maximum 200 m in height to blade tip and 8 up to 230 m.

Competence

- 6.8 This chapter has been prepared by Chartered Landscape Architects at Stephenson Halliday. The Practice has over 24 years of experience working on wind energy proposals for over 100 wind energy proposals throughout the UK. Key individuals working on this project have over 20 years of experience as chartered landscape architects.

- 6.9 The Practice is a Landscape Institute (LI) and IEMA registered practice and all work is prepared and reviewed internally by senior highly experienced landscape planners with Public Inquiry experience.
- 6.10 To inform the assessment, site visits were made to various locations within the study area including, but not restricted to, representative viewpoints by Stephenson Halliday's assessment team in October - December 2021.

Study Area

- 6.11 It is accepted practice within landscape and visual assessment work that the extent of the study area for a development proposal is broadly defined by the visual envelope of the Proposed Development. In this case an initial study area of 45 km has been used (as shown by Figure 6.6, based on guidance provided within NatureScot's (formerly SNH) Visual Representation of Wind Farms (Version 2.2) (SNH, 2017), and agreed by consultees (see Table 6.1).

Chapter Structure and Terminology

- 6.12 Supporting appendices have been prepared, as set out in the table of contents, that supplement various sections of this chapter. The appendices are important to the assessment and should be read alongside this chapter.
- 6.13 Key terms used within the assessment are described at 6.23 – 6.36 and a glossary is provided within Technical Appendix 6.1 which sets out the methodology.

Legislation and Policy Context

Local Planning Policy

Dumfries and Galloway Council

- 6.14 The Site and the Proposed Development are located within the Dumfries and Galloway Council (DGC) administrative area. Current local planning policy is described in the Dumfries & Galloway Local Development Plan 2 (LDP2), (adopted October 2019). Information on Planning Policy is provided in Chapter 5 Renewable Energy and Planning Policy. Policies relevant to this assessment include:
- **Policy OP1 'Development Considerations'** – which requires that: *“Development proposals should respect, protect and/or enhance the region's rich landscape character, and scenic qualities, including features and sites identified for their landscape qualities or wild land character as identified on the 2014 Scottish National Heritage map (or any subsequent revised or amended map) of wild land areas. They should also reflect the scale and local distinctiveness of the landscape.”*
 - **Policy IN1: Renewable Energy** – which states (inter alia) that: *“The Council will support development proposals for all renewable energy generation and/or storage which are located, sited and designed appropriately. The acceptability of any proposed development will be assessed against the following considerations:*

- *landscape and visual impact;*
- *cumulative impact;*
- *impact on local communities and individual dwellings, including visual impact, residential amenity, noise and shadow flicker;*
- **Policy IN2 'Wind Energy'** – which sets out considerations for such developments, including “*The extent to which ... significant detrimental landscape or visual impacts*” are avoided; and design considerations including scale, character and respecting site features. “*Visual dominance*” is also identified as a consideration in respect of effects on communities, dwellings and local amenity. The policy notes that further development management considerations are set out within supplementary guidance (SG) on Wind Energy Development.

6.15 There are also a number of policies relating to designated landscapes. There are no National Scenic Areas or areas of Wild Land within the 20km study area, and policies relevant to local landscape designations include:

- **Policy NE2 'Regional Scenic Areas'** - this policy indicates that: “*development ... which affects Regional Scenic Areas, may be supported where the Council is satisfied that ...the factors taken into account in designating the area would not be significantly adversely affected*”.
- **Policy HE6 'Gardens and Designed Landscapes'** - this policy indicates that “*development that protects or enhances the significant elements, specific qualities, character, integrity and setting, including key views to and from, gardens and designed landscapes...*” will be supported.

South Ayrshire Council

6.16 The northern Site boundary borders the South Ayrshire Council (SAC) administrative area. Current local planning policy is described in the South Ayrshire Local Development Plan (LDP), adopted in September 2014. Policies relevant to the consideration of SAC landscape character types (LCTs) and LLAs within the 20 km study area include:

- **LDP Policy: protecting the landscape** – relates specifically to proposals within or next to locally designated Scenic Areas (SA's), noting that they will be considered against the “*significance of impacts and cumulative impacts on the environment, particularly landscape and visual effects*”. The SA designation was reviewed in 2018 and is superseded by a new proposed LLA designation, due to be adopted under the emerging LDP (see 6.17 below). As no citation is available for the SA designations this assessment considers the character and special qualities of the proposed LLAs which would likely be affected by the Proposed Development.
- **LDP Policy: wind energy** – notes that wind energy proposals will be supported where, inter alia, “*they are capable of being accommodated in the landscape*”, “*they do not have a significant detrimental visual impact*” (including residential visual amenity) and where their cumulative impact with other existing, approved and proposed wind farms is acceptable. This policy further notes that supplementary guidance on wind farms will be produced and that the South Ayrshire Landscape Wind Capacity Study (SALWCS), or subsequent updates, will be used to help determine the effect of proposals on the landscape.

6.17 Although not yet adopted the second Proposed South Ayrshire Local Development Plan (PLDP2) was published for consultation in September 2019. The applicable policies in PLDP2 are largely not materially different to those of the existing LDP, although policies relating to landscape quality reference the new LLA designation. It further notes that for proposals within or affecting LLAs the Council will also consider the guidance contained in the 'statements of importance' and management recommendations of the South Ayrshire Local Landscapes Designations Review (2018).

Local Guidance

6.18 In addition to the policy documents identified above, there are relevant local guidance and baseline documents as follows:

- Dumfries and Galloway Council (February 2020) Wind Energy Development: Development Management Considerations, Supplementary Guidance;
- Dumfries and Galloway Council (January 2018) Regional Scenic Areas Technical Paper;
- South Ayrshire Council (updated 2018) Landscape Wind Capacity Study; and
- South Ayrshire Council (December 2018) Local Landscape Designations Review (2018).

6.19 A review of these background documents and their relevance to this assessment is provided at 6.42 – 6.54, within the baseline section of this chapter.

Stakeholder Consultation

6.20 A scoping report was submitted to the Scottish Government's Energy Consents Unit (ECU) in July 2021 in respect of the Proposed Development and set out the proposed scope of the LVIA. Consultation responses were subsequently received from stakeholders including NatureScot, and SAC, in September 2021. No consultation response was received from DGC.

6.21 Following receipt of these, Stephenson Halliday prepared a further scope refinement document setting out intended amendments to the scope of the LVIA which was issued to NatureScot 1st October 2021. This reflected changes to the design of the Proposed Development (reduced turbine numbers and height).

6.22 Table 6.1 below sets out issues identified through consultation and how these are addressed within the assessment.

Table 6.1: Summary of Stakeholder Consultation

Consultee	Issue	How this is addressed
NatureScot (September 2021)	Advised against constraining the LVIA study area to 20 km.	The scope refinement identified that the 20 km study area was proportionate to the size and scale of the Proposed Development as significant effects beyond 20 km were considered unlikely.

Consultee	Issue	How this is addressed
	<p>Advised to initially consider a 60 km search area for cumulative wind farms, although it was noted that the cumulative LVIA could focus on wind farms with which there would be cumulative relationships which may give rise to significant effects, likely to be those within approximately 20km.</p>	<p>A 20 km study area radius has been adopted for the Cumulative LVIA.</p>
	<p>Advised to give further consideration of the potential effects of aviation lighting on the Dark Sky Park.</p>	<p>The scope refinement identified that visibility would be very limited from the outer area of the Dark Sky Park, located approximately 25 km northeast of the Site. Accounting for the fact that the lights will dim automatically to 200 candela in good visibility conditions it was considered unlikely that significant effects on the Dark Sky Park would arise. Potential effects on the Dark Sky Park are not further considered in the LVIA.</p>
	<p>Siting and design guidance should be taken into account when considering the proposal's scale and location relative to the coastal edge, and also its prominence from the Rhins Coast Regional Scenic Area.</p>	<p>The proposed turbines within the closest western side of the layout have a tip height of 200m, lower than the proposed 230m tip height of those on the eastern side of the layout. Potential effects of the Proposed Development on the Rhins Coast RSA are considered in the assessment of effects.</p>
	<p>For aviation lighting consider the worst-case assessment from particular viewpoints.</p>	<p>Effects of aviation lighting are considered in the LVIA below. Visible aviation lighting is illustrated on wireline visualisations at each assessment viewpoint and night-time photomontages are also provided for Viewpoint 4 Kirkcolm and Viewpoint 7 A77 south of site.</p>
	<p>Advised that the extent of the lighting assessment study area for LVIA should be informed by the ZTV map and an understanding of the nature of the likely effects.</p>	<p>Informed by Figure 6.12 Zone of Theoretical Visibility (ZTV) – Visible Aviation Lighting, the LVIA considers the potential effects of aviation lighting.</p>
<p>SAC (September 2021)</p>	<p>Viewpoint requests from the summits of Finnarts Hill, Penderry Hill, Carlock Hill and Milljoan Hill all of which are landmark hills. Consider effects on views from the monuments on Finnarts Hill.</p>	<p>Viewpoint 1 Ayrshire Coastal Path represents similar views from Finnart Hill and Penderry Hill. Viewpoint 14 Carlock Hill was added as an LVIA viewpoint. Potential effects on cultural heritage assets are considered in Chapter 7.</p>
	<p>Undertake a Residential Visual Amenity Assessment if any residential properties are found within South Ayrshire likely to experience effects on visual amenity.</p>	<p>There are no residential properties within SAC within 2 km of the Proposed Development. A Residential Visual Amenity Assessment is provided as Appendix 6.5.</p>

Consultee	Issue	How this is addressed
DGC	No response.	The LVIA has taken account of comments from other consultees and followed best practice.

Assessment Methodology and Significance Criteria

6.23 The detail of the methodology is described in Technical Appendix 6.1. A summary of the primary judgements is provided below.

Sensitivity

6.24 Sensitivity is judged taking into account the component judgments about the value and susceptibility of the receptor as illustrated by the table below. Where sensitivity is judged to lie between levels, an intermediate assessment will be adopted. A slightly greater weight is given to susceptibility in judging sensitivity of visual receptors as indicated below:

Table 6.2: Landscape Sensitivity

		SUSCEPTIBILITY		
		High	Medium	Low
VALUE	National	High	High/Medium	Medium
	Regional	High/Medium	Medium	Medium/Low
	Community	Medium	Medium/Low	Low

Table 6.3: Visual Sensitivity

		SUSCEPTIBILITY		
		High	Medium	Low
VALUE	National	High	High/Medium	Medium
	Regional	High/Medium	High/Medium	Medium/Low
	Community	High/Medium	Medium	Low

Magnitude

6.25 Scale of effect is the primary factor in determining magnitude, which may be higher if the effect is particularly widespread and/or long lasting, or lower if it is constrained in geographic extent and/or timescale. The table below illustrates how this judgement is considered as a two-step process.

Table 6.4: Magnitude

Scale / extent	Large	Medium	Small	Negligible
Wide	Substantial			
Intermediate		Moderate		
Localised			Slight	
Limited				Negligible

Stage 1 Result / Duration	Substantial	Moderate	Slight	Negligible
Permanent	Substantial			
Long-term		Moderate		
Medium-term			Slight	
Short-term				Negligible

6.26 Where magnitude is judged to lie between levels, an intermediate assessment will be adopted.

Significance of Effects

6.27 The significance of any identified landscape or visual effect is assessed as major, moderate, minor or negligible. These categories are based on the consideration of sensitivity with the predicted magnitude of change. The table below is not used as a prescriptive tool and illustrates the typical outcomes, allowing for the exercise of professional judgement. In some instances, a particular parameter may be considered as having a determining effect on the analysis.

Table 6.5: Significance

		Magnitude of Change			
		Substantial	Moderate	Slight	Negligible
Sensitivity of Receptor	High	Major	Major/ Moderate	Moderate	Minor
	Medium	Major/ Moderate	Moderate	Moderate/ Minor	Minor/ Negligible
	Low	Moderate	Moderate/ Minor	Minor	Negligible

6.28 Where the effect has been classified as Major or Major/Moderate this is considered to be equivalent to likely significant effects referred to in the EIA Regulations. Where Moderate effects are predicted, professional judgement will be applied to ensure that the potential for significant effects arising has been thoroughly considered. The conclusion that some effects are 'significant' should not be taken to imply that they should warrant refusal in any decision-making process.

Beneficial/Adverse

6.29 Landscape and visual effects can be beneficial or adverse and, in some instances, may be considered neutral. Neutral effects are those which overall are neither adverse nor positive but may incorporate a combination of both.

6.30 With regard to the visual effects of wind farms, it is important to recognise the differing views revealed by extensive available research and to take into account that for the same development, some may view the impact as adverse, some as beneficial and others as neutral. This depends to some extent on the viewer's predisposition towards landscape change but also their opinions regarding climate change and the principle of renewable energy development including wind farms in the landscape. Taking a precautionary approach in making an assessment of the 'worst case scenario', the assessment considers that all effects on views which would result from the construction and operation of the Proposed Development to be adverse, unless specified otherwise in the text. It should be noted however that not all people would consider the effects to be adverse.

Cumulative Assessment

6.31 The cumulative assessment relates to the assessment of the effects of more than one development. In this case, operational and consented wind farm developments are considered part of the landscape and visual baseline and included within the main assessment. Throughout this assessment Stranoch wind farm refers to the recently consented (November 2021) proposal, formerly referred to as Stranoch 2.

6.32 The approach to the cumulative assessment is set out alongside the assessment in the relevant section of this chapter. Further detail is set out within Technical Appendix 6.1.

Night-time Assessment

- 6.33 The Proposed Development includes visible aviation lighting for which an assessment of potential night-time impacts is included. The approach to night-time assessment is set out alongside the assessment in the relevant section of this chapter.

Residential Amenity

- 6.34 As set out within LI Technical Guidance Note 02//19 'Residential Visual Amenity Assessment (RVAA)':

"Changes in views and visual amenity are considered in the planning process. In respect of private views and visual amenity, it is widely known that, no one has 'a right to a view.' ...

It is not uncommon for significant adverse effects on views and visual amenity to be experienced by people at their place of residence as a result of introducing a new development into the landscape. In itself this does not necessarily cause particular planning concern. However, there are situations where the effect on the outlook / visual amenity of a residential property is so great that it is not generally considered to be in the public interest to permit such conditions to occur where they did not exist before." [paragraphs 1.5-1.6]

- 6.35 The methodology for and assessment of effects on residential visual amenity for properties is included as Technical Appendix 6.5.

Distances

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

Visual Aids

- 6.37 Photographs of the existing views, along with wirelines and photomontages showing the Proposed Development are included within Volume II. The method of visualisation selected has been informed by LI Technical Guidance Note 06/19 'Visual Representation of Development Proposals' and the Scottish Natural Heritage (SNH, now NatureScot) 'Visual Representation of Wind Farms – Guidance' (Feb 2017). The methodology of production for the visualisations is described in Technical Appendix 6.2.

- 6.38 It should be noted that as this assessment was being finalised two proposed wind farms were granted consent; Arecleoch Extension and the revised proposal for Stranoch wind farm (also known as Stranoch 2). The consented status of these schemes is reflected within the assessment and illustrated on Figure 6.7. However, visualisations had already been completed by the time consent had been granted and they remain shown as 'In Planning' in the wireline visualisations. They have not been updated in wirelines as the layouts used in the visualisations are those of the consented schemes, it is simply the colour indicating status that would differ along with the naming of Stranoch (labelled as Stranoch 2 in wirelines).

Baseline Conditions

Introduction

- 6.39 An overview of the baseline study results is provided in this section with the further baseline description of the individual landscape and visual receptors being provided alongside the assessment of effects for ease of reference.
- 6.40 This section provides a review of the key local baseline studies and guidance documents and identifies those landscape and visual receptors which merit detailed consideration in the assessment of effects, and those which are not taken forward for further assessment as effects “*have been judged unlikely to occur or so insignificant that it is not essential to consider them further*” (GLVIA3, paragraph 3.19).
- 6.41 Both this baseline section and the effects section describe landscape character and visual receptors before considering designated areas, as it is common for designations to encompass both character and visual considerations within their special qualities or purposes of designation.

Local Guidance and Baseline Studies

- 6.42 The following guidance documents provide advice relevant to this assessment:
- Dumfries and Galloway Council (February 2020) Wind Energy Development: Development Management Considerations, Supplementary Guidance*
- 6.43 This Supplementary Guidance (SG) sets out siting and design guidance for wind farm proposals. The Dumfries and Galloway Wind Farm Landscape Capacity Study, (DGWLCS) is a supportive study and is attached as an appendix to this SG. The DGWLCS, dated 2020, revises and updates the previous studies, from 2017 and 2011, in response to changes in turbine size, scale of development and the cumulative baseline of other existing and consented wind energy development.
- 6.44 The 1998 Dumfries and Galloway Landscape Assessment¹ forms the basis for the DGWLCS with some minor revisions to landscape character classifications and boundaries. The DGWLCS provides information on key landscape characteristics, sensitivity to turbine typologies, cumulative, issues, key constraints, opportunities, and guidance for development. Table 6.6 below considers the Proposed Development against constraint and opportunity criteria detailed in the DGWLCS. Appendix 6.3 provides an assessment of landscape sensitivity for LCTs considered in the assessment informed by DGC Wind Energy Development SG, the DGWLCS and fieldwork. Cumulative impacts are also highlighted in the DGWLCS and are considered within the cumulative assessment within this LVIA.
- 6.45 The DGC Wind Energy Development SG also covers residential visual amenity, but in doing so does not recognise the relevant guidance (LI TGN 06/19²) which had been issued before the SG was published. As a result, there are some minor divergences of the SG advice

¹ Land Use Consultants (1998) Dumfries and Galloway landscape assessment

² Landscape Institute (2019) Residential Visual Amenity Assessment (RVAA) Technical Guidance Note 2/19

from the LI guidance and where this arise, the LI guidance has been applied. The methodology for and assessment of effects on residential visual amenity for properties resulting from the introduction of the Proposed Development is included as Technical Appendix 6.7.

Landscape Character Assessment (NatureScot 2019) Dumfries & Galloway landscape evolution and influences

- 6.46 Consideration has also been given to this NatureScot document which provides an update to the 1998 Dumfries and Galloway Landscape Assessment, noting in particular the increasing influence of wind development of the landscape as follows: “Groupings of wind farms and/or turbines can be found in the Luce Valley and moorland to the east; in the uplands between Carsphairn and Sanquhar; in the moorland and hills between Carsphairn and Moniaive; in the Forest of Ae, and in the hills east of Langholm. New proposals continue to be brought forward and more modern turbines are significantly taller, up to 220m in some developments.” The document also notes the increasing attention being paid to landscape and recreational considerations in managing the extensive forested areas.

Dumfries and Galloway Council (January 2018) Regional Scenic Areas Technical Paper,

- 6.47 This document sets out the basis for designation and boundaries of the Regional Scenic Areas (RSAs) identified within Dumfries and Galloway. This paper has informed this assessment in relation to considering effects of the Proposed Development on RSAs. Those considered in the assessment are identified at 6.74-6.76.

South Ayrshire Council (adopted 2015) Supplementary Guidance: Wind Energy

- 6.48 This SAC Wind Energy SG document supplements LDP Policy: Wind Energy, the SAC Wind Energy SG notes that the baseline descriptions of landscape character and management guidelines were set out in the Ayrshire Landscape Assessment 1998³ but subsequently refined and revised in the South Ayrshire Landscape Wind Capacity Study (SALWCS). It reiterates the SAWLCS will inform the assessment of future wind energy proposals and that they should have regard to advice given in the capacity study regarding landscape sensitivity.
- 6.49 The SAC Wind Energy SG further sets out a landscape strategy which identifies a number of key objectives, noting that proposals “should seek to mitigate direct impacts on these interests through careful siting and design”. The response of the Proposed Development to these objectives is discussed further at 6.78 - 6.85.
- 6.50 In respect of visual impact, the SAC Wind Energy SG lists a range of interests (receptors) that should be considered. It notes that “a range of viewpoints should be chosen which are representative of issues in the area and which are likely to experience significant effects” and that material supplied to inform the assessment should reflect SNH (now NatureScot) good practice guidance. It further notes in respect of residential visual

³ Land Use Consultants (1998) Ayrshire Landscape Assessment

amenity that the design of a wind farm "should seek to minimise significant visual effects on private property". Criteria set out in the SAC Wind Energy SG in respect of visual impact have informed the selection and assessment visual receptors within this chapter.

- 6.51 Cumulative landscape and visual impacts are also identified as a particular issue within South Ayrshire and number of specific considerations are identified. These are considered within the cumulative assessment.

South Ayrshire Landscape Wind Capacity Study (updated 2018)

- 6.52 The SALWCS was originally published in 2013 and subsequently updated in 2018, principally to provide additional consideration of larger typology turbines than the original 2013 study. It aims to inform strategic spatial planning for wind energy and offers guidance for development through a landscape and visual sensitivity assessment for developments sited in the various Landscape Character Types (LCTs) within South Ayrshire. 'Sensitivity' to various development typologies is assessed for each LCT in relation to a number of criteria and each LCT is then assigned an overall 'sensitivity' rating based on the sum of these factors. This study explicitly excludes consideration of landscape value from its consideration of 'sensitivity' and, in terms of this assessment, is akin to GLVIA3 landscape susceptibility with the exception of the cumulative and visual amenity factors which relate to capacity.
- 6.53 The findings of this study informs this assessment in respect of considering the effects of the Proposed Development on landscape character within South Ayrshire.

South Ayrshire Council (2018) Local Landscape Designations Review

- 6.54 This study provides a review of existing, long standing local landscape designations in light of current national guidance and defines a new landscape designation, Local Landscape Areas (LLAs), within South Ayrshire. It sets out the boundaries for each LLA and provides a Statement of Importance which sets out reasons for designation and describes its special qualities along with a summary of sensitivities to change and management recommendations. The study informs this assessment in relation to considering effects of the Proposed Development on LLAs, those considered in the assessment are identified at 6.75.

ZTV Study

- 6.55 Zone of Theoretical Visibility (ZTV) studies were generated based on the design of the Proposed Development. The analysis was carried out using a topographic model, shown on Figure 6.5, and incorporating the screening effects of forestry, woodland and buildings, shown on Figure 6.6, to show potential visibility of the proposed turbines. Other elements of the Proposed Development such as access tracks and the substation are not included within the ZTV study. The model does not take account of any localised features such as small copses, hedgerows or individual trees which may result in additional screening. The methodology for production of ZTVs is described in detail within Technical Appendix 6.2. The ZTV studies were used to aid the identification of those receptors that are likely to be most affected by the Proposed Development and those that do not require detailed consideration. It should be noted that in many areas woodlands included within the ZTV

may comprise active forestry, resulting in the felling and replanting of some areas modelled in the ZTV study. Whilst the felling cycle will alter the heights of different areas of forestry over time, altering localised visual effects, the wider pattern will remain relatively constant.

- 6.56 Theoretical visibility within 5km is largely focused on the open elevated areas of plateau moorland to the east, south and west of the Site, with visibility being largely limited to the north by conifer forest plantations. Theoretical visibility within 5km is also indicated from Cairn Point (3.3km to the east), within the Rhins Coast DGC RSA, and some elevated areas within the Glen App valley within the SAC Glen App Coast & Hills LLA (2.2km to the north). No theoretical visibility is indicated from the valley floor and lower sides of the Glen App Valley within 3.3km to the north and northeast of the Site.
- 6.57 Beyond 5km up to 15km, theoretical visibility to the north is largely limited to some areas north and south of Kilantrigan Loch (6.7km north) and north and east of the settlement Ballantrae (10.3km north). To the east and south theoretical visibility would mostly arise from open elevated moorland plateau. Areas of more limited potential visibility to the east and south include some eastern slopes and lower elevations including parts of the Cross Water of Luce valley west of Diriniemow Fell (200m AOD), and south of Cairnscarrow (229m AOD), although, no or limited theoretical visibility is indicated across much of the lower elevations of the valley. To the southwest and west theoretical visibility is indicated across the majority of Loch Ryan and much of the north eastern part of the Rhins of Galloway, including settlements Stranraer and Leswalt.
- 6.58 Beyond 20km theoretical visibility is indicated from the open waters of the Firth of Clyde to the north, the North Channel to the west and Luce Bay to the south. Landward theoretical visibility is largely limited to small areas of open elevated and remote areas.
- 6.59 Effects on landscape or visual receptors outside the areas of visibility shown on the ZTV study would be Negligible and are not considered further.

Landscape Character

- 6.60 Landscape character types in the detailed 20km study area are shown on Figure 6.2. Baseline landscape character for the study area is described within the capacity studies for the local authorities covering the study area, as discussed above.
- 6.61 The Proposed Development is situated entirely within DG17: Plateau Moorland, the host LCT. The following LCTs, landscape character areas (LCAs) and landscape character units are located within the detailed study area and are likely to have visibility of the Proposed Development, as shown by the ZTV studies, and are considered further in the assessment of effects:
- **DWG17: Plateau Moorland** (0km – contains Site);
 - **DWG16: Upland Fringe – Balker Moor Fringe** (0.9km west);
 - **DWG1: Peninsula – Rhins Area** (4.8km southwest)
 - **DWG2: Coastal Flats – Stranraer Basin** (5.5km south);
 - **DWG19: Southern Uplands** (5.7km northeast);

- **SA20b: Southern Uplands** (1.1km northeast); and
- **SA14: Upland Glen** (2.9km northwest).

6.62 There are also a number of LCTs, LCAs and landscape character units which are excluded from the detailed assessment on the basis that effects are likely to be Negligible, for the reasons indicated below:

- **DWG3: Shallow Flat Bottomed Valley – Water of Luce** (6.2km southeast) – some limited theoretical visibility is indicated from elevated areas on the north eastern and south eastern fringes of this LCT. Actual visibility from within this LCT would be largely limited by intervening woodland within and close to the Luce valley. Viewpoint 11 indicates that views looking northwest towards the Proposed Development are screened by woodland.
- **DWG16: Upland Fringe – Camrie Fringe** (11.8km southeast) – some theoretical visibility is indicated from the north western upland area. However notable effects on landscape character are considered unlikely given the intervening distance and presence of Carscreugh wind farm within this landscape unit.
- **DWG1: Peninsula – Machars** (16.7km southeast) – some limited elevated areas of ZTV coverage are indicated, however notable effects on landscape character are considered unlikely with the Barlockhart Moor situated within the closest part of this character unit.
- **DWG17a: Plateau Moorland with Forest – Glentool** (7km east) – some limited theoretical visibility is indicated from open plateau moorland around Cragmoddie Fell (248m AOD). Views looking west towards the Proposed Development from within this area Kilgallioch wind farm and the consented Stranoch and Kilgallioch Extension wind farms.
- **DWG12: Drumlin Pasture in Moss and Moor Lowland** (14.8km southeast) – some limited theoretical visibility is indicated from elevated areas to the south of Glenluce at a distance of 16.2km and from an area around Barsekoch Fell and Fell End at distances over 18km. Where visible the Proposed Development would be seen as a distant feature in views looking northwest from within this LCT, notable effects on character are considered unlikely.
- **DWG11: Moss and Forest Lowland – Machars** (17km southeast) – some theoretical visibility is indicated from elevated areas to the west, southwest and east of Dernaglar Loch from distances of over 17km. Visibility would be limited by distance and pockets of woodland north of the loch, notable effects on character are considered unlikely.
- **SA1d Raised Coastal Beach with Rock Shore** (2.4km west) – no theoretical visibility is indicated from this small transitional LCT directly west of LCT SA18c.
- **SA18c: Plateau Moorlands + Forestry + Wind Farms** (0.2km north) – some very limited theoretical visibility is indicated from this neighbouring LCT which contains operational Glen App. Actual outward views towards the Proposed Development from within the LCT would be largely screened by conifer forest plantation and likely to feature the Glen App wind turbines.
- **SA22: Glenapp Coastal Farmland & the Policies** (3.9km northwest) and **SA1d: Raised Beach Coast with Rocky Shore** (4.1km northwest, directly west of LCT SA22) – some very limited theoretical visibility is indicated from the southern fringes of LCT SA22 and from the south eastern fringe of LCT SA1b. Existing views from within this part of the LCT

already feature operational Glen App, notable effects are on the characteristics of these landscape are considered unlikely.

- **SA13 Intimate Pastoral Valley** (8.4km north) – some limited theoretical visibility is indicated by the ZTVs in the north western part of this LCT. Actual visibility will be largely limited to some elevated areas north of the B7044 and Knockdolian (265m AOD) at a distance of 12.7km. Significant effects on this LCT are considered unlikely given the intervening distance, where the Proposed Development would be partly screened and seen as a distant feature.
- **SA1c: Raised Beach Coast with Flat Fields & Headlands** and **SA17e: Coastal Foothills** (10.9km north) –some theoretical visibility is indicated from SA1c at distances over 12.8km from a short section of the Ayrshire Coastal Path and from Bennane Hill. From SA17e some theoretical visibility is indicated from elevated areas to the west and northwest of Knockdolian (within neighbouring SA13) at distance of over 10.9km. Significant effects on these LCTs are considered unlikely given the intervening distance, where the Proposed Development would be partially screened by elevated landform to the north and south of the Glen App valley and where visible would be seen as a distant feature.

Visual Receptors

- 6.63 Visual receptors are “the different groups of people who may experience views of the development” (GLVIA3, paragraph 6.3). In order to identify those groups who may be significantly affected, the ZTV study, baseline desk study and site visits have been used.
- 6.64 The different types of groups assessed within this report encompass local residents; people using key routes such as roads; cycle ways, people within accessible or recreational landscapes; people using Rights of Way, Core Paths; or people visiting key viewpoints. In dealing with areas of settlement, Public Rights of Way and local roads, receptors are grouped into areas where effects might be expected to be broadly similar, or areas which share particular factors in common.
- 6.65 Representative viewpoints have been selected to aid the assessment of effects on visual receptors.

Baseline Visual Environment

- 6.66 The Site is situated within an undulating plateau moorland with an existing commercial forestry land use. The Site is relatively distant from settlement, with the main population centres of Stranraer located 9.2km to the southwest. The landward north and eastern parts of the detailed study area, which largely comprise areas of coastal fringe and moorland plateau, are sparsely populated with occasional farmsteads and individual properties. More regular villages and settled farmland are found along the valley floors and main coastal transport routes including the A77, A75 and A718 to the south and west.
- 6.67 Most visual receptors are therefore found to the south and west of the Site which includes much of the north eastern part of the Rhins of Galloway peninsula, defined by Loch Ryan to the north and Luce Bay to the south. Landform across the peninsula varies, lower lying settled areas close to Stranraer contrast with more remote coastal edges further north and

rolling agricultural inland. Outside of Stranraer there are a number of villages and numerous scattered farmsteads and individual residential properties.

Visual Receptor Groups

6.68 The following visual receptor groups are located within the detailed study area and are likely to have visibility of the Proposed Development, as illustrated by the ZTVs, and are considered further in the assessment of effects:

- **Core Path DG 376** (0km - partly within the Site)
- **Main Water of Luce Valley, northeast of Penwhirn Reservoir** (1.7km east);
- **Glen App** (2.2km north);
- **Northeast Rhins Peninsula (north of The Wig)** (4.7km west);
- **Main Water of Luce Valley, southeast of Penwhirn Reservoir and Cross Water of Luce Valley** (5km east and southeast);
- **Southern Uplands** (5km north);
- **Northeast Rhins Peninsula (south of The Wig)** (6.2km southwest);
- **Milleur Point** (6km northwest);
- **Rhins Peninsula south of Marian Port** (7 km southwest); and
- **Stranraer** (9.2 km southwest).

6.69 There are a number of visual receptors groups which are excluded from the detailed assessment on the basis that visual effects would be Negligible, for the reasons indicated below:

- **Recreational routes within DWG17a: Plateau Moorland with Forest** – the ZTVs indicated either no or very limited theoretical visibility of the Proposed Development from the Glenkitten Fell Core Path (7.3 km east) and Three Lochs Kirkcown (16.8 km southeast). Therefore, these routes are not considered further.
- **Lochryan** (1.7 km southwest) – this visual receptor group includes Lochryan Garden and Designed Landscape (GDL) and associated residential properties. The ZTVs indicate very limited visibility, actual views would be largely screened by mature woodland. This receptor group is therefore not considered further.
- **SAC Core Paths beyond 5km** – the ZTV's indicate either no or very limited theoretical visibility of the Proposed Development from very short sections of the SAC Core Path network. Therefore, these routes are not considered further.
- **Glenapp Castle** (7.6km north) – this visual receptor group includes Glenapp Castle GDL and associated SAC core paths. The ZTVs indicate very limited to no theoretical visibility and in reality, visibility would be largely screened by mature woodland wooded. This receptor group is therefore not considered further.
- **Lochnaw Castle** (11.5km southwest) – this visual receptor group includes Lochnaw Castle GDL and associated DGC core paths. It is heavily wooded and the ZTVs indicate very little theoretical visibility. This receptor group is therefore not considered further.
- **Firth of Clyde** (10km north) – the ZTVs indicate theoretical visibility of the Proposed Development from some areas, largely beyond 10km to the north. Notable effects on

receptors on the open waters of the Firth of Clyde are considered unlikely given the intervening distance and partial screening by landform and woodland, therefore this receptor group is not considered further.

- **Settlements beyond 10km southeast** (10km southeast)– the ZTVs indicate no theoretical visibility of the Proposed Development from DGC settlements⁴ and these are not considered further.
- **South Ayrshire settlements** – the ZTVs indicate no theoretical visibility of the Proposed Development from any area of settlement in South Ayrshire within the 20km study area and they are therefore not considered further.

Key Routes

Roads, Rail and Ferries

6.70 The following main road and rail routes are located within the detailed study area and are likely to have visibility of the Proposed Development, as illustrated by the ZTVs, and are considered further in the assessment of effects:

- **A77** (3.2km north);
- **A718** (6.2km southwest); and
- **Cairnryan to Belfast/Larne Ferries** (2.9km west).

6.71 There are also a number of routes which are excluded from the detailed assessment on the basis that visual effects are likely to be Negligible, for the reasons indicated below:

- **Glasgow – Stranraer Railway** (5km east) – some areas of theoretical visibility from short sections of this route as it passes through the Luce valley and approaching Stranraer. Actual visibility would be largely limited by landform and vegetation to a short section of this route east of Craigheroch Fell. Notable effects on visual receptors on this route are considered unlikely therefore this route is not considered further.
- **A75** (8.8km south) – the ZTV illustrates very limited visibility from this main road and in reality localised vegetation and landform of roadside verges would further reduce this. It is unlikely there would be anything more than occasional glimpses of turbines which would not result in notable effects on users of the route.
- **A747** (16.7km southeast) – some limited theoretical visibility indicated south of the intersection with the A75. Actual visibility, as represented by Viewpoint 10, is limited by vegetation and landform and therefore not considered further.
- **A716** (12.8km southwest) – extensive theoretical visibility is indicated between the intersection with the A77 and the B7042. Viewpoint 9 indicates that, where visible, the Proposed Development would be seen as a distant feature, therefore this route is not considered further.

Recreational Routes

⁴ As defined by the Dumfries and Galloway Council (2018) Settlement Hierarchy Technical Paper

6.72 The following long distance recreational routes are located within the detailed study area, as illustrated on Figure 6.4, and are likely to have visibility of the Proposed Development, as illustrated by the ZTVs, and are considered further in the assessment of effects:

- **Loch Ryan Coastal Path** (2.1km west);
- **Ayrshire Coastal Path** (3.0km northwest);
- **Southern Upland Way** (8.9km south);
- **South West Coastal 300** (3.2km west).

6.73 There are also a number of routes which are excluded from the detailed assessment on the basis that visual effects are likely to be Negligible, for the reasons indicated below:

- **National Cycle Network (NCN Route) 73 / Robert Bruce Trail 73** (8.9km south) – these routes follow the A95 corridor and, as set out above, are unlikely to have any notable visibility of the Proposed Development.

Specific Viewpoints

6.74 There are no specific panoramic viewpoints as indicated on OS maps within the 20km study area.

Designated areas

6.75 Designated landscapes within the detailed study area are illustrated on Figure 6.1. The following areas are likely to have visibility of the Proposed Development, as shown by the ZTVs and are considered further in the assessment of effects:

- **Rhins Coast RSA** (1.5km west); and
- **Glen App Coast and Hills LLA** (2.2km northwest).

6.76 There are also a number of designated areas which are excluded from the detailed assessment on the basis that effects are likely to be Negligible, for the reasons indicated below:

- **The Stinchar Valley LLA** (8.4km north) – some limited theoretical visibility is indicated by the ZTVs from the north western part of this LLA. Actual visibility will be largely limited to some elevated areas north of the B7044 and Knockdolian (265m AOD) at a distance of 12.7km. Given the intervening distance and partial screening of the Proposed Development by intervening landform it is considered unlikely that the character and special qualities of this LLA would be significantly affected. Therefore, this LLA is not considered further.
- **Girvan to Ballantrae Coast & Hills LLA** (10.4km north) – some theoretical visibility of the Proposed Development is indicated at distances over 10.8 km from a short section of the Ayrshire Coastal Path and open elevated areas northeast of Ballantrae (outside the LLA). Given the intervening distance and partial screening of the Proposed Development by intervening landform it is considered unlikely that the character and special qualities of this LLA would be significantly affected. Therefore, this LLA is not considered further.

6.77 GDIs located within the detailed study area are largely privately owned with restricted public access, those with ready public access are considered within the visual receptor groups set out above. Impacts on GDIs and matters of setting are considered separately within Chapter 7: Cultural Heritage and Archaeology.

The Proposed Development

Introduction

6.78 The Proposed Development is described in detail in Chapter 3: Project Description and Construction Methods and illustrated on Figure 3.1. It includes the following elements which could potentially give rise to landscape and visual effects:

- 15 turbines in total, including 7 turbines of up to 200m blade tip height and 8 turbines of up to 230m blade tip height;
- Associated turbine transformers;
- Hardstanding areas for erecting cranes at each turbine location;
- On-site tracks connecting each turbine;
- A temporary construction compound;
- On-site substation;
- Three borrow pits;
- New site access; and
- Forestry felling and replanting;

6.79 Visible aviation lighting is required on turbines in excess of 150m to blade tip with a medium intensity (2000 candela) steady red aviation warning light on the nacelle (with automatic dimming to 200cd when visibility is good) and a low intensity light (25cd) half way down the tower.

6.80 The construction phase is expected to last approximately 12 months, as set out in in Chapter 3: Project Description and Construction Methods. The construction phase activities and temporary features with the potential to cause an effect on landscape and visual amenity include HGV & abnormal load deliveries to the Site, the movement of vehicles therein and construction of all elements of the proposed Development including the use of cranes for erection of wind turbines.

6.81 Planning permission is sought for 35 years of the operational phase of the wind farm. After the expiration of this period the turbines would be decommissioned and removed. Any alternative course of action would require a new planning application to be submitted.

Design Approach and Mitigation

6.82 The design approach is described in full within Chapter 4: Design Evolution. Measures to reduce landscape and visual impacts have been embedded into the design of the proposed Development and include:

- Location of the Site within an existing wind farm landscape character type;

- Location of the Site adjacent to an existing wind farm which already influences landscape and visual receptors;
- Location of Site within existing conifer forest away from the moorland core of DWG17: Plateau Moorland;
- Reduction in the number of turbines from 21, as proposed within the Scoping Report, to 15 in order to provide a greater offset from Cairnryan;
- Reduction in the blade tip height of turbines closest to operational Glen App wind farm, the North Rhins Coast RSA and visual receptors to the west of the site;
- Siting of the construction compound, and substation within the lower lying western parts of the Site, surrounded by retained conifer forestry, to minimise visual prominence.
- Siting of borrow pit search areas in areas surrounded by retained conifer forest to minimise visual prominence;
- The new permanent access track and junction from the A77 avoids using the same route as the existing track and long distance footpath in order to minimise the need for closures of the footpath. This will mean that the two tracks run close together for a part of the route. It is proposed that planting is included at the detailed design stage (as the precise positioning and groundworks are established for this section of the route) in order to maintain/enhance the amenity of the footpath route.
- Minimising the requirement for forestry felling via keyholing; and
- Track layout to use sections of existing forestry access where practicable.

Dumfries and Galloway Wind Farm Landscape Capacity Study

6.83 The DGWFLCS identifies a range of opportunities and constraints to development within each identified LCT, Table 6.6 below considers the Proposed Development against these criteria.

Table 6.6: LTC DWG17: Plateau Moorland – Opportunities and Constraints

Constraints	Response of the Proposed Development
<p><i>“The south-western ‘edge’ of this upland plateau which is important in forming a backdrop to settled lowland landscapes and the designed landscape of Castle Kennedy.”</i></p>	<p>The Proposed Development is sited in the afforested north western part of the LCT away from the south western edge of the upland plateau. Viewpoint 8 indicates potential changes to views from the Southern Upland Way looking northwest across White Loch from within the Castle Kennedy GDL. Effects on this GDL are considered in Chapter 7: Cultural Heritage and Archaeology.</p>

<p><i>"The small scale, relatively diverse and settled valleys of the Main Water of Luce and Cross Water of Luce."</i></p>	<p>The Proposed Development is located 2.5km west of the Main Water of Luce and over 5km west of the Cross Water of Luce, within an adjacent and large scale landscape. The ZTVs indicate theoretical visibility from a short section of the Main Water of Luce southeast of Penwhim Reservoir (Viewpoint 13) and limited to no theoretical visibility from the Cross Water of Luce (Viewpoint 11). Potential effects on these valleys are considered further in the assessment of effects.</p>
<p><i>"The pronounced hills of Beneraird and Milljoan within the adjacent Southern Uplands (19) on the north-western boundary of this character type."</i></p>	<p>The ZTVs indicate theoretical visibility from these locations, Viewpoint 15 illustrates views experienced from Beneraird Hill where operational Glen App wind farm is already visible. The Proposed Development would have no direct impact on the landform of either of these hills and at a distance of c. 5km or more, is unlikely to have any notable influence on their appreciation within the wider landscape. Potential landscape and visual effects on these summits are considered in the assessment of effects.</p>
<p><i>"Extensive areas of open moorland where a strong sense of seclusion can be experienced."</i></p>	<p>The Proposed Development is sited in the afforested north western part of the LCT avoiding the core central area of open moorland within the LCT.</p>
<p><i>"The presence of archaeological features, such as the Caves of Kilhern and numerous cairns and standing stones which contribute to landscape character."</i></p>	<p>The Proposed Development is sited 10.4km northwest of the Caves of Kilhern, notable effects on this distinctive feature are considered unlikely. Cultural Heritage assets are considered in more detail within Chapter 7: Cultural Heritage and Archaeology.</p>
<p><i>"Areas where there is an extensive record of a multi-layered historic environment which has largely remained intact, particularly the Archaeologically Sensitive Area, surviving to a greater degree than in other areas."</i></p>	<p>The Proposed Development is sited outside the ASA within the north western part of the LCT. Cultural Heritage assets are considered separately within Chapter 7: Cultural Heritage and Archaeology.</p>
<p><i>"The SUW which is aligned through the southeastern part of this character type."</i></p>	<p>The SUW enters the LCT immediately after passing through Kilgallioch wind farm before passing in relatively close proximity to a number of other operational wind farms on its route through the south eastern part of the LCT. The Proposed Development is sited on the opposite side of the LCT to the SUW, approximately 8.9km away at its closest point. Effects on users of the SUW are considered in the assessment of effects.</p>

<p><i>“The network of minor roads and footpaths that access the upland valleys and moorlands; some offering long views of the Galloway Hills and Rhins Peninsula.”</i></p>	<p>Theoretical visibility of the Proposed Development from these routes is identified in the ZTV analysis above and effects are considered within the consideration of visual receptor groups in the assessment of effects.</p>
<p><i>“The rarity of the open and largely undeveloped moorland within this character type which is a diminishing feature within Dumfries and Galloway.”</i></p>	<p>The Proposed Development is sited in the afforested north western part of the LCT which exhibits similar characteristics to neighbouring LCT SA18c and would not directly affect undeveloped moorland within LTC DWG17: Plateau Moorland.</p>
<p>Opportunity</p>	<p>Response of the Proposed Development</p>
<p><i>“The generally simple landform, expansive scale and absence of strong pattern within this landscape which could relate to larger scale typologies.”</i></p>	<p>The Proposed Development is situated within large scale commercial forestry in the north western part of the LCT.</p>
<p><i>The sparsely populated nature of this character type and the relatively limited visibility of the ‘interior’ of this extensive plateau, distant from adjacent settled character types and contained to the north by higher ground.”</i></p>	<p>The Proposed Development is situated within commercial forestry in the north western part of the LCT away from the settled coast and valleys with limited theoretical visibility indicated from the closest settlement, Cairnryan 1.5km southwest. The ZTVs indicate visibility to the north would be well contained by the higher ground here.</p>
<p><i>“The dispersed settlement pattern and more irregular topography of the moorland fringes and valleys which could support a structured pattern of smaller sized wind turbines associated with settlement.”</i></p>	<p>The Proposed Development is situated within forestry in the north western part of the LCT away from settlement.</p>
<p><i>“The more modified landscape around Penwhirn Reservoir where forestry and infrastructure strongly influence character.”</i></p>	<p>The Proposed Development is situated directly northwest of Penwhirn Reservoir, its location influenced by existing infrastructure including the reservoir and associated infrastructure and the operational Glen App wind farm within neighbouring LCT SA18c.</p>
<p><i>“An absence of formal landscape designations within the character type.”</i></p>	<p>The Proposed Development is 1.5km from the closest designated area (Rhins Coast RSA) although the ZTVs illustrated there would be very limited potential visibility from here and more widely from within designated landscapes. Potential effects on landscape designations are considered in the assessment of effects.</p>

6.84 The design and siting of the Proposed Development has considered the constraints and opportunities identified within the DGWFLCS. In addition to these, the guidance also sets out a number of potential cumulative issues that may arise as a result of future development in the host LCT, as discussed in Table 6.7 below.

Table 6.7: LTC DWG17: Plateau Moorland – Potential Cumulative Issues

Issue	Response of the Proposed Development
<p><i>“Effects on the smaller scale Water of Luce valley and its upper tributary valleys; the Main Water of Luce and Cross water of Luce, and on views from minor roads and settlement where operational and consented developments already form a near-continuous arc of turbines around the Water of Luce watersheds and beyond.”</i></p>	<p>The Proposed Development is located 2.5km west of the Main Water of Luce and over 5km west of the Cross Water of Luce. Where visible from the Main Water of Luce the Proposed Development would largely be seen in views to the northwest where operational Glen App and the man made features associated with Penwhirm Reservoir are already evident. Visibility from the Cross water of Luce is largely limited by intervening landform. Potential cumulative effects on these valleys are considered in the assessment of effects.</p>
<p><i>“Exacerbation of the varied design rationale already associated with operational and consented wind farms located in the Plateau Moorland, the Camrie unit of the Upland Fringe (16) and the Plateau Moorland with Forest (17a) which has resulted in significant visual clutter and confusion. This could happen where potential repowering of some wind farms occurred (involving substantially increased turbine sizes) with developments on the outer, more visible, edges of this character type most likely to be problematic. New, much larger turbines in these more visible locations could also contribute to cumulative effects associated with different designs/rotation speed with close-by operational wind farms.”</i></p>	<p>The Proposed Development is sited within the north western part of the LCT, adjacent to the operational Glen App turbines. This area is on the opposite side of the LCT to the larger cluster of operational and consented development to the east of the LCT and would not contribute to further visual clutter here.</p>
<p><i>“Cumulative effects on the setting of archaeological features and the SUW”</i></p>	<p>The Proposed Development is sited on the opposite side of the LCT to the SUW, approximately 8.9km away at its closest point, and much further away than other operational and consented developments. Cultural Heritage assets are considered in more detail within Chapter 7: Cultural Heritage and Archaeology.</p>
<p><i>“Development of the western and southern areas would lead to cumulative effects on views from the A75 and from other roads and settlement in the Stranraer Basin and the eastern coast of The Rhin.”</i></p>	<p>The Proposed Development is located in the north western part of the LCT and would be seen adjacent to the operational Glen App wind farm. Potential cumulative effects on these receptors are considered in the assessment of effects.</p>

6.85 As set out in the table above, potential cumulative issues are considered further in the assessment of effects sections of this chapter.

Identification and Evaluation of Effects

Introduction

- 6.86 This section sets out the effects that the Proposed Development would have on landscape and visual receptors both during construction/decommissioning and operation.

Effects on Site Fabric

- 6.87 Changes to landscape fabric occur where there would be physical changes to the landscape. In this instance, changes to landscape fabric would predominantly occur within the Site.
- 6.88 The proposed turbines and their bases would represent the addition of new man-made elements of considerable scale into the local landscape. However, the introduction would only directly affect a relatively small portion of the existing landscape fabric resulting in the loss of small areas of commercial forestry. The associated infrastructure (including access tracks, and substation) would also represent new man-made features within the Site, albeit these would be of a far smaller scale and of substantially lesser influence. The cables between turbines would all be laid underground in trenches, alongside the new tracks and this would limit the extent of disturbance arising from the works and thus limit the effects upon the landscape fabric within the Site.
- 6.89 The keyhole felling of existing forestry and management of the Site to maintain clear areas around each turbine would also represent a notable change to the existing landscape fabric which is currently largely comprised of coniferous forestry. Further information of areas to be felled and replanted is provided in Chapter 13: Forestry.
- 6.90 There would be no loss of existing features of notable value within the Site (watercourses, important habitat areas and cultural heritage features would be unaffected).
- 6.91 In addition to the operational effects above, during construction there would be short term effects on the landscape fabric as a result of the temporary construction-phase features, such as the construction compound. As illustrated in Figure 3.1, most of these temporary features are located within areas of retained commercial forestry to limit landscape and visual effects. On completion of construction, all temporary fencing and the temporary construction compound would be removed from Site and all areas disturbed by the works would be reinstated in accordance with a Construction Environmental Management Plan.

Construction/Decommissioning Stage Effects

- 6.92 Construction and decommissioning stage effects would be substantively the same.
- 6.93 They would result from a variety of ground level activities including creation of new access tracks, working and restoration of borrow pits, development of the construction compound and construction/decommissioning of the substation, as well as the activity and movement of large construction vehicles around the Site. However, given that this is an area with extensive commercial forestry activity and existing wind farm operations, some of this activity would be difficult to distinguish from the baseline. Whilst the scale of

change may be Large at times over the Site itself, the duration would be Short term and the impact would be Not Significant.

6.94 The greatest effects during the construction phase would arise from the standing turbines, and large cranes used to erect these, during the final stages of construction - by which point the effects would be the same as for those during operation, as set out in the following sections.

Viewpoint Analysis

6.95 Viewpoint analysis has been undertaken from a total of 16 representative viewpoints. The final list of viewpoints was prepared following stakeholder consultation including SAC and NatureScot, as set out in Table 6.1.

6.96 The viewpoint locations are illustrated on Figures 6.1 - 6.12. The visualisations (comprising photographs of the existing view, wireframes and photomontages) are illustrated with reference to Viewpoints 1 to 16.

6.97 The full viewpoint analysis is contained within Technical Appendix 6.4 and the findings summarised below in Table 6.8. In each case, distances are listed in relation to the nearest turbine.

6.98 Please note that Technical Appendix 6.4 considers the nature and the scale of changes to character and views at each viewpoint location. The sensitivity of receptors and wider extent of the effect (beyond the individual viewpoint location) and its duration are considered in the main body of the assessment text below as part of the consideration of the magnitude and significance of effects.

Table 6.8: Viewpoint Analysis Summary

VP	Location	LCT ⁵ Landscape Designation ⁶		Distance /Direction	Scale of Landscape Effect	Scale of Visual Effect
1	Ayrshire Coastal Path	SA14: Upland Glen	Glen App Coast and Hills LLA	3.6km NW	Negligible	Small
2	Loch Ryan Coastal Path	DWG1: Peninsula	Rhins Coast RSA	2.1 km W	Medium/Small	Medium
3	A77 at Cairnryan	DWG1: Peninsula	n/a	3.4km W	Negligible	Negligible
4	Kirkcolm	DWG1: Peninsula	Rhins Coast RSA	6.3km W	Medium	Large/Medium
5	Leswalt	DWG1: Peninsula	n/a	9.7km SW	Small	Medium/Small

⁵ As defined by the DGWFLCS and SAWLCS

⁶ As defined by Dumfries and Galloway Council (January 2018) Regional Scenic Areas Technical Paper; And South Ayrshire Council (December 2018) Local Landscape Designations Review (2018).

VP	Location	LCT ⁵ Landscape Designation ⁶		Distance /Direction	Scale of Landscape Effect	Scale of Visual Effect
6	Stranraer	DWG1: Peninsula	n/a	9.4km SW	Medium/Small	Medium
7	A77 south of site	DWG2: Coastal Flats	n/a	7.3km S	Negligible	Small
8	Castle Kennedy	DWG2: Coastal Flats	n/a	9.6km S	Negligible	Small/Negligible
9	A716 near Sandhead	DWG2: Coastal Flats	n/a	18.3km S	Negligible	Negligible
10	A747 near Glenluce	DWG1: Peninsula	n/a	16.9km SE	Negligible	Small/Negligible
11	New Luce	DWG 3: Shallow Flat Bottomed Valley	n/a	8.6km SE	Negligible	Negligible
12	Southern Upland Way near Kilhern Caves	DWG17: Plateau Moorland	n/a	10.6km SE	Negligible	Small
13	Penwhirn Reservoir	DWG17: Plateau Moorland	n/a	2km S	Medium	Large/Medium
14	Carlock Hill	SA22: Glenapp Coastal Farmland & the Policies	Glen App Coast and Hills LLA	5.2km N	Small	Medium/Small
15	Beneraird	SA20b: Southern Uplands	Glen App Coast and Hills LLA	7.4km NE	Small/ Negligible	Small
16	Larne/ Belfast Ferry Routes	n/a	n/a	7.4km W	n/a	Small

6.99 Each of the viewpoints is a 'sample' of the potential effects, representing a wide range of receptors - including not only those actually at the viewpoint, but also those nearby, at a similar distance and/or direction. From these viewpoints it can be seen that the distribution of effects would be as follows:

6.100 Effects on character:

- Large and Large/Medium scale effects on character would affect the Site and immediate context – except to the north due to the presence of Glen App wind farm.
- Medium scale effects would extend up to approximately 5km from the turbines to the south and 3km to the east with the increasing influence of existing and consented wind farms limiting effects beyond that area. To the west and southwest, Medium and Medium/Small scale effects would extend to approximately 9.5km;
- Small scale effects would extend up to around 5km across uplands to the northeast reducing to Small/Negligible or Negligible beyond due to the influence from other operational and consented wind farms. Small scale effects would also arise in some locations approximately 10km to the southwest.
- Beyond approximately 10 km from the proposed turbines, effects on character would be Negligible scale.

6.101 Effects on views:

- The extent of Large scale visual effects would generally be limited to locations within approximately 2km, except to the north of the site due to the existing Glen App wind farm.
- Large/Medium scale effects would be experienced from the closest areas on the eastern side of the North Rhins peninsula within 6.5km and within up to 3km east and 5km south across open moorland to the south of the site where the Proposed Development would be more dominant than operational and consented wind farms.
- Medium and Medium/Small scale visual effects would occur in some areas within approximately 5km of the site where visibility is limited by terrain or forestry or where the turbines would be seen beyond or beside Glen App. These effects would also extend up to 10km to the southwest.
- Beyond this, effects would reduce rapidly to Small and Negligible scale with increasing distance.

Effects on Landscape Character

6.102 Descriptions for each of the assessed character areas, types and units are briefly summarised below, along with further observations from site based work.

DWG17: Plateau Moorland – Balker Moor (0 km – contains Site)

6.103 Figure 6.2 illustrates that the Site is located within the north western afforested plateau of this LCT which extends to border South Ayrshire to the north, the Main Water of Luce and Cross Water of Luce to the east and southeast, and Balker Moor to the south. Outside of the commercial forestry within the north western part of the LCT landcover is predominately open moorland with pockets of mixed woodland. Operational Glen App wind farm directly northeast of the Site (within neighbouring LCT SA18c: Plateau Moorlands + Forestry + Wind Farms) already influences the north western part of the LCT. The eastern part of the LCT is heavily influenced by an existing and emerging pattern of wind farms. Operational wind farms Artfield Fell, Balmurrie Fell and Glenchamber are located within the south eastern part of the LCT. Part of operational Kilgallioch wind farm is located within

the northeast part of the LCT and the consented Stranoch wind farm will be located in the northern and central part of the LCT on Balker Moor.

- 6.104 The LCT is described in the DGWFLCS: “...as moorland/ rough grazing and forestry with both extensive pre-improvement (pre-19thc) land-use with remains of buildings and distinct field shapes as well as numerous areas of pre-medieval features.” The DGWFLCS identifies the importance of the East Rhins Archaeologically Sensitive Area (ASA) within Balker Moor and the contribution it makes to the distinctiveness of this LCT. It is also noted that: “The large scale and simplicity of this landscape present potential opportunities to accommodate wind farm development. However, the sense of seclusion and openness and the richness of archaeology found in some areas of moorland not occupied by operational and consented wind farms are key.”
- 6.105 The SAC Glen App Coast & Hills LLA is located directly north, however there are no designated landscape within this LCT. Small areas of the Lochryan and Castle Kennedy GDIs are found on the western fringe and within the south western part of the LCT respectively. Recreational routes within the LCT include sections of the Southern Upland Way which pass through south eastern parts of the LCT and a number of Core Paths, including Core Path 376 which passes through the western side of the Site. On balance this LCT is identified as being of Community value.
- 6.106 The DGWFLCS identifies this character type as having the following susceptibilities to turbines greater than 150 m:
- Scale and openness – High-Medium;
 - Landform – Medium;
 - Land cover and landmark features – Medium;
 - Settlement and archaeology – High.
 - Landscape context – Medium;
 - Perceptual qualities – Medium;
 - Views and visual amenity – Medium; and
 - Landscape values – Medium
- 6.107 Technical Appendix 6.3 sets out a detailed analysis of the susceptibility of this host landscape type to the Proposed Development along with its value. Overall, the LCT is judged to be of Medium susceptibility given the relatively simple landform, landscape pattern and influence of existing wind farm. Considering this together with the Community Value of the landscape this host LCT is judged to be of Medium sensitivity to the Proposed Development.
- 6.108 Direct operational effects would arise through the introduction of 15 turbines and associated infrastructure and the removal and replacement of approximately 64 Ha of coniferous forestry. The Proposed Development would introduce wind turbines into the afforested north western part of the LCT and would locally alter the character of this LCT. The Proposed Development would not directly affect the Balker Moor ASA, which is considered in Chapter 7.

- 6.109 The Proposed Development would extend the influence of large scale wind energy development southeast of Glen App wind farm, between high points Mid Moile and Brockloch Fell. Although the turbines would be larger than those at Glen App they would relate to the large scale of the underlying landform and landcover and would remain contained within the forestry that defines this corner of the LCT. Where visible in combined views from within the LCT the scale difference between the operational Glen App turbines and the proposed turbines would be apparent. Although from the majority of locations within the LCT the Proposed Development would largely read as a foreground element of Glen App. Viewpoint 13 illustrates close proximity combined view of the Proposed Development and the operational Glen App turbines. East and southeast of this viewpoint, existing and consented wind energy development have an increasingly dominant influence on the LCT.
- 6.110 The forestry on the Site and the low surrounding hills would provide some containment from the wider plateau. However, Large scale effects would be experienced within the site itself and over a Limited extent of the LCT immediately surrounding the site in the northwest of the LCT. Outside of the forestry, across open moorland areas, the ZTVs indicate fairly widespread visibility across the LCT within 5km although localised vegetation and undulating terrain would screen some views from lower lying areas around the Main Water of Luce. In the areas of open moorland within 5km south and 3km east, Medium scale effects on character would occur over a Localised extent of the LCT, such as illustrated at Viewpoint 13, although effects would diminish fairly rapidly with increasing distance as Stranoch and other operational and consented development become the greater characterising influences. Beyond 5km, the reduced extent of potential visibility and increased influence of other wind energy development would result in effects of no greater than Small scale, and generally tending more towards Negligible scale, across the wider LCT.
- 6.111 Overall effects on the LCT would be Moderate magnitude. Considering the Medium sensitivity of the LCT these Permanent effects would be Moderate and Not Significant.

DWG16: Upland Fringe – Balker Moor Fringe (0.9 km west of the proposed turbines)

- 6.112 Figure 6.2 illustrates this unit of the LCT extends as a narrow band from west of the Site, running south along the eastern shore of Loch Ryan, and inland to the northeast of Stranraer. There are no operational wind farms within the Balker Moor Fringe unit. Influence from existing wind energy development is largely limited to occasional single turbines (<50 m high) within the landscape unit and some intervisibility with operational Glen App from eastern fringes, as illustrated by Viewpoint 2. The operational North Rhins wind farm is also visible across Loch Ryan from much of the LCT and Carscreugh wind farm is also present in some views from more elevated areas in the southeast part of the LCT.
- 6.113 The Balker Moor Fringe unit includes the ports and part of the coastal hinterland east of Loch Ryan, some of the western slopes which form the high points within neighbouring LCT17 and transitional upland areas east of the Stranraer basin. The DGWFLCS states that this landscape: “predominantly comprise a narrow band of hill slopes between valleys/dales or the coastal edge and the higher foothills/upland landscapes.” Settlement is generally sparse and includes Cairnryan on the northwest coast and Dunragit west of Challoch Hill in the southern part of the landscape unit. The DGWFLCS also states that these

landscapes: “form highly visible ‘edge’ landscapes that often provide a scenic backdrop to adjacent dales, valleys and coasts.”

- 6.114 A small northern part of the Rhins Coast RSA lies within the Balker Moor Fringe unit, as shown on Figure 6.1. The majority of the Loch Ryan GDL is found within the northern part of this landscape unit and part of the north eastern section of Castle Kennedy GDL is found in the central area of the unit. Recreational routes within the landscape unit include sections of the Loch Ryan Coastal path, and a number of Core Paths. In consideration of these features this landscape is identified as Regional value.
- 6.115 Detailed sensitivity assessments for the turbine typology greater than 150 m high are not considered in the DGWFLCS for this landscape unit which is considered to have an overall High sensitivity to large typologies, equivalent to High susceptibility in respect of this assessment. Considering this alongside the Regional value, the sensitivity of this unit of the LCT is judged to be High/Medium.
- 6.116 This landscape unit would be directly affected by a short section of the proposed new access which extends between the A77 and Loch Ryan Coastal Path to the south of the residential property at Little Laight. This would introduce a notable new track on the hillside which would have an influence in the immediate vicinity although this would be moderated by its position just to the east of the ferry terminal and planting to be designed at the detailed stage as set out 6.82 above. Outside the immediate vicinity of the access there would be no notable influence on the character of the LCT.
- 6.117 The ZTVs indicate that theoretical visibility of turbines within this LCT unit is largely confined to a small number of areas, including: an area around Laight Moor at the northern end of the unit; some eastern hill slopes; limited coastal fringes and hinterland; and, from the high point of Challoch Hill (13.4 km southeast). The most notable effects would occur around Laight Moor, as illustrated by Viewpoint 2. Here the turbines would be seen at relatively close proximity, adjacent to but more visible than the existing Glen App turbines. Existing forestry provides a degree of separation and limits the influence of the turbines on this outward focussed coastal landscape. Effects in this Limited part of the LCT would be Medium/Small scale.

More widely across this unit of the LCT the characterising effects of the Proposed Development would be limited by increasing distance and very limited visibility. In areas shown to have potential visibility by the ZTV, localised vegetation would often further reduce this, as illustrated by Viewpoint 3. Permanent effects on the wider LCT would occur over an Intermediate extent and would be no greater than Small scale but more usually would tend towards Negligible. This would result in a Slight/Negligible magnitude of change and, considering the High/Medium sensitivity of the unit, Minor effects which would be Not Significant.

DWG1: Peninsula – Rhins area (4.8km southwest)

- 6.118 This extensive LCT unit encompasses the entire Rhins Peninsula, extending to the edge of the 20km study area, as illustrated by Figure 6.2, and around 20km beyond. The operational North Rhins wind farm is located within the central part of the LCT unit. A number of other operational wind farms are visible from various parts of this unit, as

illustrated by the cumulative ZTV's on Figures 6.8 and 6.9, and have some limited characterising influence – including Glen App, which is visible from much of the north eastern side of the Rhins Peninsula, as illustrated by Viewpoint 4.

- 6.119 The Rhins Peninsula comprises diverse coastlines and sheltered, largely rolling pasture interiors west of the Stranraer basin. Settlements of note within this unit include Leswalt and the western side of Stranraer. The DGWFLCS states that: *“The diverse rugged landform and often strong sense of wildness associated with much of the coast increases sensitivity to all wind turbines.”*
- 6.120 The Rhins Coast RSA extends to cover the north eastern, western and the entirety of the southern coast and hinterland of the Rhins Unit. Lochnaw Castle GDL is found within the north western part of the Landscape Unit. Recreational routes within the Rhins unit include sections of the South West 300, Southern Upland Way and numerous Core Paths. In consideration of these features this unit of the LCT is judged to be of Regional value.
- 6.121 Detailed sensitivity assessments for the turbine typology greater than 150 m high are not considered in the DGWFLCS for this landscape unit which is considered to have an overall High sensitivity to large typologies, equivalent to High susceptibility in respect of this assessment. Considering this alongside the Regional value, the sensitivity of this unit of the LCT is judged to be High/Medium.
- 6.122 The ZTVs indicate theoretical visibility across much of the eastern side of the northeast Rhins peninsula, with large areas of limited to no visibility where the Proposed Development would be screened by intervening landform and vegetation on the western side of the peninsula. Viewpoint 4 illustrates views from the closest and most open area on the peninsula.
- 6.123 In the closest parts of the unit, generally coastal areas to the north of Leswalt, the Proposed Development would often be seen in combination with the operational Glen App wind farm but would generally appear larger and more prominent, extending the presence and influence of wind farms seen in views looking east across Loch Ryan. This would have some impact on characteristics of wildness and remoteness expressed in this part of the LCT but would be moderated by the presence of existing turbines and also the ferry terminals and disused port infrastructure seen on the eastern side of Loch Ryan. Effects on this Limited extent of the LCT unit would be Medium scale, as illustrated at Viewpoint 4. Elsewhere, within more distant parts of this unit of the LCT, Permanent effects would be no greater than Small scale over an Intermediate extent. This would result in a Slight magnitude of change and, taking account of the High/Medium sensitivity, would result in Moderate/Minor effects which would be Not Significant.

DWG2: Coastal Flats – Stranraer basin (5.5km south)

- 6.124 This LCT unit lies between the transitional uplands to the northeast and the Rhins peninsula to the west, as shown by Figure 6.2. There are no operational or consented wind farms within this LCT, although a number of operational wind farms are seen from within the LCT, as illustrated by the cumulative ZTV studies on Figures 6.8 and 6.9, including Glen App to the north, Blackhart Moor to the east and North Rhins to the west.

- 6.125 Part of the Castle Kenndy GDL is located within the north eastern part of the LCT, and a number of promoted routes including the Southern Upland Way, the South West 300 and the Robert the Bruce Trail indicate the recreational value of this landscape. On balance the LCT is considered to be of Regional value.
- 6.126 The LCT is described by the DGWFLCS as a landscape that forms “... a broad and low-lying isthmus contained by the ridge of the Rhins peninsula to the west and the plateau moorlands to the east.” Landform comprises generally simple “flat to gently undulating coastal plain although some more complex rolling ground occurs in the north.” This is a well settled agricultural landscape with the main settlements within the LCT found to the north, including Castle Kennedy and the eastern side of Stranraer.
- 6.127 Detailed sensitivity assessments for the turbine typology greater than 150m high are not considered in the DGWFLCS for this landscape unit which is considered to have an overall High sensitivity to large typologies, equivalent to High susceptibility in respect of this assessment. Considering this alongside the Regional value, the sensitivity of this unit of the LCT is judged to be High/Medium.
- 6.128 The ZTVs indicate large areas of theoretical visibility across much of the eastern side of the LCT unit. However, in the closest parts of the unit, views of the Proposed Development are likely to be limited to blade tips, as illustrated by Viewpoints 7 and 8. In more distant parts of the unit the Proposed Development would be seen as a distant feature in combination with the operational Glen App wind farm, as illustrated by Viewpoint 9.
- 6.129 The Proposed Development would have a very limited influence on the character of this LCT unit, as illustrated by the viewpoints, Permanent effects would be no greater than Small scale in the closest areas but would rapidly diminish to Negligible with increasing distance. These effects would occur across an Intermediate extent of the unit and would result in a Slight/Negligible magnitude of change. Considering the High/Medium sensitivity, effects would be Minor and Not Significant.

SA20b: Southern Uplands (1.1km northeast) and DWG19: Southern Uplands - Beneraird (5.7km northeast)

- 6.130 These two LCT units fall either side of the authority boundary between Dumfries and Galloway and South Ayrshire but form a contiguous unit of the character type. These LCT units cover a number of upland hills and slopes including Milljoan Hill and Beneraird. There are no operational wind farms within these units, however they are strongly influenced by operational and consented wind farms including Arecleoch to the east, Stranoch to the southeast and Glen App to the west.
- 6.131 The unit within South Ayrshire is situated entirely within the Glen App Coast and Hills LLA, as illustrated on Figure 6.1, and there is a Core Path extending between the two authority areas which provides access to Beneraird. On balance this landscape is identified as being of Regional value given the extent falling within the LLA.
- 6.132 The DGWFLCS notes that “These uplands have a generally consistent and homogenous character within Dumfries and Galloway, forming high hills with an often dramatic sculptural landform” and that there is an “absence of built development and large-scale

forestry.” The SALWCS further notes “*This narrow band of hills comprise the well-defined peaks of Beneraird and Milljoan. These hills predominantly have steep, smooth interlocking slopes cut by deeply incised burns and rounded summits but with some broader, more gently sloping slopes also present in places.*” Landscape pattern is generally simple grass moorland with small areas of mixed woodland. Built development within this landscape is generally limited to the pylon line near Dunnack Burn in the north eastern part of the LCT.

6.133 Detailed sensitivity assessments for the turbine typology greater than 150m high are not considered in the DGWFLCS for this landscape unit which is considered to have an overall High sensitivity to large typologies, equivalent to High susceptibility in respect of this assessment. The SALWCS identifies this character type as having the following susceptibilities to turbines greater than 70m:

- Landscape context – High;
- Scale – Medium;
- Landform – High-medium;
- Landscape pattern – Medium;
- Built environment – Low;
- Perceptual qualities – Medium.

6.134 The Proposed Development is located 1 outside these LCT units which, as noted above, are strongly influenced by existing and consented wind farm development. Considering this and the assessments provided in the two capacity studies, the susceptibility of these units to the Proposed Development is judged to be High/Medium. Combined with the Regional value of these units, they are judged to be of High/Medium sensitivity to the Proposed Development.

6.135 The ZTV’s indicate that views of the Proposed Development would be confined to hill summits and south facing slopes in areas already influenced by existing and consented development, as illustrated at Viewpoint 15. It would increase the number and spread of turbines visible to the southwest, adding to the existing influence of Glen App. This direction is less influenced by existing and consented development than areas to the east although overall it would be a limited addition to the total quantum of development surrounding these LCT units. The Proposed Development would result in a Permanent Small scale (tending more towards Small/Negligible in areas beyond 5km) change to character over an Intermediate extent of these units. This would lead to a Slight magnitude of change and effects would be Moderate and Not Significant.

SA14: Upland Glen (2.9 km northwest)

6.136 As illustrated by Figure 6.2, this LCT contains much of the Glen App valley. There are no operational wind farms within this LCT, however the influence of the operational Glen App turbines is experienced from some lower slopes to the north of the valley, becoming more evident from the elevated fringes of this landscape, as illustrated by Viewpoint 1.

6.137 The entirety of this LCT is located within the Glen App Coast & Hills LLA as illustrated on Figure 6.1. Recreational routes include a short section of the Ayrshire Coastal Path and, on balance, this landscape is judged to be of Regional value.

- 6.138 The LCT is described by the SALWCS as: “...narrow and strongly enclosed, predominantly contained by steep sides which rise to form often irregular and highly prominent ridgelines.” There are “well-defined hills on the edge of these glens form landmark features” and landcover is “diverse with riparian woodlands and small walled pastures covering the valley floor and lower slopes”. Settlement is sparse limited to individual properties and farmsteads.
- 6.139 The SALWCS identifies this character type as having the following susceptibilities to turbines greater than 70m:
- Landscape context – High-medium;
 - Scale – High;
 - Landform – High;
 - Landscape pattern – High-medium;
 - Built environment – High;
 - Perceptual qualities – Medium-low.
- 6.140 Considering this along with the assessment provided within the SALWCS it is judged that, on balance, this unit would be of High/Medium susceptibility. Combined with the Regional value, the sensitivity of this LCT unit is judged to be High/Medium.
- 6.141 The cumulative ZTV's on Figures 6.8 and 6.9 illustrate that the Proposed Development would not introduce any notable areas of visibility into the LCT unit that would not already feature views of turbines. Visibility would be largely confined mid and upper valley slopes and hill summits on the northern side of the valley, a Localised extent of the unit. In these areas the Proposed Development would be seen directly beyond or extending to one side of the Glen App turbines, as illustrated by Viewpoints 1 and 14. Considering the influence of the existing turbines in these areas the scale of change would be no greater than Small and more widely would be Negligible. Permanent effects on the LCT unit would be Negligible magnitude which would be Minor/Negligible and Not Significant.

Visual Effects

Visual Receptor Groups

- 6.142 This assessment focuses on the effect on groups of visual receptors. The assessment of effects focuses on the visual amenity from public spaces, though views from groups of dwellings may also be noted in the descriptions. These visual receptor groups are generally assessed as being of High susceptibility to the Proposed Development; those within locally designated landscapes are judged to be of Regional value and those elsewhere Community value, resulting in a High/Medium sensitivity to the Proposed Development unless stated otherwise.
- 6.143 Effects on private residential visual amenity are a separate matter and are assessed within Technical Appendix 6.5.
- 6.144 **Core Path DG 376** (0km - partly within the Site) - this DGC Core path ascends from the Loch Ryan Coastal Path to make a small circuit within the forestry around Brockloch Fell within

the Site. The ZTVs indicate extensive theoretical visibility across the section of this Core Path within the Site and from the open elevated areas on hill slopes dropping back towards the coast.

- 6.145 The Proposed Development would introduce wind farm development into close proximity views from parts of the northern section of this route although where it remains running through forestry this would intermittently screen visibility of turbines and generally mean only a small proportion of the Proposed Development is seen at any one time. Permanent effects on visual receptors from this section of the Core Path would be Large scale from an Intermediate to Localised extent. To the southwest, as the path crosses open ground as it drops towards the coast, effects would tend more towards Large/Medium and Medium, similar to at Viewpoint 2, over a Localised extent. Overall, this would result in a Substantial/Moderate magnitude of change and Major/Moderate effects which would be Significant.
- 6.146 **Main Water of Luce Valley, northeast and east of Penwhirn Reservoir** (1.7km east) – this group covers the minor road (U84W / DGC Core Path 434), dispersed farmsteads and properties, within the north eastern and eastern parts of the Main Water of Luce Valley. These receptors are primarily located between, high points Milljoan and Beneraird (north), Mid Hill (east), and Penwhirn Reservoir (south) and the Main Water of Luce within 5km of the Proposed Development to the southeast.
- 6.147 The ZTV's indicate that there would be theoretical visibility from sections of the local road U84W / Core Path 434 approximately between Laggie Burn and the conifer plantation south of the property at Shennas. Views would be largely open from the southern section of this route between Drumley and White Hill. Visibility of the Proposed Development from the immediate vicinity of the majority of dispersed residences along this route within the Main Water of Luce Valley would generally be restricted by intervening landform, shelterbelts and other localised vegetation. Potential changes to views experienced from the residential property at Shennas are considered further in Appendix 6.5.
- 6.148 Viewpoint 13 at Penwhirn Reservoir on the western side of the Main Water of Luce Valley illustrates the nearest and most open views within this group where the Permanent scale of change would be Large/Medium. This would occur across an Intermediate extent of the group and would result in a Substantial/Moderate magnitude of change and Major/Moderate effects which would be Significant.
- 6.149 **Glen App** (2.2km north) – this group encompasses the dispersed farmsteads, users of roads, and recreational routes within Glen App.
- 6.150 The ZTVs indicate theoretical visibility across mid and upper valley slopes on the northern side of the valley. Views from here would generally be experienced only by infrequent recreational visitors to the hills and people using a short section of the Ayrshire Coast path which is likely to be more frequently visited. There would be no views from the valley bottom, including dispersed settlement and minor roads/tracks. As illustrated by Viewpoints 1 and 14, the Proposed Development would be seen in combination with the operational Glen App turbines, appearing directly behind or just to one side of the existing wind farm. Permanent effects on this group would be no greater than Small scale, as at

Viewpoint 14, over a Limited extent, resulting in a Slight/Negligible magnitude of change and Minor effects which would be Not Significant.

- 6.151 **Northeast Rhins Peninsula (north of The Wig)** (4.7 km west) – this visual receptor group encompasses the coastal margins of the northeast Rhins peninsula, extending north from The Wig and existing small turbines at Clendrie to the tip of the peninsula at Milleur Point, extending inland approximately 2km. The group includes the settlement at Kirkcolm, extensive dispersed rural settlement and a number of core paths and local roads.
- 6.152 The ZTVs indicate fairly extensive visibility across the coastal edge, becoming more intermittent inland. The most open views would be from core path 352 which runs along the coast between The Wig and Kirkcolm where the turbines would be seen prominently in views across Loch Ryan. They would be seen adjacent to the existing Glen App turbines but more prominent and discernibly larger, resulting in a Large/Medium scale visual change (as at Viewpoint 4), increasing to Large scale at the closest section of the route as it rounds the point, on this Limited extent of the group. Similar views would be possible from the southern edge of Kirkcolm although localised vegetation would mean these are quite intermittent.
- 6.153 Woodland around the core of Kirkcolm and extending to the north would mean visibility from this area is very limited, allowing only occasional glimpsed views. Further north and extending inland, frequent roadside and field boundary hedgerows and other localised vegetation restrict views towards the site and would result in intermittent visibility. Views from core path 342, which skirts the coastline, would be more frequent and open. In this more northern and elevated area, the Proposed Development would be seen on the skyline to the far side of Loch Ryan, beyond and to one side of the Glen App turbines. This would result in a Large/Medium scale change to views, tending more towards Medium with increasing distance, over an Intermediate extent of the group. Overall, the Permanent effects on the group would be Substantial/Moderate magnitude and Major/Moderate, which would be Significant.
- 6.154 **Main Water of Luce Valley, southeast of Penwhirn Reservoir and Cross Water of Luce Valley** (5km east and southeast) – this group encompasses the minor roads, tracks and paths along with the village of New Luce and dispersed settlement within the south eastern part of the Main Water of Luce Valley and the Cross Water of Luce Valley.
- 6.155 Within the south eastern part of the Main Water of Luce Valley the ZTV's indicate that there would be some theoretical visibility just over 5km southeast of Penwhirn Reservoir along sections of the single lane U84W and from the elevated valley sides northwest of New Luce. Beyond New Luce theoretical visibility becomes more limited with no visibility indicated at lower elevations.
- 6.156 Within the Cross Water of Luce Valley, the ZTVs indicate generally limited, intermittent theoretical visibility from the majority of the lower elevations of the valley and areas of potential visibility from elevated valley sides. Actual visibility would be largely limited to some proposed turbine hubs and blade tips which would occasionally be seen from the single lane C1W. Some similar views would be anticipated from the dispersed properties and farmsteads within these valleys. Woodland surrounding New Luce would screen views towards the site and mean visibility of the Proposed Development from the village is

unlikely, as illustrated by Viewpoint 11. This receptor group is already strongly influenced by views of existing and consented wind farm development, as illustrated by Figure 6.8, the most prominent of which will be Stranoch. Given the limited visibility in this group and extent of existing and consented development already visible, Permanent effects would be no greater than Medium/Small scale over a Limited extent of this group, resulting in a Slight magnitude of change and Moderate/Minor effects which would be Not Significant.

- 6.157 **Southern Uplands** (beyond 5km north) – this visual receptor group extends to cover the hills within the southern uplands north and northeast of the Proposed Development, including Beneraird, and encompassing recreational visitors to hill summits, core paths and other routes. The ZTVs indicate fairly widespread theoretical visibility across areas outside of woodland or forestry although undulations in topography and larger hills result in notable gaps. The most open views would occur from hilltops, as illustrated by Viewpoint 15, where the Proposed Development would generally appear as an extension of the operational Glen App wind farm. This would result in a Medium/Small scale change to views over a Limited area which already feature extensive operational and consented wind farm development. From less elevated locations, where the Proposed Development is less openly visible, or in closer proximity to other operational or consented development, where these are the primary focus of views, the scale of change would reduce to Small/Negligible or less over an Intermediate extent of the group. Permanent effects on this group would be Slight magnitude, Moderate/Minor and Not Significant.
- 6.158 **Northeast Rhins Peninsula (south of The Wig)** (6.2km southwest) – this receptor group encompasses the coastal margins of the northeast Rhins peninsula, extending south from The Wig and existing small turbines at Clendrie to the outskirts of Stranraer and extending inland to the B798 corridor. The group includes the settlement at Leswalt, extensive dispersed rural settlement and a number of core paths and local roads.
- 6.159 The ZTVs indicate theoretical visibility across much of this group with occasional variations in landform and woodland providing some screening. Taking account of localised undulations in landform and screening by vegetation, actual visibility would be largely focused along the coast and from slightly higher elevations around and near Leswalt. The Proposed turbines would generally appear relatively distant, seen adjacent to the existing Glen App wind farm and occupying a small portion of sweeping views of the skyline to the far side of Loch Ryan, as illustrated by Viewpoint 5, which is located just south of the main part of Leswalt. Outward views from the core area of Leswalt are largely limited by landform and vegetation immediately north of the settlement.
- 6.160 Permanent effects would be no greater than Large/Medium scale over a Limited extent in the northern part of the group, just south of The Wig and Viewpoint 4, although more widely effects would be Medium/Small scale, as at Viewpoint 5, over an Intermediate extent of this group, resulting in a Moderate magnitude of change and Moderate effects which would be Not Significant.
- 6.161 **Northern Rhins Peninsula (inland)** (7.5km west) – this group covers the central and western extent of the northern Rhins Peninsula, away from the eastern coastal fringe. It encompasses local roads, paths and generally dispersed rural settlement. The ZTVs indicate intermittent visibility across the area although frequent roadside and field boundary hedgerows and other localised vegetation would further restrict any potential

visibility. Views are likely to be limited to occasional glimpses of blade tips and some more open but quite distant views of turbines along the skyline, adjacent to Glen App, from the most elevated areas. Permanent visual effects would be Small scale over a Localised extent of the group, resulting in a Slight magnitude of change and Moderate/Minor effects which would be Not Significant.

- 6.162 **Stranraer** (9.2km southwest) – this group encompasses the settlement, users of roads and recreational routes in the vicinity of Stranraer along with dispersed settlement to the south. The ZTVs indicate theoretical visibility across much of Stranraer although buildings and vegetation within the settlement would largely confine views from the coastal edge of the town, as illustrated by Viewpoint 6, where the turbines would be seen extending along the skyline seen across Loch Ryan. To the eastern side of the settlement, views become increasingly focused up the length of Loch Ryan towards its mouth and the Proposed Development would be seen as a more peripheral feature.
- 6.163 To the south of the settlement the landform rises as it transitions into an area that largely comprises farmland. The ZTV studies indicate intermittent visibility from here although field boundary and roadside vegetation would further reduce this. The turbines would be seen as distant skyline features above the intervening landscape from this area and would have less prominence as they do when seen across the open water from coastal locations. Permanent visual effects would be no greater than Medium scale, as at Viewpoint 6, but would tend more towards Medium/Small scale or less inland to the south. These would occur over a Localised extent of the group, resulting in a Moderate/Slight magnitude of change and Moderate/Minor effects which would be Not Significant.

Key Routes

Roads and Ferries

- 6.164 **A77 / South West Coastal 300** (3.2km north) — within the study area this main road extends from Lendalfoot (north) to Stranraer (south). The entirety of this section of the A77 is part of the South West 300, a promoted tourist route extending to 300 miles through southwest Scotland. The road also passes through various locally designated landscapes as it passes through the study area. Accounting for this context this route is considered to be of Regional Value and receptors of High/Medium susceptibility to changes in views. Overall, this route is judged to be of High/Medium sensitivity to the Proposed Development.
- 6.165 The ZTVs indicate that theoretical visibility is largely focused between Stranraer and Leffnoll Point with a small area of potential visibility indicated north of Carlock Hill and Auchencrosh Hill. Viewpoint 7 illustrates closer proximity views from this group where the scale of change would be Small, although as it extends south into Stranraer the proposed turbines would be more openly visible and would result in Medium scale changes to views, similar to those illustrated at Viewpoint 6. These changes would primarily occur for northbound users as turbines would be behind those travelling southbound. To the north of the site the ZTV studies indicate some very intermittent visibility although, in reality, localised roadside vegetation and verges mean views are unlikely.

- 6.166 Permanent effects on the route would be no greater than Medium scale over a very Limited extent, resulting in a Slight magnitude of change and Moderate/Minor effect which would be Not Significant.
- 6.167 **A718** (6.2 km southwest) — within the study area this road connects Kirkcolm and Stranraer passing through rolling agricultural land and along the western side of Loch Ryan. It does not pass through any designated areas and does not form part of any promoted route and is judged to be of Community value. Users of the main road would be of Medium susceptibility to changes in views and on balance are judged to be of Medium sensitivity to the Proposed Development.
- 6.168 The ZTVs indicate extensive visibility along the majority of this route although in reality it would be less than this. The section of the route running along the coast between Kirkcolm and Leswalt is very open and would have widespread visibility, only interrupted by occasional roadside vegetation. However, as it turns inland towards Leswalt itself, and from here down to Stranraer, the route is much more enclosed by roadside vegetation and undulating topography. Views towards the site would from this southern section would be intermittent and fleeting. Viewpoint 4 illustrates the closest and most open view from this route where effects would be Large/Medium scale. These would extend over a Localised part of the route approximately between Kirkcolm and Marian Port Slipway, primarily affecting users travelling in a northern direction. South of here the extent of visibility and scale of effects would reduce and be no greater than Medium scale, similar to illustrated by Viewpoint 6, although would reduce to Medium/Small scale further inland, similar to those illustrated by Viewpoint 5. These would occur over an Intermediate extent of the route, primarily affecting northbound users.
- 6.169 Overall, Permanent effects on users of this route would be of Moderate magnitude and, considering their Medium sensitivity, would be Moderate and Not Significant.
- 6.170 **Cairnryan to Belfast / Larne Ferries** (6.7 km northwest) —these ferry routes extend along the eastern side of Loch Ryan before turbine west towards Northern Ireland in open waters at the mouth of the loch. The landward areas to either side of the loch here fall within locally designated landscapes and the routes are the main point of arrival into Scotland from Northern Ireland. As such, the routes are considered to be of Regional value. Ferry users would be of Medium susceptibility to changes in views. Overall, this route is judged to be of High/Medium sensitivity to the Proposed Development.
- 6.171 The most notable effects during operation would be largely experienced approaching Loch Ryan, north of Milleaur Point as represented by Viewpoint 16. Some of the proposed turbines would be visible in combination with operational Glen App wind farm seen against the skyline above the backdrop moorland ridge in views looking east. The Proposed Development would add some additional turbines to the view, evidently larger than those existing, and marginally extend the presence wind farm development southeast of operational Glen App. This would result in a Small scale change to views over a Localised section of the routes, as illustrated by Viewpoint 16, and further west within increased distance these would reduce to Negligible. As the routes head into Loch Ryan and pass along the eastern side, views of the Proposed Development would rapidly reduce with the turbines entirely screened from view as ferries approach or depart from the terminals. Effects on these routes within Loch Ryan would be Negligible.

- 6.172 Permanent effects on these routes would be Slight magnitude, Moderate/Minor and Not Significant.

Recreational Routes

- 6.173 **Loch Ryan Coastal Path** (2.1km west) –this route extends from Stranraer along the eastern side of Loch Ryan and connects with the Ayrshire Coastal Path within Glen App. The northern section of the route passes through part of the DGC Rhins Coast RSA and SAC LLA E: Glen App Coast. The route is considered to be of Regional value and walkers are considered of High susceptibility to changes in views, overall sensitivity of the users is judged to be High/Medium to the Proposed Development.
- 6.174 The ZTVs indicate theoretical visibility from short sections of the route near the residential property Little Laight, north of Cairnryan, and also from a section of the route between Stranraer and Leffnoll Point. The site access also crosses this route and would have some highly localised effects on views during construction and, to a lesser extent, during operation. Viewpoints 2, 3 and 7 are all located on this route and illustrate that the Permanent change to views would be no greater than Medium scale, at its closest proximity to the turbines, and more typically would be less than this. These would occur over a Limited extent of the route and result in a Slight magnitude of change. Considering the High/Medium sensitivity of users, effects would be Moderate and Not significant.
- 6.175 **Southern Upland Way** (8.9km south) – Figure 6.4 illustrates that this route extends across the southern half of the study area from Portpatrick, passing south of Stranraer, through Castle Kennedy before turning northeast into the uplands. Here it passes through Arecleoch wind farm and amongst the wider cluster of development east of the Site before leaving the study area to the east of Craigmoddie Fell. A short section of the route passes through part of the Castle Kennedy GDL and a short western section passes through the DGC Rhins Coast RSA and the route is known as one of 'Scotland's Great Trails'. As such, the route is considered to be of National value while users of the route are considered of High susceptibility to changes in views. Given the value walkers would place on views and their susceptibility to change overall sensitivity is judged to be High to the Proposed Development.
- 6.176 The ZTVs indicate theoretical visibility from sections of this route largely beyond 10 km south of Stranraer and north of Kilhern Moss. Viewpoint 12 near Kilhern Moss illustrates the view from one of the closest parts of route where existing and consented turbines are already widely visible. Over a Limited extent of the route extending between the Water of Luce and Viewpoint 12, effects would be Small scale. Elsewhere as the route passes through the study area, changes to views from the route arising from the Proposed Development would tend towards Negligible scale. Permanent effects would be Slight/Negligible magnitude, Moderate/Minor and Not Significant.

Specific Viewpoints

- 6.177 No specific viewpoints have been identified as requiring detailed assessment.

Designated Areas

Local Landscape Areas

Rhins Coast RSA (1.5 km west)

- 6.178 The 2018 Dumfries and Galloway Regional Scenic Area Technical Paper examines and defines RSAs (illustrated on Figure 6.1) with descriptions that identifies the extent of LCTs and landscape units within each RSA.
- 6.179 This RSA includes the eastern shore of Loch Ryan, north of Cairnryan and the eastern coast of the Rhins peninsula, north of The Wig, wrapping all the way round the western coast past the Mull of Galloway to the south. The RSA includes the coastal and hinterland reaches of DGC landscapes DWG1: Peninsula – Rhins Area and DWG16: Upland Fringe – Balker Moor Fringe. It is noted that “*The boundaries of the designated area were modified to reflect the visual envelope of the sea...*” which are of particular importance to the designated area and that “*Views of the coast generally tend to be lost over near ground horizons within a kilometre or so from the shore, other than from the crests of hills.*” Other characteristics are largely internal including “*...steep cliffs of varying height, plus raised beaches and rocky foreshores, with small rocky and sandy bays connected by a ribbon of low lying land.*” Taking account of these special qualities and the importance of seaward views, the susceptibility of the RSA to the Proposed Development is judged to be Medium. Taking account of the Regional value indicated by the designation, and the fact that proximity to Loch Ryan does not fully express the same “*dominant presence of the sea*” as experienced elsewhere within the RSA, sensitivity is considered to be Medium.
- 6.180 As set out above, Medium and Medium/Small scale effects on character would occur from the part of this RSA on the eastern side of Loch Ryan and the closest parts of the RSA to the west. Visual effects from the northeast Rhins peninsula, coinciding with the RSA, would be up to Large/Medium in the east-facing part of the designation, as identified for viewpoint 4 at Kirkcolm, reducing with increased distance and as the coast turns to face northwards. Visibility of the turbines from the extensive area of west-facing coast would be limited to occasional glimpsed views at distances of 10km or more.
- 6.181 A very small part of the RSA north of Cairnryan would be directly affected by a short section of the proposed new access, which extends between the A77 and Loch Ryan Coastal Path south of the residential property at Little Laight.
- 6.182 Effects on the special qualities of this area would be Large/Medium scale for a Limited extent of the designated area north of The Wig and Medium to Small scale for Localised extent including the area affected by the access track and more distant views of the turbines from the north-facing coast. The magnitude of change would be Moderate and effects would be Moderate and Not Significant.

Glen App Coast and Hills LLA (2.2 km north, northwest).

- 6.183 The 2018 South Ayrshire Local Landscape Designations Review identifies the boundaries of the various LLAs (illustrated on Figure 6.1) sets out the reasons for designation and provides a narrative description of “*character and special qualities*”. The LLAs largely correspond

to the boundaries of the underlying LCTs and the narrative descriptions primarily focus on character, with occasional reference to specific recreational or visual interests.

6.184 This LLA covers the Glen App valley, hills to the north including the range of Finnart, Sandloch, Penderry and Carlock and southern upland hills including Milljoan to the southeast. The LLA include parts of LCTs SA1d Raised Coastal Beach with Rock Shore, SA 14 Upland Glen, SA18c: Plateau Moorlands + Forestry + Wind Farms and SA20b: Southern Uplands.

6.185 The 2018 Designations Review identifies the following reasons for designation:

“This is a well-known and popular area, the scenic quality of which is appreciated by motorists on the A77 and those enjoying the coastal areas and footpaths, including walkers on the Ayrshire Coastal Path and Loch Ryan Coastal Path which pass through this area. It contains numerous sites which are designated for their cultural or nature conservation importance, including open moorlands and the Glen App Estate. It is also within the area initially recommended for inclusion in the proposed Galloway National Park.”

6.186 The character and special qualities of the LLA which could be affected by the introduction of the Proposed Development would be largely limited to the *“Long and varied views are characteristic of this LLA. They include spectacular views of the coast, sea and Ailsa Craig and also into the Stinchar valley from roads, footpaths and hill tops. The moorland summit of Beneraird which provides the backdrop to this landscape has panoramic views although some of these are now impacted by nearby wind turbines. The area is popular for recreation, including walking (the Ayrshire Coastal Path and the Loch Ryan Coastal Path pass through the area), fishing and birdwatching.”*

6.187 Other stated characteristics and special qualities are largely internal relating to landform, land cover and historical features. Taking account of the sensitivities identified above for the character types and visual receptors in Southern Uplands and Glen App, the designation is judged to be of High/Medium sensitivity to the proposed development.

6.188 In respect of the views noted in the LLA description, the ZTV studies illustrate there would be little potential visibility from the A77 within the LLA and in reality this would be less than illustrated due to localised vegetation and landform providing further screening (as set out above). Views from the Ayrshire Coast Path would be limited to a section of < 1km in the vicinity of Viewpoint 1 where there would be a Small scale change to views and effects on users of the wider route would be Negligible. The Proposed Development would be seen in panoramic views from hills in the southern uplands although, as noted in the LLA description, these are already influenced by turbines including Glen App which would be seen between these summits and the Proposed Development. The Proposed Development would not result in anything more than a Medium/Small scale changes to views from this part of the LLA, as illustrated by Viewpoints 14 and 15. The ZTV's illustrate that there would be no views from the Glen App estate or from the Loch Ryan Coast path where it passes through the LLA. Other noted views including of the Stinchar Valley and Ailsa Craig would not be influenced as the Proposed Development is on the opposite side of the LLA and, where visible, would be seen in the opposite direction.

- 6.189 Some Small scale effects on character would also arise in areas closest to the site as identified within the assessment for the relevant character types above.
- 6.190 Overall, Medium/Small and Small scale landscape and visual effects would occur over a Localised extent of the LLA. The magnitude of change would be Slight and effects would be of Moderate/Minor significance and Not Significant.

Summary of Landscape and Visual Effects

- 6.191 Effects on the receptors assessed are summarised in the table below. Significant effects are underlined.

Table 6.9: Summary of Landscape and Visual Effects

Receptor	Description	Sensitivity	Magnitude	Significance	Beneficial / Neutral / Adverse
Landscape Character					
DWG17: Plateau Moorland	Large scale effects within site and immediate context, Medium scale within 3km to east and 5km to south.	Medium	Moderate	Moderate (Not Significant)	Adverse
DWG16: Upland Fringe – Balker Moor Fringe	Medium-small scale effects around Laight Moor, limited areas of small scale effects elsewhere.	High/Medium	Moderate Slight	Minor (Not Significant)	Adverse
DWG1: Peninsula – Rhins area	Medium scale effects on closest areas around Kirkcolm, small scale effects up to 10km from the site.	High/Medium	Slight	Moderate/Minor (Not Significant)	Adverse
DWG2: Coastal Flats – Stranraer Basin	Localised areas of small scale effects	High/Medium	Slight/ Negligible	Minor (Not Significant)	Adverse
DWG19: Southern Uplands & SA20b: Southern Uplands	Small scale effects as a result of views from hill summits within approximately 6km.	High/Medium	Slight	Moderate (Not Significant)	Adverse
SA14: Upland Glen	Slight increase in the influence of turbines in areas where visibility arises	High/Medium	Negligible	Minor/Negligible (Not Significant)	Adverse

Receptor	Description	Sensitivity	Magnitude	Significance	Beneficial / Neutral / Adverse
Visual Receptor Groups					
Core Path DG 376	Effects on the route	High/Medium	<u>Substantial/Moderate</u>	<u>Major/Moderate (Significant)</u>	<u>Adverse</u>
Main Water of Luce Valley, northeast and east of Penwhirn Reservoir	Overall effects on the group	High/Medium	<u>Substantial/Moderate</u>	<u>Major/Moderate (Significant)</u>	<u>Adverse</u>
Glen App	Overall effects on the group	Medium	Slight/Negligible	Minor (Not Significant)	Adverse
Northeast Rhins Peninsula (north of The Wig)	Overall effects on the group	High/Medium	<u>Substantial/Moderate</u>	<u>Major/Moderate (Significant)</u>	<u>Adverse</u>
Main Water of Luce Valley, southeast of Penwhirn Reservoir and Cross Water of Luce Valley	Overall effects on the group	High/Medium	Slight	Moderate/Minor (Not Significant)	Adverse
Southern Uplands	Overall effects on the group	High/Medium	Slight	Moderate/Minor (Not Significant)	Adverse
Northeast Rhins Peninsula (south of The Wig)	Overall effects on the group	High/Medium	Moderate	Moderate (Not Significant)	Adverse
Northeast Rhins Peninsula (inland)	Overall effects on the group	High/Medium	Slight	Moderate/Minor (Not Significant)	Adverse
Stranraer	Overall effects on the group	High/Medium	Moderate/Slight	Moderate/Minor (Not Significant)	Adverse
Key Routes					
A77 / South West Coastal 300	Overall effects on the route	High/Medium	Slight	Moderate/Minor (Not Significant)	Adverse
A718	Overall effects on the route	Medium	Moderate	Moderate (Not Significant)	Adverse

Receptor	Description	Sensitivity	Magnitude	Significance	Beneficial / Neutral / Adverse
Cairnryan to Belfast / Larne Ferries	Overall effects on the route	High/Medium	Slight	Moderate/Minor (Not Significant)	Adverse
A75 / Robert Bruce Trail	Overall effects on the route	High/Medium	Negligible	Minor (Not Significant)	Adverse
Loch Ryan Coastal Path	Overall effects on the route	High/Medium	Slight	Moderate (Not Significant)	Adverse
Southern Upland Way	Overall effects on the route	High	Slight/Negligible	Moderate/Minor (Not Significant)	Adverse
Designated areas					
Rhins Coast RSA	Effects on the designation	Medium	Moderate	Moderate (Not Significant)	Adverse
Glen App Coast and Hills LLA	Effects on the designation	High/Medium	Slight	Moderate/Minor (Not Significant)	Adverse

Cumulative Effects

Introduction

- 6.192 In line with GLVIA3 (paragraph 7.5) and SNH guidance on Assessing the Cumulative Impact of Onshore Wind Energy Developments (paragraph 33), the assessment of cumulative effects should focus on whether there are any likely significant cumulative impacts which are reasonably foreseeable and which are likely to influence the decision making of the Proposed Development, rather than an assessment of every potential cumulative effect. As recommended by the SNH cumulative guidance, this assessment considers the 'additional cumulative change which would be brought about by the proposed development' (paragraph 70), assuming other schemes in scenario are already present.
- 6.193 In this section, the Proposed Development is referred to as Mid Moile in order to prevent confusion and differentiate it from other proposed developments that are being considered.

Assessment Scenarios

- 6.194 The assessment of cumulative effects focusses on receptors within the 20km detailed study area, as for the main LVIA, where there is the greatest potential for significant cumulative effects to occur. Table 6.10 below sets out those schemes within approximately 30km of the Proposed Development that are considered within the cumulative assessment, as illustrated on Figure 6.7.

Table 6.10: Cumulative Wind Farm Developments

Development	Status	Distance/ Direction	Number of Turbines	Tip Height
Operational and Consented				
Glen App	Operational	0.5km NW	11	125.5m
Arecleoch	Operational	7km NE	60	120m
Kilgallioch	Operational	8.4km E	99	146.5m
Balmurrie Fell (Artfield Fell Extension)	Operational	11km	7	80m
Kilgallioch Extension	Consented	11.7km E	11	180m
Artfield Fell	Operational	11.9km E	15	74m
Glenchamber	Operational	12.6km SE	11	126.5m
Airies Fell	Operational	14.8km E	14	126.5m
Mark Hill	Operational	19km NE	28	110m
Carscreugh	Operational	14.4km SE	18	78m
North Rhins	Operational	13.6km SW	11	100m
Knocknain	Operational	13.8km SW	1	66.62m
Barlockhart Moor	Operational	17km SE	4	115m
Stranoch	Consented	3.6km E	20	140m (2) + 149.9m (8) + 170m (10)
Arecleoch Extension	Consented	9.1km NE	13	200m
Chirmorie	Consented	9.3km NE	21	149.9m
Planning				
Clauchrie	Planning	23km NE	18	200m
Craiginmoddie	Planning	33km NE	14	200m
Scoping				
Airies II	Scoping	11.2km E	9	200m
Knockodhar	Scoping	19.9km NE	14	200m

- 6.195 Operational and consented developments have been included within the landscape and visual baseline within the main assessment. Given the three consented schemes have all been granted permission recently and that they are for turbines in line with current industry trends there is no reason to assume they would not be constructed in line with their current consents.
- 6.196 It should be noted that whilst this assessment was being finalised three proposed wind farms were granted consent; Arecleoch Extension, Kilgallioch Extension and the revised proposal for Stranoch wind farm (also known as Stranoch 2). The consented status of these schemes is reflected within the assessment and illustrated on Figures 6.2, 6.7 and 6.8. However, visualisations had already been completed by the time consent had been granted and they remain shown as 'In Planning' in the wireline visualisations. They have

not been updated in wirelines as the layouts used in the visualisations are those of the consented schemes, it is simply the colour indicating status that would differ along with the naming of Stranoch (labelled as Stranoch 2 in wirelines).

- 6.197 The only scheme in planning within 30km is Clauchrie which is distant and there is an extensive band of operational and consented development situated directly between Clauchrie and Mid Moile. As such, the addition of Mid Moile to a baseline that included Clauchrie would not result in any effects that are different to those assessed for Mid Moile alone and they are not considered further.
- 6.198 There can be little certainty about the two schemes in scoping, either that they will eventually come forward as applications or, if they do, whether they would resemble the schemes set out at scoping. As with those schemes in planning, there is also an extensive band of operational and consented development situated directly between these and Mid Moile. As such, the addition of Mid Moile to a baseline that included either or both of these would not result in any effects that are different to those assessed for Mid Moile alone and they are not considered further.

Night-time Effects

Summary of Visible Aviation Lighting Requirements and Mitigation

- 6.199 The Proposed Development will require visible aviation lighting. The current CAA policy statement (July 2017) requires that the lights will comprise a single 2000 candela steady red light mounted on the nacelle and a 32 candela steady red light mounted around the tower (three are required so as to be visible in all directions) at half the hub height.
- 6.200 The lights must be on "by night", which is defined in UK air legislation as 30 minutes after sunset until 30 minutes before sunrise. The switching of the lights on and off would be controlled by a timer, and not by photocells or similar that respond to light levels, thereby not giving rise to effects in the daytime. During periods of greater ambient light, (e.g. twilight, dusk, dawn) there would be a reduced effect as the contrast of the aviation lighting against the background would be less. The hours of darkness vary considerably in Dumfries and Galloway and South Ayrshire throughout the year meaning that in summer, experience of the lighting while people are typically more active and likely to be outside is considerably reduced. In winter, however, the lighting would be in use for greater periods of time and potentially active during peak activity times, i.e. morning and evening rush hours.
- 6.201 The aviation lights would be visible as points of light, especially where there would be a high degree of contrast at the viewpoint (i.e. the lights were seen against a dark sky / dark landmass or where there would be little or no existing artificial light sources present). This assessment assumes a 'worst case' of all turbines being lit and to include standard mitigation of dimming from 2000cd to 200cd in clear conditions.

Approach and Scope of Assessment

- 6.202 The methodology used in this assessment is consistent with GLVIA3 and that set out in Technical Appendix 6.1.
- 6.203 There is a distinction between light pollution or nuisance and the effect of lighting on the character and amenity of the landscape at night. This is not a technical lighting assessment but focusses on the night-time effects as a result of the introduction of new artificial lighting within the landscape, with consequent effects on the night character and visual amenity of the area.
- 6.204 In this context, effects on landscape character are almost exclusively concerned with perceptions of darkness and the absence of development, as the key characteristic constituent elements of landscapes are generally obscured after dark. Figure 6.10 illustrates the existing light environment with landscape character overlaid.
- 6.205 The ZTV studies on Figures 6.11 and 6.12 illustrate the potential visibility of the proposed visible turbine lighting across the study area.
- 6.206 Visualisations at dawn/dusk have been prepared for viewpoints 4, and 7 and illustrate the proposed lighting unmitigated in order to illustrate a 'worst case'. These viewpoints have been selected as representative of potential landscape and visual receptors which are most likely to be affected at night from a range of directions and elevations.

Potential Effects

- 6.207 The aviation lights would be visible as points of light, especially where there would be a high degree of contrast at the viewpoint (i.e. the lights were seen against a dark sky / dark landmass or where there would be little or no existing artificial light sources present).
- 6.208 During periods of greater ambient light, (e.g. twilight, dusk, dawn) there would be a reduced effect as the contrast of the aviation lighting against the background would be less. At Stranraer, daylight is at its longest on June 20, where daylight hours would be approximately 03:43 – 23:00 and full darkness (times outside of Civil Twilight) would last approximately 4.75 hours⁷. Daylight is shortest on 21 Dec, where daylight hours would be approximately 07:57 – 16:39⁸. This variation means that in summer, experience of the lighting whilst people are typically more active and likely to be outside is considerably reduced. In winter, however, the lighting would be in use for greater periods of time and potentially active during peak activity times, i.e. morning and evening rush hours.
- 6.209 Due to the location of the lighting on the turbines relative to the rotating blades, this can result in a flashing or flickering effect caused by the screening effect of blades as they travel past the lights. These effects are dependent upon the rotation speed of the blades, direction of wind and the location of the receptor. Where a number of lit turbines are present in the view, such flashing is likely to be uncoordinated.

⁷ <https://www.timeanddate.com/sun/@2641657?month=6&year=2021>

⁸ <https://www.timeanddate.com/sun/@2641657?month=12&year=2021>

Sensitivity of Receptors

- 6.210 For landscape character, susceptibility is judged based on the degree to which they are currently characterised by darkness. Value is judged based on the same factors as for the daytime assessment unless particular factors suggest otherwise. For example, identification of a Dark Sky Park which would increase value; or where factors that contribute to value in daytime are irrelevant at night – which may reduce value at night.
- 6.211 For visual receptors, the value attached to night-time views are considered to be low unless there is a particular feature that can be best appreciated in the hours of darkness. This may include views of stars and the night sky that are only possible in particularly dark areas or views of well-known landmarks that are lit up at night. The susceptibility of visual receptors also differs at night reflecting the different activities people undertake in the hours of darkness. For example, drivers using roads at night tend to be more focused on the road and the area illuminated by their headlights than during the day and may have oncoming headlights, cats eyes or other reflective signage drawing their attention, resulting in lower susceptibility. This is particularly the case on unlit rural roads that may be narrow and winding. On the other hand, people taking part in activities requiring darkness, such as stargazing, would be of higher susceptibility.

Night-time Cumulative Impacts

- 6.212 Of the cumulative developments within the detailed cumulative assessment those which have, or are over 150m where obstacle lighting would be required include:
- Stranoch (3.6km east) - consented
 - Arecleoch Extension (9.1km northeast) – consented
 - Kilgallioch Extension (11.7km east) – consented
 - Clauchrie (22km north) – planning
- 6.213 In order to consider a worst case scenario it is assumed that all turbines over 150 m in each wind farm would be lit by night with standard 2000 cd nacelle lights and 32 cd tower lights. It is assumed that the only mitigation included within each scheme would be the 'standard' CAA approved automatic dimming of the lights to a nominal intensity of 200 cd during periods of good visibility.
- 6.214 Given that Clauchrie is distant and has other consented schemes requiring visible aviation lighting located between them and the Proposed Development it is unlikely there would be any notable cumulative effects arising with this schemes. Aviation lights on the consented developments are considered as part of the night-time baseline.

Assessment of Night-time Effects

Existing night-time environment of the Study Area

- 6.215 Figure 6.10 gives a broad impression of the level of existing lighting within the study area based on satellite observations of light pollution. It illustrates that the existing night-time environment in the study area is typically dark although it is punctuated by lighting

associated with settlements. Generally, the larger the settlement the more intense the light levels are and the more that these extend to affect the surrounding landscape. This pattern is largely supported by on site observations.

- 6.216 The coastline around Loch Ryan is notably influenced by settlement lighting. Stranraer is the largest and most prominent of these although lights associated with smaller settlements are also clear features in the night time landscape here. The operational lighting at the two ferry terminals are also notable light sources, more prominent than those of smaller and more inland settlements. In the darker areas surrounding the settlements and ferry terminals these are seen as bright point sources of light with some degree of associated skyglow. The high intensity red flashing light at Cairnryan lighthouse is also a prominent feature in night time coastal views. Street lighting is generally absent outside of the settlements although car headlights are often clearly visible on routes surrounding Loch Ryan with frequent traffic movement on the A77, A751 and A75 – particularly at times when ferries are unloading or preparing to depart.
- 6.217 Inland towards the site the landscape is generally much darker with some small light sources associated with dispersed houses and farms and also some brighter lights on buildings and infrastructure at Penwhirn Reservoir. Aviation lights at the consented Stranoch, Kilgallioch Extension and Arecleoch Extension wind farms will also be a feature within the dark night skies of the uplands once they are constructed.

Zone of Theoretical Visibility

- 6.218 Figure 6.12 illustrates the ZTV for the hub lights on the turbines within the Proposed Development and illustrates the maximum extent that these would potentially be visible from. It illustrates that theoretical visibility of the proposed aviation lighting would be extensive within around 5km from the upland moorland plateau containing part of the Main Water of Luce Valley to the northeast, east and south. Although there would be limited to no theoretical visibility from the lower elevations of the Valley. At around 3km to the north and west the varied landform of Glen App and the Loch Ryan coast limit theoretical visibility to the highest elevations.
- 6.219 Beyond 5km and within 10km, theoretical visibility to the north is very limited, to the east potential visibility is indicated from higher elevations including from Beneraid to the northeast. From the Cross Water of Luce Valley theoretical visibility is largely limited to the highest valley sides. To the south and west visibility is indicated across much of the western and south western side of Loch Ryan, the eastern side of the Rhins peninsula and across much of Stranraer.
- 6.220 Beyond 10km theoretical visibility to the north is very occasional and largely limited to higher elevations to the east and southeast, including from an area around Kilhern Moss. To the south and southwest visibility is indicated from the higher inland areas of the Stranraer Basin and the eastern side of the Rhins Peninsula.
- 6.221 Effects on landscape or visual receptors outside the areas of visibility shown on the ZTV study would be Negligible and are not considered further.

Night-time Effects on Landscape Character

- 6.222 In terms of the potential for landscape character effects at night, these are almost exclusively concerned with perceptions of darkness and an absence of development as the remaining key characteristic constituent elements of landscapes are generally obscured after dark. The following landscape character types were assessed as either having Significant daytime effects or identified as being particularly susceptible to night-time impacts.
- 6.223 The landscapes most likely to experience significant effects are those which are less closely associated with lighting (i.e. not the settled valleys which also include the main A roads) and are sufficiently close to the Site that the introduction of aviation lighting nearby would be fundamentally different to other remote sources of artificial lighting.
- 6.224 The main source of effects would occur as a result of the nacelle lighting which would be both brighter and more widely visible than the tower lights. As detailed above, Figure 6.12 indicates that the primary areas of theoretical visibility of the nacelle lights would include the host DWG17: Plateau Moorland, SA20b: Southern Uplands and DWG19: Southern Uplands - Beneraird and SA14: Upland Glen.
- 6.225 Although some limited theoretical visibility of aviation lighting is indicated from areas within the DWG2: Coastal Flats – Stranraer Basin and DWG16: Upland Fringe – Balker Moor Fringe and DWG1: Peninsula – Rhins Area LCTs, potential effects on these landscapes are considered unlikely to be above Negligible given the extensive influence of existing lighting around Loch Ryan, limited visibility and intervening distance.

DWG17: Plateau Moorland – Balker Moor

- 6.226 The DGWLCS does not specifically mention turbine lighting. In terms of perceptual qualities which could be considered a key characteristic that could be affected by the aviation lights on the proposed turbines the DGWLCS states that: “A sense of remoteness and naturalness can be experienced in areas of open moorland although the presence of reservoir infrastructure, wind farms and forestry reduces these perceptual qualities in other areas.” This LCT is considered to be of Medium susceptibility and Community value. Overall, the LCT is judged to be of Medium sensitivity to visible aviation lighting.
- 6.227 As illustrated by Figure 6.12, proposed aviation lighting would be theoretically visible in the immediate vicinity of the Site extending across the north eastern part of the LCT where aviation lights at Stranoch will be present. Theoretical visibility would extend to the northern and western extents of the LCT, although these are largely within forestry where lights would only occasionally be visible, and to around 4 km to the northeast, east and south with areas of limited and no visibility associated with the Main Water of Luce Valley and lower elevations to the south. Beyond 5km theoretical visibility of aviation lighting would be largely limited to higher elevations to the north and east of New Luce. The Proposed Development would introduce an additional cluster of red aviation lighting into an area already featuring some night-time lighting southeast of Penwhirn Reservoir, at Stranoch wind farm and further to the east at Arecleoch Extension.

6.228 This would result in Permanent, Medium scale effects over a Localised extent of the LCT as a result. This would lead to a Moderate magnitude of change and, considering the Medium sensitivity of the LCT, this would result in Moderate effects which would be Not Significant.

SA20b: Southern Uplands and DWG19: Southern Uplands - Beneraird

6.229 Neither the DGWLCS nor the SALWCS specifically mentions turbine lighting. In terms of perceptual qualities which could be considered a key characteristics that could be affected by the aviation lights on the proposed turbines the DGWLCS states that “a general absence of built development within the majority of this upland area gives a strong sense of naturalness.” The SALWCS also notes that “These hills are little modified although their close proximity to large scale wind farm development and extensive commercial forestry in adjacent character types reduces the sense of wildness.” This LCT is considered to be of Medium susceptibility and, given it extends partly into the Glen App Coast and Hills LLA, Regional value. Overall, the LCT is judged to be of Medium sensitivity to visible aviation lighting.

6.230 As illustrated by Figures 6.11 and 6.12, proposed aviation lighting would be theoretically visible across elevated areas within the landscape unit, including the summit of Beneraird and some of the associated southern slopes. The Proposed Development would introduce an additional a cluster of red aviation lighting into a dark area, 5.7km from the southern extents of this landscape unit, albeit in the context of other clusters of turbine lights at Stranoch and Arecleoch Extension.

6.231 This would result in a Permanent, Small scale effect over an Intermediate extent of the landscape unit resulting in a Slight magnitude of change. Overall, this Medium sensitivity LCT would experience Moderate/Minor effects which would be Not Significant.

Night-time Visual Effects

6.232 The impact on visual receptors at night is different from the impact in the daytime presented in the main LVIA. The receptors potentially affected are different and their sensitivity may also be different.

6.233 People in settlements would remain of similar sensitivity. However, road users would attribute a low value to the view, as amenity value would be limited from the roads at night in this area, which reduces their overall sensitivity. Core Paths and other outdoor recreational locations are generally unlikely to be used at night and would have limited amenity value, they are therefore not considered.

Residents and Communities

6.234 Effects of aviation lighting on the residential amenity of the most affected properties is considered within Technical Appendix 6.5. Views for people at night more widely within the surrounding settlements and dispersed rural properties are judged to be of High susceptibility and Community value, resulting in a High/Medium sensitivity to the proposed aviation lighting.

- 6.235 As illustrated by the ZTV on Figures 6.11 and 6.12, the main areas of settlement likely to have views of aviation lighting are Stranraer and the dispersed settlements and residential properties across the eastern side of the Rhins Peninsula. Most affected of these areas would be dispersed settlement and roads on the eastern side of the Rhins Peninsula where there is no street lighting and where the baseline night-time environment tends to be relatively dark albeit punctuated by prominent lighting associated with the ferry terminals north and south of Cairnryan, seen across Loch Ryan and, to a lesser extent, lighting at Stranraer. In these areas the Proposed Development would introduce visible aviation along a relatively dark skyline, although this is seen above bright lights at the ferry terminals and the high intensity red light on Cairnryan lighthouse, as illustrated by the night time montage from Viewpoint 4. They would be a noticeable feature in night time views but would be far less bright and prominent than existing lights on the eastern shores of Loch Ryan, they would also be more distant. They would result in a Small scale change to the view over an Intermediate extent of the northeast Rhins peninsula. This would result in Permanent effects of Slight magnitude which, considering the High/Medium sensitivity of visual receptors here, would be Moderate/Minor and Not Significant.
- 6.236 Views from roads and dispersed settlement in the Main Water of Luce and Cross Water of Luce Valleys would feature turbine lights of the Proposed Development at closer proximity. They would add an additional group of red lights into the relatively dark night sky although the few people present in this area at night will already experience views of lights on turbines at Stranoch and Arecleoch Extension wind farms. Some areas, such as around Penwhirm Reservoir are also influenced to a degree by existing ground level lighting. The ZTV's illustrate that lights would be seen in views from an Intermediated extent of this area where they would result in no more than a Medium scale change to views, reducing to less than this in more distant areas. This would result in Permanent effects of Moderate magnitude which, considering the High/Medium sensitivity of visual receptors here, would be Moderate and Not Significant.

Designated Areas

Rhins Coast RSA

As set out above, night-time effects on the character of the Rhins peninsula would be Negligible due to the existing influence of lights along the eastern shores of Loch Ryan. Visual effects would be slightly greater although would be no more than Moderate/Minor and Not Significant. Given the very limited effects of the proposed aviation lighting and absence of any designated characteristics relating to dark night skies, it would not affect the special character of the RSA or the purpose of its designation.

Glen App Coast and Hills LLA

- 6.237 The ZTV's indicate that the only areas within this LLA where there would be notable potential visibility of proposed aviation lighting would be in the remote areas of the Southern Uplands and the south facing mid and upper slopes of Glen App. There are no visual receptors in these areas that would be sensitive to aviation lighting so the only notable effects would relate to character and qualities of remoteness or darkness. The underlying character of these areas is already influenced by lights associated with the A77 corridor and turbine lights on the consented Stranoch and Arecleoch Extension wind

farms. As set out above, the Proposed Development would not result in any notable effects at night on the Upland Glen LCT and effects within the Southern Uplands LCTs would be no more than Small scale over an Intermediate extent resulting in a Slight magnitude of change. Taking account of the Medium Sensitivity of the character types these effects would be of Moderate/Minor significance and Not Significant.

Non-Technical Summary

- 6.238 The Proposed Development would introduce additional, larger turbines to the south of Glen App wind farm.

Construction/Decommissioning Stage Effects

- 6.239 Construction and decommissioning stage effects would be substantively the same. They would involve short-term activities and effects which would be Not Significant.
- 6.240 The greatest effects during the construction phase would arise from the standing turbines, and large cranes used to erect these, during the final stages of construction – by which point the effects would be the same as for those during operation.

Operational Stage Effects

Effects on Landscape Character

- 6.241 There would be no significant effects on landscape character. Effects on the host landscape character unit DWG17: Plateau Moorland, would be Moderate, and would arise as a result of the increased proximity and influence of the turbines compared to the existing and consented wind farms within the site areas within 3km to east and 5km to south. Effects on all other landscape character types would also be of Moderate significance or less.

Visual Effects

- 6.242 Significant visual effects would be limited, confined to receptors in relatively close proximity to the Proposed Development where there would be open views. These would be Major/Moderate and Adverse within the Main Water of Luce Valley, northeast of Penwhirn Reservoir receptor group; across the Northeast Rhins Peninsula (north of The Wig) and on the elevated section of Core Path DGC 376 within the Site.
- 6.243 All other visual receptors within the study area would experience Moderate effects or less which would be Not Significant.

Designated Areas

- 6.244 No significant effects would arise upon national designations. Localised effects on the locally designated Rhins Coast RSA in areas closest to the site would give rise to Moderate (not significant) effects, with the extensive west-facing coast and seaward views within the designated area experiencing negligible effects. Localised effects on character and

views within the southern areas of the proposed Glen App Coast and Hills LLA would result in Slight (Not Significant) effects.

Cumulative Effects

- 6.245 The cumulative assessment considers the additional effects that would arise from the introduction of Mid Moile given the prior presence of other wind farms included in each scenario. Given the three consented schemes within the study area have all been granted permission recently and that they are for turbines in line with current industry trends there is no reason to assume they would not be constructed in line with their current consents. All existing and consented wind farms are considered as part of the baseline assessed in the main assessment.
- 6.246 Schemes in scoping are noted but are not usually included within assessment scenarios given the high degree of uncertainty surrounding them at this stage. There is no guarantee that they will come forward as planning submissions and the nature of the proposed schemes may be subject to change.
- 6.247 The only wind farm in planning within 30km is Clauchrie which is distant and there is an extensive band of operational and consented development situated directly between Clauchrie and Mid Moile. As such, the addition of Mid Moile to a baseline that included either or both of these would not result in any effects that are different to those assessed for Mid Moile alone.

Night-time Effects

- 6.248 The Proposed Development comprises turbines of over 150m in height and, as such, are required by air traffic safety policy to include visible aviation lighting. Given the context of consented wind farms including aviation lighting nearby within the host character unit at Stranoch and to the northeast at Arecleoch Extension and the presence of lighting associated with settlement, roads and marine navigation around Loch Ryan, there would be no significant effects on night-time landscape character.
- 6.249 For similar reasons, there would also be no significant night-time effects on visual receptors. Nearby receptors along the eastern shore of Loch Ryan would have limited visibility of the lighting, and in views looking across Loch Ryan the turbine lights would be seen in the context of brighter and closer lighting along the Loch shore. Views from roads and dispersed settlement in the Main Water of Luce and Cross Water of Luce Valleys would see an additional group of red lights in the relatively dark night sky although the few people present in this area at night will already experience views of lights on turbines at Stranoch Arecleoch Extension and Kilgallioch Extension wind farms.
- 6.250 The locally designated areas closest to the site are not identified as being valued for their night-time character and views and would not experience significant effects arising from the Proposed Development.