5 Landscape and Visual Impact Assessment

5.1 Introduction

5.1.1 This chapter of the EIA Report presents a Landscape and Visual Impact Assessment (LVIA) of the Proposed Development and has been prepared by Pegasus Group. The Lead Author is David Gooch, who is a Chartered Member of the Landscape Institute (CMLI). Further details of qualifications and experience are provided in **Chapter 1:Introduction**. The purpose of an LVIA when undertaken in the context of an Environmental Impact Assessment (EIA) is to identify any likely significant landscape and visual effects arising as a result of the Proposed Development. An LVIA must consider both:

- effects on the landscape as a resource in its own right (the landscape effects); and
- effects on specific views and visual amenity more generally (the visual effects).

5.1.2 Therefore, this LVIA considers the potential effects of the Proposed Development upon:

- individual landscape features and elements;
- landscape character;
- specific views; and
- people who view the landscape.

5.1.3 In this chapter, landscape and visual effects are assessed separately although the procedure for assessing each of these is closely linked and follows 'The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition' (GLVIA3)[1].

5.1.4 The main objectives of the landscape assessment can be summarised as follows:

- to identify, evaluate and describe the baseline landscape character of the site and its surroundings and also any notable individual landscape features within the site;
- to determine the nature of the landscape receptor (i.e. the sensitivity of the landscape) through a consideration of its susceptibility to the type of development proposed and any values associated with it;

- to identify and describe any impacts of the Proposed Development in so far as they affect the landscape resource;
- to evaluate the nature of the landscape effects (i.e. the magnitude, duration and reversibility of the effect);
- to identify and describe mitigation measures that have been adopted to avoid, reduce and compensate for landscape effects;
- to evaluate the relative significance of residual landscape effects; and
- to determine which landscapes effects, if any, are significant.

5.1.5 The main objectives of the visual assessment are similar and can be summarised as follows:

- to identify, evaluate and describe the baseline visual context of the site and its surroundings with a focus on both specific views and the more general visual amenity experienced by people who have views of the site;
- to determine the nature of the visual receptor (i.e. the sensitivity of the viewpoint or person whose visual amenity is affected) through a consideration of the susceptibility of the viewpoint/person to the type of development proposed and any values associated with either the viewpoint or visual amenity experienced;
- to identify and describe any impacts of the development in so far as they affect a viewpoint or views experienced;
- to evaluate the nature of the visual effects (i.e. the magnitude, duration and reversibility of the effect);
- to identify and describe mitigation measures that have been adopted to avoid, reduce and compensate for visual effects;
- to evaluate the relative significance of residual visual effects; and
- to determine which visual effects, if any, are significant.

5.1.6 The LVIA also considers any cumulative landscape and visual effects which may arise as a result of the Proposed Development in combination with other wind farm developments.

5.1.7 The main LVIA presented in this chapter is supported by figures and visualisations in the EIAR **Volume 2b** and technical appendices in **Volume 3** comprising:

- Technical Appendix 5.1: Assessment Criteria;
- Technical Appendix 5.2: Visualisation Information;

- Technical Appendix 5.3: Preliminary Assessment of LCTs and Designations;
- Technical Appendix 5.4: Preliminary Assessment of Visual Receptors;
- Technical Appendix 5.5: Viewpoint Assessment;
- Technical Appendix 5.6: Residential Visual Amenity Assessment;
- Technical Appendix 5.7: Assessment of Night-time Lighting;
- Technical Appendix 5.8: Effects on North Arran NSA SLQs;
- Technical Appendix 5.9: Wirelines from Ferry Routes.

5.1.8 The location of the Proposed Development and the study area for the LVIA is illustrated on **Figure 5.1**. For reference, other operational, consented and proposed wind farms within 35 km which are referred to throughout this chapter are illustrated on **Figure 5.27** which shows other wind farms within 20 km.

5.1.9 This chapter is structured as follows:

- Legislation, Policy and Guidance;
- Consultation;
- Methodology;
- Baseline;
- Assessment of Potential Effects;
- Mitigation;
- Assessment of Residual Effects;
- Assessment of Cumulative Effects; and
- Summary.

5.2 Legislation, Policy and Guidance

European Landscape Convention, Adopted 2000

5.2.1 'The European Landscape Convention' (ELC)[2], is the first international convention to focus specifically on the landscape as a resource in its own right. The convention promotes landscape protection, management and planning, as well as European co-operation on landscape issues. Signed by the UK Government in February 2006, the ELC became binding from March 2007. It applies to all landscapes, towns and villages, as well as open countryside; the coast and inland areas; and ordinary or even degraded landscapes, as well as those that are afforded protection.

5.2.2 The UK Government has stated that it considers the UK to be compliant with the ELC's requirements and in effect the principal requirements of the ELC are already enshrined in the existing suite of national policies and guidance on the assessment of landscape and visual effects.

5.2.3 The ELC defines landscape as:

5.2.4 *"An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors."*

5.2.5 It is important to recognise that the ELC does not require the preservation of all landscapes although landscape protection is one of the core themes of the convention. Equally important though is the requirement to manage and plan future landscape change.

5.2.6 The ELC highlights the importance of developing landscape policies dedicated to the protection, management and planning of landscapes. In this regard, NatureScot and Aberdeenshire Council have a suite of landscape character assessment and landscape capacity studies which enables decisions to be made with due regard to landscape character as promoted by the ELC.

Planning Policy

5.2.7 The following currently adopted planning policy documents were reviewed as part of the desk study for the LVIA:

- National Planning Framework 4 (NPF4)[3]
- Argyll and Bute Local Development Plan 2 (LDP2) 2024[4].

5.2.8 A full and detailed consideration of national and local planning policy is contained in **Chapter 4: Approach to EIA/Climate Change, Legislative and Policy Context** of this EIAR and assessed in the accompanying Planning Statement.

5.2.9 It is noted however that there are a number of policies of particular relevance to landscape and visual matters. In particular, these include Policy 11 of NPF4 and specifically section (e) ii, which states that *'Where impacts are localised and/or appropriate design mitigation has been applied, they will generally be considered to be acceptable'*. Whilst there is no definition of 'localised' set out in NPF4, it is considered that localised relates to not just the distance to which significant effects would occur, but also the type of landscape, the scale of the proposed

development and the number of receptors who may be impacted by significant effects. In this context it is considered that the Proposed Development only gives rise to localised landscape and visual effects, and this is demonstrated in the assessments set out in subsequent sections of this Chapter. It is also considered that appropriate design mitigation has been applied, which is discussed in the wider application submission material.

5.3 Consultation

5.3.1 Throughout the scoping exercise, and subsequently during the ongoing EIA process, relevant organisations were contacted with regards to the Proposed Development. **Table 5.1** outlines the consultation responses received in relation to landscape and visual issues.

Table 5.1 - Consultation

Consultee	Details	Response	Where Addressed in the EIA Report
NatureScot Response 28 September 2023	… suggestions for additional LVIA assessment viewpoints to explore include representative views from: ▪ Water-based viewpoints to represent boats / recreational watercraft including the Tayinloan – Gigha ferry, Kennacraig – Islay ferry and the Sound of Gigha.	LVIA Viewpoint 12 (see **Volume 2b)** is representative of views experienced from the Kennacraig to Islay ferry routes. In addition, representative wirelines have been provided to illustrate the nature of views from the Ardminish to Tayinloan, Kennacraig to Islay and the Lochranza ferry routes.	**Technical Appendix 5.9**
	▪ West coast Kintyre; especially within 15 km which includes e.g. the A83 designated tourist route, recreation hubs e.g. beaches and caravan parks, standing stones, Dun Skeig hill fort etc.	Following the submission of the Scoping Report the number of proposed turbines has been reduced from 12 to nine. Consequently, there is much less theoretical visibility predicted from the	**Volume 2b Section 5.6** paragraphs 5.6.171 to 5.6.186

Consultee	Details	Response	Where Addressed in the EIA Report
		A83. LVIA Viewpoint 7 is representative of views from the A83. Effects experienced by travellers on the A83 have been considered in detail within **Section 5.6**. LVIA Viewpoint 4 is representative of views from Point Sands Holiday Park and LVIA Viewpoint is broadly representative of views from Dun Skeig hill fort.	
	▪ Further coastal and elevated viewpoints from North Arran NSA e.g. Machrie Bay and Goatfell.	An additional LVIA viewpoint (Viewpoint 17) has been included from Machrie Bay. Goatfell is over 25 km to the east of the Proposed Development. Furthermore, following the submission of the Scoping Report the number of proposed turbines has been reduced from 12 to nine and there is very limited theoretical visibility from Goatfell. Any effects would be very limited and it is considered that there would be no potential for significant effects. An LVIA viewpoint (Viewpoint 10) has been included from within the NSA from an area with greater	**Volume 2b** **Figure 5.53 and Figure 5.46**

Consultee	Details	Response	Where Addressed in the EIA Report
		visibility due west of Goatfell.	
	▪ Key routes and coastal recreation areas e.g. Kintyre Way Long Distance Route between Rhunahaorine and Tayinloan etc.	LVIA Viewpoints 1, 2, 3 and 4 are located on the Kintyre Way. A detailed assessment of the effects on this route has been included in Section 5.6.	**Volume 2b** **Section 5.6** paragraphs 5.6.156 to 5.6.165
	▪ Nearby settlements.	Following the submission of the Scoping Report the number of proposed turbines has been reduced from 12 to nine. Consequently, there is much less theoretical visibility predicted from nearby settlements. LVIA Viewpoint 3 is representative of worst-case views from Tayinloan.	**Volume 2b** **Figure 5.39**
	We request water-based viewpoints are included as assessment viewpoints as they are important receptors in this landscape where ferries are a key transport route and water-based recreation is an important part of the tourist/ visitor experience. While we appreciate the technical difficulties of producing water-based photomontage, wirelines and baseline photography should be provided as a minimum with the limitations clearly stated on the visualisations.	LVIA Viewpoint 12 (see **Volume 2b)** is representative of views experienced from the Kennacraig to Islay ferry routes. In addition, representative wirelines have been provided to illustrate the nature of views from the Ardminish to Tayinloan, Kennacraig to Islay and the Lochranza ferry routes. A detailed assessment of the effects on ferry routes has been	**Technical Appendix 5.9** **Section 5.6** paragraphs 5.6.187 to 5.6.205

Consultee	Details	Response	Where Addressed in the EIA Report
		included in Section 5.6.	
	Night time ZTV and visualisations should be provided in accordance with our guidance.	The LVIA considers the effect of the aviation lighting during dark sky hours on all visual receptors. In line with current NatureScot guidance, "General pre-application advice for onshore wind farms" (September 2020), Annex 2, the assessment of the effects of night-time lighting on visual amenity has been considered throughout the main LVIA chapter.	**Section 5.6**
	we recommend that an assessment of the impact on the North Arran NSA and its Special Landscape Qualities (SLQ), with supporting assessment visualisations is undertaken in accordance with our draft guidance (which will be provided alongside this response). Effects of lighting on the NSA should also be fully considered. The assessment should take account of effects on the NSA and differences in predicted visibility, with a focus on the effect on the NSA SLQs.	Effects on the North Arran NSA have been assessed in accordance with NatureScot guidance.	**Technical Appendix 5.8**
	We are content that potential effects on the Knapdale and Jura NSAs can be scoped out of the assessment.	Noted	
	We are therefore content for impacts on the North Arran WLA to be scoped out of the LVIA.	Noted	
	We suggest it is premature to consider that the LVIA and cumulative assessment detailed study area is likely to be 20 km, given the location, scale and lighting of the Proposal, the landscape context, and how the landscape is experienced due to	The initial study area for the landscape and visual impact assessment was a 35 km radius from the turbines in	**Section 5.4** and **Section 5.6**

Consultee	Details	Response	Where Addressed in the EIA Report
	the linear nature of the peninsula. Any reduced detailed study area should be justified by the Applicant in the EIA Report.	all directions, as set out in the Scoping Report. The extent of this study area is illustrated in **Figure 5.1**. Initial site work informed by analysis of preliminary ZTVs indicated that any significant landscape and visual effects are likely to occur within a much narrower radius from the site; therefore, the level of assessment work in this LVIA incrementally decreases with distance from the site, with the greatest focus of assessment being within broadly 20 km of the site.	
	Cumulative Assessment We consider it would be pertinent to include the recently scoped Coalashee Wind Farm and possibly others (i.e. Cnoc Buidhe) given the potential for significant cumulative interactions. We defer to Argyll and Bute Council regarding which sites are to be included in the cumulative assessment. However we suggest that should a scoping site (with potential for significant cumulative effects) come forward as an application, we are likely to request that it is included in the assessment; which may cause delay at application stage.	Consideration has been given to relevant scoping schemes in a separate appendix to the Cumulative Assessment in **Section 5.9**.	**Section 5.9**
	Aviation lighting and night-time assessment The assessment of aviation lighting effects will be of critical importance to this Proposal. We note that the Applicant proposes that the assessment of visible aviation lighting will focus solely on visual	Without being able to fully appreciate landscape features and components that contribute to landscape character it is not possible to	**Volume 2b** Viewpoint 2 **Figure 5.38 Sheet G to K**

Consultee	Details	Response	Where Addressed in the EIA Report
	effects, however we disagree with this approach and request that landscape effects are also considered in line with our guidance. The introduction of turbine lighting into an area with low baseline lighting levels/ strongly expressed dark sky character has the potential for significant effects. Please note the lighting baseline has recently changed in Kintyre. A comprehensive night-time assessment will be required along with proposed mitigation of effects from turbine lighting, given the highly visible coastal location and potential effects on key characteristics and qualities. The lighting assessment should be carried out in accordance with Annex 1 of our general pre-application and scoping advice note - https://www.nature.scot/doc/naturescot-pre-application-guidance-onshore-wind-farms.	carry out a meaningful landscape character assessment. This precedent was established in the Reporter's decision for Crystal Rig IV (WIN-140-8). The LVIA considers effects on landscape character during daytime hours only. The LVIA considers the effect of the aviation lighting during dark sky hours on all visual receptors. In line with current NatureScot guidance, "General pre-application advice for onshore wind farms" (September 2020), Annex 2, the assessment of the effects of night-time lighting on visual amenity has been considered throughout the main LVIA chapter. Night-time visuals have been provided from viewpoints 2, 6 and 16. Due to the reduction in the number of turbines and the reduced lighting scheme, no lit turbines would be visible from Viewpoint 3 which was originally proposed as night-time viewpoint.	Viewpoint 6 **Figure 5.42 Sheet D to F** Viewpoint 16 **Figure 5.52 Sheet D to F**

Consultee	Details	Response	Where Addressed in the EIA Report
	The turbine lighting assessment should consider the cumulative effects of lights from any other consented or application stage schemes if relevant. The proposed lighting of any cumulative schemes should also be illustrated on all the night time photomontages. If directional lighting is to be employed as a form of mitigation, then it would also be useful to include a lighting intensity ZTV within the assessment (this ZTV should also show the boundaries for the North Arran NSA).	A turbine lighting intensity ZTV has been provided at **Figure 5.8**.	**Volume 2b Figure 5.8**
	We encourage the Applicant to consider the full range of available turbine lighting mitigation options.	Turbine lighting mitigation options which have been adopted are set out in **Section 5.7**.	**Section 5.7**.
Campbeltown Community Council 4 October 2023	Proposal is much closer to the A83 than other windfarms and hence more visible, increasing the industrialisation of the Kintyre landscape. No mention has been made of the mountain bike trails in the study area.	Following the submission of the Scoping Report the number of proposed turbines has been reduced from 12 to nine. Consequently, there is much less theoretical visibility predicted from nearby the A83. Detailed assessment has been provided of promoted routes within the detailed 20 km LVIA study area	**Section 5.6**
	Additional viewpoint required near Kilocraw	Each of the requests for additional viewpoints was given careful consideration and it was agreed to include an additional daytime viewpoint (VP17) at Machrie Bay on Arran, plus an extra night-time visualisation from the existing daytime VP16 at Pinmill.	**Section 5.6** and **Volume 2b**

Consultee	Details	Response	Where Addressed in the EIA Report
		There is very limited visibility from the Campbeltown Community Council area but the LVIA considers all relevant receptors in the area.	
	In relation to Wild Land Tourists come to Kintyre to enjoy the peace and tranquillity of the area. Ignoring the remnants of wild land that we have left is not only bad for our climate but also for tourism.	The Proposed Development is located outwith a Wild Land Area. With reference to Policy 4 (g) of National Planning Framework 4 that states that *"Buffer zones around wild land will not be applied and effects of development outwith wild land areas will not be a significant consideration."* effects on the WLA are not considered within the assessment. This has been agreed with NatureScot.	**Section 5.5**
	Must include visualisation from St John's Church at Killean, an important asset in the history of Medieval Kintyre and visited by many tourists.	A photomontage has been included as part of the Cultural Heritage Visualisations.	**Volume 2b Figure 6.4**
Argyll and Bute Council	No response to the request for a Scoping Opinion.		
North Ayrshire Council	It is suggested however, that consideration is given to add at least one viewpoint to the list of those to have a night-time visual produced. A night-time visualisation, in particular, for VP10 Beinn Bharrain would allow for further consideration of how the proposal could affect the special qualities of the NSA.	An additional night-time visualisation has been included at LVIA Viewpoint 16 within the North Arran NSA, located on the coast where a greater number of receptors would experience views of	**Volume 2b** Viewpoint 16 **Figure 5.52 Sheets D to F**

Consultee	Details	Response	Where Addressed in the EIA Report
		the proposed turbine lighting during the hours of darkness.	

5.4 Methodology

5.4.1 The primary source of best practice for LVIA in the UK is the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3).

5.4.2 The LVIA presented in this chapter has been undertaken in accordance with the principles established in this document. It must however be acknowledged that GLVIA3 establishes guidelines not a specific methodology. The preface to GLVIA3 recognises that *"This edition concentrates on principles and processes. It does not provide a detailed or formulaic 'recipe' that can be followed in every situation – it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand."*

5.4.3 The methodology adopted for this LVIA follows GLVIA3 guidance to ensure that it is appropriate and fit for purpose.

5.4.4 Consideration has also been given to the following documents:

- Landscape Sensitivity Assessment Guidance (Methodology), (2022), NatureScot;
- Assessing the Cumulative Impact of Onshore Wind Energy Developments (March 2021) NatureScot;
- Siting and Design of Wind farms in the Landscape, Version 3 (February 2017) SNH;
- Visual Representation of Wind Farms – Version 2.2 (February 2017), SNH;
- General pre-application and scoping advice for onshore wind farms. Guidance. (September 2020) NatureScot;
- Landscape Institute (LI) Technical Guidance Note 2/19. Residential Visual Amenity Assessment (RVAA) (March 2019) Landscape Institute;
- LI Advice Note 02/17 Visual representation of development proposals (March 2017) Landscape Institute; and

- LI Technical Guidance Note 02/21 Assessing landscape value outside of national designations.

Scope of Assessment

5.4.5 The LVIA assesses both the long-term effects (assessed as though they were permanent) relating to the operational lifetime of the Proposed Development and the short-term temporary effects associated with the construction of the Proposed Development.

5.4.6 Where appropriate, the LVIA also considers any residual effects once the proposed turbines have been decommissioned and removed (50 years from the commencement of operation).

5.4.7 The LVIA considers both direct and indirect landscape and visual effects. It not only assesses the impacts associated with the turbines but also any related impacts resulting from the associated infrastructure e.g. construction compound, borrow pits, underground cabling, site tracks, substation and access roads.

5.4.8 Consideration has been given to the movement of the turbine blades, along with seasonal variations when assessing the visibility of the Proposed Development.

5.4.9 The LVIA also considers any cumulative effects arising in combination with other wind farm schemes in the study area, as defined in **Section 5.9** below. Best practice guidelines identify two principal types of cumulative visual impact:

- combined visibility – where the observer is able to see two or more developments from one viewpoint; and
- sequential visibility – where two or more sites are not visible at one location but would be seen as the observer moves along a linear route, for example, a road or public right of way.

5.4.10 The guidelines state that 'combined visibility' may either be 'in combination' (where two or more sites are visible from a fixed viewpoint in the same arc of view) or 'in succession' (where two or more sites are visible from a fixed viewpoint, but the observer is required to turn to see the different sites). Both types are discussed in this LVIA. The published GLVIA3 also indicates a difference in emphasis between sequential effects that are frequent and those which are occasional.

5.4.11 The primary purpose of the cumulative impact assessment is to consider the additional effects that might arise as a result of the Proposed Development if the other consented and in planning (awaiting determination) schemes were also operational. In addition, the cumulative assessment also includes a further consideration of the overall totality of the effect, when the Proposed Development is considered alongside the other operational or proposed schemes across the study area.

5.4.12 In relation to both the effects of the Proposed Development alone and the cumulative effects with other wind farm schemes in the study area, both beneficial (positive) and adverse (negative) effects are considered. Wind farms give rise to a wide spectrum of opinions, ranging from strongly negative to strongly positive, with a wide range of opinions lying somewhere between these two positions. Some people view turbines as incongruous or industrial structures whilst others view them as aesthetically pleasing, elegant structures and a positive response to climate change. This spectrum of opinion has come to be referred to in relation to wind farms as the concept of valency. For the avoidance of doubt, in considering the effects of the Proposed Development, a precautionary approach to the assessment has been adopted and it is assumed that, unless specifically stated otherwise, the effects of the Proposed Development will be adverse in nature even though it is acknowledged that, for some people, the impacts could be considered to be beneficial.

Effects Scoped Out of the Assessment

5.4.13 Based on the desk study, field work, the professional judgement of the LVIA team and experience of delivering other onshore wind energy projects, the following elements have been scoped out of detailed assessment:

- Effects on receptors located outside of the zone of theoretical visibility (ZTV);
- Effects of decommissioning the Proposed Development at the end of its operational life as effects would be very similar in nature to those experienced during the construction, except in reverse; and
- Effects on landscape character during dark sky hours when aviation lighting is operating. Without being able to fully appreciate landscape

features and components that contribute to landscape character it is not possible to carry out a meaningful landscape character assessment. This follows the approach of the Reporter's decision for Crystal Rig IV (WIN-140-8)[5].

Study Area

5.4.14 The initial study area for the landscape and visual impact assessment is 35 km radius from the turbines in all directions, as set out in the Scoping Report. The extent of this study area is illustrated in **Figure 5.1**. Initial site work informed by analysis of preliminary ZTVs indicated that any significant landscape and visual effects are likely to occur within a much narrower radius from the site; therefore, the level of assessment work in this LVIA incrementally decreases with distance from the site, with the greatest focus of assessment being within broadly 20 km of the site. The intention is that the detail of the LVIA remains proportional to the likely significance of effects, as advocated in GLVIA3.

5.4.15 In terms of cumulative effects, the intention has again been that assessment work is proportional to the likelihood of significant effects arising, noting that there is less likelihood that wind farms currently in planning will all be consented . The approach adopted in the cumulative LVIA has been to focus on other wind farms which are either operational, under construction, consented or the subject of a full planning application within 20 km radius from the turbines in all directions as agreed in the Scoping Opinion and which have the potential to give rise to significant cumulative effects when considered in combination with the Proposed Development. The approach has been to focus the assessment on those wind farms which have the potential to given rise to significant cumulative effects. Further details of this approach are set out in the cumulative impact assessment at **Section 5.9**.

Landscape Assessment Methodology

5.4.16 A baseline landscape assessment was carried out to determine the current features and character of the landscape within and surrounding the site.

5.4.17 The baseline landscape assessment involved firstly a review of desk material including:

- Ordnance Survey maps at 1:250,000; 1:50,000; 1:25,000 and 1:10,000 scales;
- Aerial photographs of the site and surrounding area;
- Topography;
- Current and historical land use;
- Geology and soil maps;
- Historic Parks and Designated Landscapes;
- Relevant planning policy;
- Relevant landscape sensitivity/capacity studies;
- Relevant landscape character assessments; and
- Relevant Historic Landscape Character Assessments.

5.4.18 Field visits have been conducted in a variety of weather conditions and at different times of the year during the pre-application stage.

5.4.19 The baseline assessment identified the existing landscape features on the site, and in the immediate vicinity, and how these elements combine to give the area a sense of landscape character. Plans and construction details of the Proposed Development were used to determine the impacts of the scheme on landscape features and character.

5.4.20 The LVIA firstly assesses how the Proposed Development would impact directly on any existing landscape features or elements (e.g. removal of trees etc.).

5.4.21 The LVIA then considers impacts on landscape character with reference to landscape character areas/types identified in published landscape character documents.

Visual Assessment Methodology

5.4.22 Potential visual receptors of the Proposed Development were identified by interpretation of digitally generated ZTVs (see **Technical Appendix 5.2** for an explanation of how the ZTVs were produced).

5.4.23 A selection of viewpoints was identified and agreed with statutory consultees to represent a range of views and viewer types as discussed in Visual Representation of Wind farms – Version 2.2 (NatureScot) and in Paragraphs 6.16-6.20 of GLVIA3. The assessment viewpoints are listed in **Table 5.2**.

5.4.24 The viewpoints cover a variety of different character areas, are in different directions from the site and are at varying elevations. Some of the viewpoints are intended to be representative of the visual experience in a general location whereas other viewpoints illustrate the view from a specific or important vantage point. The viewpoints are located at a range of distances from the Proposed Development to illustrate the varying magnitude of visual impacts.

5.4.25 Visualisations were produced for each of the viewpoints; these are presented in **Volume 2b** of this EIAR. An explanation of how they were produced and information to be read in conjunction with the visualisations is provided in **Technical Appendix 5.2**.

5.4.26 Each of the representative viewpoints was visited to gain an understanding of the sensitivity of the viewpoint receptors and to make professional judgements on the likely visual effects arising from the Proposed Development. Furthermore, the entire extent of the study area was visited to appreciate visibility of the Proposed Development as receptors move throughout the landscape.

5.4.27 The viewpoints were used as the starting point for considering the effects on visual receptors within the entire study area. The visual assessment does not rely solely on the viewpoint assessments to determine the significance of effects on different visual receptor groups throughout the study area. It should be recognised that the viewpoints illustrated in the LVIA simply represent a series of snapshots from a small selection of the locations within the study area from where the Proposed Development will be visible. It should also be noted that the Proposed Development is always centred within the viewpoint visualisation. This is follows NatureScot visualisation guidance and does not imply that the Proposed Development will be the focus of the view from any given viewpoint. Following the viewpoint assessment, the LVIA considers the effect on visual amenity throughout the study area with reference to different visual receptor groups at varying distances from the site.

Assessment Criteria

5.4.28 The purpose of an LVIA when produced in the context of an EIA is to identify any significant landscape and visual effects within the study area

to assist the determining authority in deciding the acceptability of the scheme under consideration.

5.4.29 In accordance with the GLVIA3, the level (relative significance) of an effect is ascertained by considering in tandem the nature (sensitivity) of the baseline landscape or visual receptor and the nature (magnitude) of change as a result of the Proposed Development. These two judgements are described as **very high**, **high**, **medium**, **low** or **very low**.

5.4.30 The relative significance of landscape or visual effects is described as **major**, **major/moderate**, **moderate**, **moderate/minor**, **minor** or **minor/no effect**. **No effect** may also be recorded where the effect is so negligible it is not even noteworthy. Professional judgement is then employed to determine whether the effect is significant or not. Those effects described as **major**, **major/moderate** and in some cases, **moderate** may be regarded as significant.

5.4.31 The detailed assessment criteria used to determine landscape and visual sensitivity, magnitude of change and significance of effect are set out in **Technical Appendix 5.1**.

Assessment Limitations

5.4.32 The assessment of effects within this LVIA has been derived through the use of publicly available information only. Within such a large study area it is unfeasible to visit every single location from which the Proposed Development might be visible as illustrated on the ZTVs. The authors of the LVIA have, however, spent a considerable length of time 'in the field' and visited all important viewpoints and locations within the study area.

5.4.33 Limitations to the use of ZTVs and in relation to photography, wireframes and photomontages are set out in **Technical Appendix 5.2**.

5.5 Baseline

5.5.1 For the avoidance of doubt all distances are approximate and have been measured from the asset to the nearest proposed turbine unless otherwise stated.

Current Baseline

Site Location

5.5.2 The site is located within the administrative boundaries of Argyll and Bute Council (ABC) approximately 2.5 km east of Tayinloan, on Killean Estate in Kintyre. The site occupies an upland plateau formed by low rounded hills that is currently used as commercial forestry plantation and open rough grazing for livestock. The closest settlements are Killean and Tayinloan to the west. Main transport routes include the A83 on the western coast and the B842 on the eastern coast, approximately 2.2 km west and 7.5 km east of the Proposed Development respectively.

5.5.3 The location of the Proposed Development site is illustrated at **Figure 1.1**, and the proposed turbine layout at **Figure 1.3**.

Landscape Designations

5.5.4 A review of all landscape designations within the initial 35 km LVIA study area has been undertaken. Landscape designations within 35 km are illustrated on **Figure 5.9**.

International/National Landscape Designations

5.5.5 There are no national landscape designations covering the site. The North Arran National Scenic Area (NSA) is located within 12 km east of the Proposed Development and covers much of the mountainous northern part of the Isle of Arran, as shown on **Figures 5.9** and **5.10** along with the other designated sites.

National Scenic Areas

5.5.6 The North Arran NSA is located approximately 11.7 km east of the Proposed Development. The Special Qualities of the North Arran NSA are defined as:

- *"A mountain presence that dominates the Firth of Clyde*
- *The contrast between the wild highland interior and the populated coastal strip*
- *The historical landscape in miniature*
- *A dramatic, compact mountain area*
- *A distinctive coastline with a rich variety of forms*
- *One of the most important geological areas in Britain*
- *An exceptional area for outdoor recreation*
- *The experience of highland and island wildlife at close hand"*

5.5.7 Effects on the North Arran NSA are considered within the preliminary assessment of Landscape Character Types (LCTs) and Designated Sites in **Technical Appendix 5.3** and subsequently in **Technical Appendix 5.8.**

5.5.8 Notable effects on other NSAs within the study area including the Knapdale NSA over 20 km north of the Proposed Development and the Jura NSA over 25 km north-west are considered unlikely given the intervening distance, as discussed further in the preliminary assessment of LCTs and Designated Sites in **Technical Appendix 5.3**.

Local Landscape Designations

Local Landscape Areas

5.5.9 In total 16 Local Landscape Areas (LLAs) have been identified in Argyll and Bute as set out in Policy 71 of the LDP2. Six of the LLAs overlap with the initial 35 km LVIA study area as illustrated on **Figure 5.9**, and three overlap with the 20 km detailed LVIA study area illustrated on **Figure 5.10**.

5.5.10 The West Kintyre (Coast) LLA is located approximately 1.7 km to the west of the Proposed Development and is represented by **Viewpoints 3** and **4**. The East Kintyre (Coast) LLA is located approximately 9.1 km to the south east of the Proposed Development. The Knapdale / Melfort LLA is located approximately 12.4 km to the north of the Proposed Development and is represented by **Viewpoint 11**.

5.5.11 The three LLAs which overlap with the 20 km detailed LVIA study area effects on these designations are considered further within the within the preliminary assessment of LCTs and Designated Sites in **Technical Appendix 5.3** to determine which have the potential to experience significant effects and require detailed assessment.

5.5.12 Within the North Ayrshire Council area the North Arran Special Landscape Area (Local Landscape Area) overlaps both the initial 35 km LVIA study area, located approximately 13.4 km to the east of the Proposed Development and is represented by **Viewpoints 10** and **16**. As it also overlaps the 20 km detailed study area it is also considered further within the preliminary assessment in **Technical Appendix 5.3**.

5.5.13 Note, the term 'Local Landscape Area' follows Scottish Government policy and is the name for local landscape designations in Scotland. Some local

authority policy and guidance documents may still refer to previous names such as 'Special Landscape Area'.

Wild Land

5.5.14 The Proposed Development is not located within a Wild Land Area (WLA). The nearest WLA is the North Arran WLA (WLA 03) located approximately 13 km to the east of the Proposed Development.

5.5.15 Although it is acknowledged that there is theoretical visibility from part of the WLA any effects would be very minimal given the distance from the Proposed Development. Furthermore, with reference to Policy 4 (g) of National Planning Framework 4[3] that states that *"Buffer zones around wild land will not be applied and effects of development outwith wild land areas will not be a significant consideration."* effects on the WLA are not considered further within the assessment.

Gardens and Designed Landscapes

5.5.16 Three Gardens and Designed Landscapes (GDL) are located within the initial 35 km LVIA study area. Of these, one is situated within the detailed 20 km LVIA study area. This comprises:

- Achamore House GDL located approximately 7.7 km to the west on Gigha.

5.5.17 Where relevant, potential effects on this asset are considered further within the Cultural Heritage Assessment in **Chapter 6** of this EIA Report.

Published Landscape Character Descriptions

5.5.18 A review was undertaken of the following published sources of information regarding regional and local landscape character:

- SNH (now NatureScot) National Landscape Character Assessment (2019);
- Argyll and Bute Wind Energy Capacity Study (2017) (ABLWECS)[6]; and
- North Ayrshire Landscape Wind Energy Capacity Study (2018)(NALWECS)[8].

5.5.19 It should be noted that both the ABLWECS and the NALWECS should be read with caution. NatureScot advise that such studies should not be referred to as 'capacity studies' as no local or regional targets are available on which to determine the 'capacity' for development. They

advise that these studies *"should reflect their purpose, which is to provide a strategic assessment of relative landscape and visual sensitivity to certain defined forms of development"*.

5.5.20 These documents are outdated to some extent by wind farm developments which have been either consented or constructed in the intervening period, changes to the onshore wind energy planning policy context and the development of wind turbine technology.

5.5.21 These studies are strategic in nature and cannot displace landscape and visual impact assessment of specific development proposals.

5.5.22 At this point, for clarity, it is necessary to distinguish between two terms that are frequently used in published guidance and this chapter. They originate from the 'Guidelines for Landscape Character Assessment' (Countryside Agency and NatureScot, 2002):-

- **Landscape Character Types (LCTs)** are defined as tracts of landscape, which have a generic unity of character due to the particular combinations of landform, land cover, pattern and elements. The same landscape character type can occur at several different locations throughout a study area; and
- **Landscape Character Areas (LCAs)** are defined as discrete geographical areas of a particular landscape character type and can only occur at a single location.

Landscape Character Types Covering the Site

5.5.23 With reference to **Figures 5.12** and **5.13**, the proposed turbines and the majority of the wind farm access tracks and associated infrastructure are located within LCT 6 Upland Forest Moor Mosaic as defined in the ABLWECS. The LCT covers the majority of the central section of the Kintyre Peninsula. The ABLWECS summarises the sensitivity of the area as follows:

"a gently undulating plateau-like landform with smooth even slopes. This landscape has a simple land cover of extensive coniferous forestry and moorland. It is sparsely settled and already accommodates operational and consented wind farm developments. Some of these characteristics reduce sensitivity to large wind turbines although there are some more sensitive features. These include the more complex

smaller scale hills and occasional narrow settled glens lying on the outer fringes of this upland plateau. More pronounced and rugged higher hills which lie within the core area of this landscape and the remote and little modified coast between Skipness and Tarbert would also be highly sensitive to wind energy development. A major constraint to accommodating additional wind energy development is potential cumulative effects with other wind farms.

This is a very sparsely settled area which is difficult to access in places although the Kintyre Way long-distance footpath attracts walkers. Visibility of the core area of these uplands is restricted from roads and settlement within adjacent low-lying coastal areas although there are more distant views from Arran, Gigha and across West Loch Tarbert, outer Loch Fyne and the Kilbrannan Sound."

5.5.24 Volume Two of ABLWECS goes on to identify the area as having high-medium sensitivity to very large turbines over 130 m tall.

5.5.25 A short section of the access track is located within LCT 20 Rocky Mosaic. The ABLWECS summarises the sensitivity of this area as follows:

"This character type usually forms an irregular narrow coastal or loch edge. The rolling landform of the landscape provides strong containment and the presence of small woodlands, fields and settlement reinforces its predominantly small scale. These loch shores and coastal fringes make an important contribution to the wider scenic context of Argyll, forming an intricately patterned band between the foreground of sea or loch and backed by simple and more expansive upland landscapes. Their small scale, complex landform and pattern and role in the wider landscape context increases sensitivity. The Rocky Mosaic character type is relatively well-settled, often accommodates major transport routes and is a focus for recreation. While visibility along lochs and coast can be restricted by landform and woodland, views tend to focus on opposite loch shores and outwards across wider seascapes in the Kintyre peninsula and are often highly scenic."

5.5.26 The ABLWECS goes on to identify the area as having high sensitivity to large (80 m to 130 m tall) and medium-scale (50 m to 80 m tall) wind energy development.

5.5.27 The proposed turning head at the western end of the access track is located within LCT 19 Coastal Plain. The ABLWECS summarises the sensitivity of this area as follows:

"The very small extent of this narrow coastal plain, the setting of settlements and its close proximity to the richly diverse small-scale landscape of the Rocky Mosaic (20) are key constraints for all the development typologies considered in the sensitivity assessment. This landscape is very open and widely visible from the A83, settlement and the coast where highly scenic views over the sea to low-lying Gigha, focusing on the distinctive profiles of Jura, are a key feature."

5.5.28 The ABLWECS goes on to identify the area as having high sensitivity to large (80 m to 130 m) and medium-scale (50 m to 80 m tall) wind energy development.

5.5.29 Since the ABLWECS was published in 2017, NatureScot has prepared revised guidance[7] on sensitivity assessment and advises that updating of existing studies may be required as development patterns and technology change and that reference to 'capacity' should be removed. The guidance also notes that *"a finding of 'high sensitivity' does not necessarily mean that there is no ability to accommodate development and 'low' sensitivity does not necessarily mean there is definitely potential for development"*.

5.5.30 It is also important to acknowledge that landscape and visual effects arising from a proposed development are one factor weighed in the overall planning balance, set against the current renewable energy and planning policy context applicable at the time.

Other Landscape Character Types to be assessed

5.5.31 In order to consider the indirect effects of the Proposed Development on landscape character, landscape character types within 35 km of the Proposed Development have been illustrated on **Figure 5.12**, and those located within the detailed 20 km LVIA study area are illustrated on **Figure 5.13**. The LCTs within 20 km have also been overlaid with the ZTV at **Figure 5.14**.

5.5.32 An initial filtering exercise has been undertaken to determine which LCTs would have the potential for significant effects to arise and would therefore require detailed consideration in this chapter. The intention has

been to ensure that the level of attention given to each character type is proportionate to the likelihood of significant effects arising. The discussion below summarises the process followed in deciding which character types have the potential to experience significant effects and hence to scope out various character types from further consideration.

5.5.33 With reference to **Figure 5.12** and the blade tip ZTV at **Figure 5.3**, all LCTs located between 20 km and 35 km have been scoped out of further assessment, on account of the distance from the Proposed Development, the influence of other closer wind farm development and the relatively limited theoretical visibility. It is acknowledged that there may be very limited potential for effects on the character of available views from these LCTs but there would be no potential for significant effects to arise.

5.5.34 All LCTs present within the detailed 20 km LVIA study area have been subject to an initial filtering exercise. The findings of this exercise are presented at **Table 5.3.1** of **Technical Appendix 5.3**.

5.5.35 The LCTs assessed in detail in this chapter are:

- LCT 6 Upland Forest Moor Mosaic – Proposed Development is primarily located within this LCT;
- LCT 20 Rocky Mosaic – Access track to Proposed Development is partly located within this LCT;
- LCT 19 Coastal Plain – Turning head at western end of proposed access track is located within this LCT;
- LCT 22 Coastal Parallel Ridges – Located approximately 7 km to the west;
- LCT 1b Arran Raised Beach Coast – Located approximately 13.4 km to the east on the Isle of Arran and
- LCT 21a Arran Rugged Granitic Uplands – Located approximately 14 km to the east on the Isle of Arran.

Local Landscape Description and Character Appraisal

5.5.36 A plan illustrating the landscape features/elements within the site and its immediate context (5 km radius of the turbines) is provided in **Figure 5.16**. The following discussion provides an overview of the physical and perceptual characteristics of the site and immediately surrounding landscape without particular reference to published landscape character types.

Topography

5.5.37 Topography within 35 km of the Proposed Development is illustrated at **Figure 5.15**.

5.5.38 The topography of the site is characterised as a broad area of undulating upland lying within the interior of the Kintyre peninsula.

5.5.39 The elevation of the site ranges from approximately 15 m Above Ordnance Datum (AOD) in the western part of the site where the proposed access track meets the A83 to approximately 336 m AOD near the centre of the site and on the south-western site boundary near to the hilltop of Cnoc Odhar Auchaluskin. In the northern part of the site is the distinct hilltop of Cnoc nan Craobh (322 m AOD). A range of hills runs through the eastern part of the site, forming a ridge to the west of Glenn Drochairde.

5.5.40 The surrounding topography to the north, south and east of the site is generally undulating, with broad gentle slopes and rounded summits. Small interlocking knolly hills are a particular feature to the west of the site, close to the transition with the low-lying coastal plain to the west of the A83.

Watercourses and Drainage

5.5.41 Several small burns cross through the site. Killean Burn emerges close to the centre of the site and flows in a south-westerly direction through an area of forest. It then continues parallel with the access track to its northern side, flowing in a westerly direction towards the coast.

5.5.42 In the eastern part of the site, Allt Chaltuinn flows within a wide u-shaped valley in a northerly direction towards Loch Ulagadale. To the south of the site Allt Achadh a' Choirce flows in u-shaped valley in a south-westerly direction.

5.5.43 There are numerous lochs and lochans within the site and in the wider surrounding landscape. Loch Dirigadale is located within the northern part of the site. Loch a' Ghlinn Bhig, Loch Luireach and Loch Fionn-Ghleann are located within the eastern part of the site. Loch na Naich is located within the southern part of the site. All of these lochs are fed by a broad network of burns.

Vegetation

5.5.44 The site of the Proposed Development comprises areas of open moorland consisting of dry heath, acid grassland, bracken and conifer trees. The northern part of the site is predominantly covered by the conifer plantation, which extends southwards though the centre of the site.

5.5.45 Within the western part of the site, the proposed access track passes adjacent to Killean Burn through a partly wooded landscape including a belt of mixed woodland adjacent to the A83. A small area of farmland is present adjacent to Kilmory near to the western end of the track.

5.5.46 Within the wider landscape to the west of the site, farmed fields are dotted along the coastal plain. A mosaic of managed grassland fields and mixed woodland is present to the north and south of the access track. Larger areas of coniferous forestry are present on the elevated ground to the east of the site.

Built Infrastructure

5.5.47 The majority of the site does not feature any built infrastructure, except for the forest access tracks that cross the upland plateau and a sheep wash near to the centre of the site. The A83 trunk road passes through the site boundary at its western end.

5.5.48 Within the wider landscape, there are numerous individual farmsteads including Kilmory adjacent to site boundary on the northern side of the access track. There is a small group of properties adjacent to the site boundary on the southern side of the access track at Killean. Settlement tends to be situated along the A83 within the lower-lying coastal landscape to the west of the site.

5.5.49 There are few major roads within the detailed study area due to the site location on the Kintyre peninsula, with its relatively remote interior. Within the detailed 20 km LVIA study area, the A83 is the main transport route passing from north to south along the western coast of the Kintyre peninsula while the B842 is the main route passing along its eastern coast, passing approximately 7 km to the east of the Proposed Development.

5.5.50 The B8001 links with the A83 at Kennacraig and continues south east to Claonaig where it meets the B842. The B842 then continues south of the 20 km detailed LVIA study area, where it crosses the A83 at Campbeltown before finishing at Southend.

5.5.51 To the south east of the Proposed Development, the B879 connects with the B842 at Bridgend and heads east to Carradale.

5.5.52 To the north of the Proposed Development, the B8024 passes around the southern edge of Knapdale, approximately 16 km to the north of the site.

5.5.53 There are several minor roads within the 20 km detailed study area. A minor road heads northwards from the A83 near Campbeltown to the shore of Lussa Loch within the centre of the Kintyre peninsula. Minor roads also provide access to small settlements such as the minor road passing through Barr Glen, leading to Arnicle, approximately 5.5 km to the south. There are several minor roads on the Isle of Gigha approximately 7.7 km to the west, and on the west coast of the Isle of Arran, approximately 13.5 km to the east.

5.5.54 Within the detailed 20 km LVIA study area there are several operational wind farms within the immediate surrounding landscape. The operational Deucheran Hill Wind Farm is located approximately 2.5 km to the east of the site, Blary Hill is located approximately 6.2 km to the south, Auchadaduie is located approximately 7.7 km to the south south west and Beinn an Tuirc I, II and III is located approximately 6.6 km to the south east.

5.5.55 Cour Wind Farm is located approximately 6.2 km to the east north east, Gigha Wind Farm is located approximately 8.3 km to the west. Tangy I and II are located approximately 15 km to the south and Freasdail is situated approximately 15.9 km to the north east.

5.5.56 In addition, there are consented schemes within the detailed study area at Tangy IV approximately 14.3 km to the south, High Constellation, approximately 7.1 km to the north east, Eascairt, approximately 13.8 km to the north east and Airgh, approximately 19 km to the north. Other wind farms within 20 km are illustrated in **Figure 5.27**.

Sensory and Perceptual Characteristics

5.5.57 The site comprises a large-scale mosaic of coniferous forestry and open moorland set upon a broad undulating area of upland plateau. A sense of seclusion can be experienced within this landscape due to the lack of intervisibility with major roads or densely populated areas. However, the

perception of naturalness is reduced by the extensive commercial forestry and existing operational wind farms.

5.5.58 Views from the settled coastal transport routes into the interior of the Kintyre peninsula are generally restricted by landform and forestry. More open views are available from the surrounding seascape and coastal areas of neighbouring islands of Gigha and Arran.

Forces for Future Change in the Landscape

5.5.59 The main foreseeable forces for change in the landscape surrounding the site relate to changes to the forest plantations with areas of felling and replanting in line with forest management plans. Further changes may also occur due to changes in agricultural land use and changes to traditional forms of moorland management, which may over time change such as by introducing longer rotations between burning, or changes to vegetation resulting from re-wetting or rewilding to encourage greater habitat diversity.

5.5.60 Within the wider landscape, there are several commercial wind energy developments and several consented schemes which, if built, would also influence the existing nature of the wider landscape surrounding the Proposed Development as set out in the Cumulative Assessment at **Section 5.9**.

5.5.61 In addition to the consented or proposed developments within the vicinity of the site, it is widely recognised that climate change will have an impact on the future character of the Scottish landscape through changes to weather conditions that will in turn result in changes to vegetation that will affect the intrinsic character of the landscape.

Visual Receptors

5.5.62 With reference to the blade tip ZTV at **Figure 5.3** and **Figure 5.4**, theoretical visibility is largely restricted to the area of sea between Kintyre and Islay, including the Sound of Gigha, with patchy coverage across upland areas of Kintyre. East facing slopes of Gigha, West facing slopes of Arran and South facing slopes of Knapdale also have patchy theoretical visibility.

5.5.63 It was determined that there was no potential for the Proposed Development to result in any significant visual effects at distances over 20

km from the site as with increased distance from the site, the likelihood of significant visual effects occurring incrementally decreases. Therefore, whilst the primary study area for this LVIA extends out to 35 km and the various figures which accompany this report illustrate an initial 35 km study area, the assessment has focused on visual receptors within the detailed 20 km LVIA study area.

5.5.64 Interpretation of the ZTVs (**Figures 5.3** through to **5.6** and the ZTV quadrants at **Figures 5.19** through to **5.26**) assisted identifying potentially sensitive visual receptors of the Proposed Development. Principal visual receptors within the surrounding landscape are illustrated at **Figures 5.17** and **5.18** and are identified below.

Residential Receptors and Settlements

5.5.65 Residential visual receptors have been identified in bands of distance from the nearest turbine with a greater level of detail provided in relation to those properties nearest to the Proposed Development, although it is recognised that there may be views from individual properties and clusters of properties throughout the wider study area.

5.5.66 With reference to the blade tip ZTVs at **Figures 5.3** and **5.4** and **Figures 5.19** through to **5.22** only those properties or settlements with theoretical visibility of the Proposed Development have been identified below. Those settlements with no theoretical visibility have not been considered further within this chapter. Residential receptors are also shown on **Figures 5.17** and **5.18**.

Residential Properties within 2 km

5.5.67 There are 12 residential properties within 2 km of the Proposed Development as follows:

- Braids – located within the site and approximately 0.7 km from the nearest turbine;
- Kennels – located approximately 1.8 km to the west north west;
- 4 Largie – located approximately 1.8 km to the west north west;
- The Steading – located approximately 1.8 km to the west north west;
- The Dairy – located approximately 1.8 km to the west north west;
- 1 Largie – located approximately 1.9 km to the west north west;
- 2 Largie – located approximately 1.9 km to the west north west;

- Colt House – located approximately 1.9 km to the west;
- Culfuar – located approximately 1.9 km to the west north west;
- Garden Cottage – located approximately 1.9 km to the west north west;
- Kilmory – located approximately 2 km to the west adjacent to the site boundary; and
- Tavantaggart – located approximately 2 km to the north west.

5.5.68 The location of these properties is illustrated on **Figure 5.6.1** in **Technical Appendix 5.6**. Of these, Braids, located within the site is in a ruinous state and so is not considered further within the assessment.

5.5.69 Garden Cottage, Colt House, Kennels, 1 Largie, 2 Largie, 4 Largie, The Steading and Dairy Cottage would experience no theoretical visibility of the Proposed Development and as such are not considered further within the assessment.

5.5.70 Tavantaggart and Culfuar would experience very limited theoretical visibility of up to three blade tips only. Some very limited effects may be experienced but they would not be considered significant and as such these properties are not considered further within the assessment.

5.5.71 The remaining property, Kilmory is located to the north edge of the site access track and would experience theoretical visibility of up to all nine turbines. As such effects on this property are considered further within the assessment.

Settlements within 5 km

5.5.72 Within 5 km of the Proposed Development the nearest settlements, as identified in the Argyll and Bute Local Development Plan are:

- Killean – located approximately 2.6 km to the west south-west; and
- Tayinloan - located approximately 2.6 km to the west.

Settlements within 5-10 km

5.5.73 Within 5 to 10 km of the Proposed Development the nearest settlements, as identified in the Argyll and Bute Local Development Plan are:

- Ardminish (Gigha) – located approximately 7.6 km to the west;
- Bridgend/Waterfoot – located approximately 8.5 km to the south east;
- Carradale – located approximately 9.8 km to the south east;

- Glenbarr – located approximately 8.6 km to the south-west; and
- Muasdale – located approximately 5.1 km to the south-west.

Settlements within 10 to 20 km

5.5.74 Settlements within 10 to 20 km from the Proposed Development experiencing theoretical visibility of the Proposed Development are:

- Bellochantuy – located approximately 11.5 km to the west;
- Catacol – located approximately 18.5 km to the north;
- Peninver – located approximately 19 km to the south;
- Pirnmill – located approximately 14 km to the east on the Isle of Arran;
- Saddell – located approximately 12.9 km to the south east.

5.5.75 An initial filtering exercise has been undertaken of settlements within the detailed 20 km LVIA study area to determine which have the potential to experience significant effects and would therefore require detailed consideration in this chapter. The intention has been to ensure that the level of attention given is proportionate to the likelihood of significant effects arising. The findings of the initial filtering exercise are presented at **Table 5.4.1** of **Technical Appendix 5.4**.

5.5.76 This filtering exercise identified that following settlements have the potential to experience significant effects:

- Killean – located approximately 2.6 km to the west south-west;
- Tayinloan - located approximately 2.6 km to the west;
- Ardminish (Gigha) – located approximately 7.6 km to the west; and
- Pirnmill – located approximately 14 km to the east on the Isle of Arran.

5.5.77 The effects on these settlements are considered further in **Section 5.6** and their location illustrated on **Figure 5.17**.

Core Paths

5.5.78 There are numerous core paths located within the detailed 20 km study area. These are illustrated at **Figure 5.18**.

5.5.79 An initial filtering exercise has been undertaken to determine which have the potential for significant effects to arise and would therefore require detailed consideration in this chapter. The intention has been to ensure that the level of attention given to each core path is proportionate to the

likelihood of significant effects arising. The findings of the initial sieving exercise are presented at **Table 5.4.3** of **Technical Appendix 5.4**.

5.5.80 This filtering exercise identified that users of the following routes have the potential to be significantly affected by the Proposed Development:

- Core Path C094 – Tayinloan-Carradale East-West link;
- Core Path C293 – Clachaig Water circular, Muasdale;
- Core Path C095 – Gigha Ferry pier – Ardmore Gds – South Pier;
- Core Path C096 – Gigha Jetty – Creag Bhan – Port Mor;
- Core Path C534 – St Catherines Church and Poll More Bay, Gigha;
- Core Path C304 – Glenbarr School route; and
- Core Path C539 – Creag Bhan view point, Gigha.

Scotland's Great Trails

5.5.81 Two of Scotland's Great Trails pass within the detailed 20 km study area. These are Arran Coastal Way and Kintyre Way, illustrated at **Figure 5.18**. Both of these routes either pass within close proximity or experience extensive theoretical visibility over sections of the route and as such effects on receptors using these routes are considered further in **Section 5.6**.

Cycle Routes

5.5.82 One cycle route passes through the detailed 20 km study area. This Sustrans route, which is formerly part of National Cycle Network (NCN) 78 The Caledonia Way is illustrated at **Figure 5.18** following the B8024.

5.5.83 This illustrates that there is very limited theoretical visibility from the majority of the route as it passes along the eastern coastline of the peninsula. The main area of theoretical visibility occurs between Kilberry and Torinturk approximately 16 km to the north of the Proposed Development. Given the orientation of the route and the oblique nature of views towards the Proposed Development that cyclists would experience, together within the distance, it is considered that although there is potential for some limited effects, they would not be considered significant.

5.5.84 As such effects on this cycle route are not considered further within the assessment.

Roads, Railways and Ferry Routes

5.5.85 Due to the location of the Proposed Development site on the Kintyre Peninsula, there are relatively few roads located within the detailed 20 km study area. These are illustrated at **Figure 5.18**.

5.5.86 The following roads pass through the 20 km detailed study area:

- A83 – located to the west of the Proposed Development;
- B842 – located approximately 7 km to the east;
- B879 – located approximately 8.9 km to the south east;
- B8001 – located approximately 18.5 km to the north east; and
- B8024 – located approximately 15.8 km to the north west.

5.5.87 An initial filtering exercise has been undertaken to determine which have the potential to experience significant effects and would therefore require detailed consideration in this chapter. The intention has been to ensure that the level of attention given to each route is proportionate to the likelihood of significant effects arising. The findings of the initial filtering exercise are presented at **Table 5.4.5** of **Technical Appendix 5.4**.

5.5.88 This filtering exercise identified that users of the A83 have the potential to experience significant visual effects.

5.5.89 There are no railways located within 20 km of the Proposed Development and as such effects on rail users are not considered further within the assessment.

5.5.90 There are several ferry routes within the 35 km study area, five of which pass within the 20 km detailed study area. An initial filtering exercise has been undertaken to determine which have the potential for significant effects to arise and would therefore require detailed consideration in this chapter. The findings of the initial filtering exercise are presented at **Table 5.4.6** of **Technical Appendix 5.4**.

5.5.91 This filtering exercise identified that users of the following routes have the potential to be significantly affected by the Proposed Development:

- Ardminish (Gigha) – Tayinloan (Kintyre);
- Kennacraig (Kintyre) – Port Askaig (Islay);
- Kennacraig (Kintyre) – Port Ellen (Islay); and
- Lochranza (Arran) – Claonaig (Kintyre).

Recreation and Tourism

5.5.92 Within the 35 km study area, there are three National Scenic Areas, including Jura, Knapdale, and North Arran. Of these, North Arran NSA lies partially within the 20 km detailed study area. The Isle of Arran is a popular holiday and day trip destination with quaint coastal villages in contrast with its wild interior, which attracts hillwalkers and climbers. Visitors to Argyll and the Isles are also attracted by the watersports, cycling, heritage and wildlife.

Assessment Viewpoints

5.5.93 The following table sets out the viewpoints considered as part of this assessment. These viewpoints have been derived through desk-based, on-site analysis, interpretation of ZTVs and through consideration of the viewpoints used in the assessment of other nearby wind farms. The assessment viewpoints have also been consulted on as part of scoping and amended following feedback received.

5.5.94 The viewpoints are representative of the range of views towards the Proposed Development. They are not intended to cover every single view but are representative of a range of distances from the site and receptor types (e.g. residents, walkers, road users) and have been used to inform the assessment of effects on landscape character, the visual assessment, the cumulative assessment and the assessment of visual receptor groups.

5.5.95 Error! Reference source not found.**Table 5.2** identifies the 17 assessment viewpoints. The locations of these viewpoints are illustrated on **Figures 5.3** and **5.4**.

Table 5.2 – Assessment Viewpoints

Viewpoint	OS Grid Reference	Approximate Distance to Nearest Turbine	Receptor Type
Viewpoint 1 – Loch na Naich	173797, 644008	802m (T6)	Walkers
Viewpoint 2 – Killean (N)	171106, 644671	1,195m (T9)	Walkers
Viewpoint 3 – Tayinloan Jetty (N)	169389, 646484	2, 759m (T9)	Road users / Walkers / Ferry passengers
Viewpoint 4 – Point Sands	169593, 648369	3,741m (T9)	Walkers
Viewpoint 5 – Beinn Bhreac	175219, 636174	5,686m (T7)	Walkers
Viewpoint 6 – Ardminish Bay Jetty (Gigha) (N)	165385, 649093	7,503m (T9)	Road users / Walkers / Ferry passengers
Viewpoint 7 – Glenbarr War Memorial	167023, 637060	8,330m (T8)	Visitors / Road users / Walkers
Viewpoint 8 – Creah Bhan	164792, 650913	8,998m (T9)	Walkers
Viewpoint 9 – A83 at Clachan	177942, 657578	13,272m (T1)	Road users
Viewpoint 10 – Beinn Bharrain, Isle of Arran	190191, 642777	17,080m (T2)	Walkers
Viewpoint 11 – B8024, Knapdale	171535, 661644	16,182m (T9)	Road users / Walkers / Cyclists
Viewpoint 12 – Islay Ferry, West Loch Tarbert	161337, 658741	16,998m (T9)	Ferry passengers
Viewpoint 13 – High Lossit, south of Machrihanish	163151, 619188	26,065m (T7)	Road users / Walkers / Cyclists
Viewpoint 14 – Craighouse, Jura	153068, 667002	28,641m (T9)	Walkers
Viewpoint 15 – Maolbhuie Cottages, near Ardbeg Distillery	141144, 646221	30,819m (T9)	Road users / Walkers / Cyclists
Viewpoint 16 - Pirnmill (N)	187202, 644109	14,011m (T2)	Road users / Walkers / Cyclists
Viewpoint 17 – Machrie Bay *	189284, 634115	18,980m (T6)	Road users / Walkers / Cyclists

* Additional LVIA Viewpoint added following feedback received at scoping.

(N) – Night-time visualisation produced from this viewpoint in addition to day-time visualisation.

5.5.96 **Technical Appendix 5.5** provides a baseline description of the view from each assessment viewpoint, followed by a detailed analysis and assessment of the effects.

5.6 Assessment of Potential Effects

5.6.1 Following a brief summary of the Proposed Development, this section of the LVIA considers the effects of the Proposed Development on the physical features of the site (landscape fabric), landscape character, and visual amenity. It considers the effects during the construction and operation of the Proposed Development:

5.6.2 Effects during the construction phase are considered to be temporary and would have a short duration. Effects associated with the operational phase of the Proposed Development are considered to be long-term, reversible effects but are assessed as though permanent.

Project Description

5.6.3 A detailed description of the Proposed Development is set out in **Chapter 2: Proposed Development Description**. The description below summarises those details of the Proposed Development that have particular relevance to this LVIA.

5.6.4 The Proposed Development would comprise the following visible features which may have an impact on landscape character or visual amenity:

- up to 9 three-bladed horizontal axis wind turbines of up to 180 m tip height;
- at each wind turbine, associated low to medium voltage transformers and related switchgear;
- permanent wind turbine foundations;
- hardstand areas for erection of cranes at each wind turbine location;
- a network of on-site tracks including an access track, site entrance from the public road network, watercourse crossings, passing places and turning heads;
- borrow pits (dependent on availability of stone within the site);
- a substation compound containing electrical infrastructure, control building, welfare facilities and a communications mast;

- a network of buried electrical and communication cables to be routed alongside the access tracks;
- felling and replanting of forestry;
- temporary construction compound(s);
- signage; and
- habitat management and biodiversity enhancement (see **Chapter 7: Ecology Assessment** for details).

Effects during Construction on Existing Landscape Features

5.6.5 As identified in the baseline section, the existing landscape features present on the site or that may be affected by the Proposed Development are:

- Moorland and forest vegetation;
- Existing conifer trees;
- Watercourses; and
- Existing managed native hedgerows to the western and eastern sides of the A83 and the existing low stone wall on the eastern side of the A83 in the vicinity of the site access.

Moorland and forest vegetation

5.6.6 The construction phase would result in the removal of moorland vegetation and other such ground-level vegetation, through the construction of temporary access works at the junction between the A83 and the site access track, on-site access tracks, hardstanding areas, a substation, underground cabling, temporary borrow pit workings, construction compounds and turbine foundations. Underground electricity cables would generally follow access tracks.

5.6.7 The existing moorland and forest vegetation would be removed to allow construction of foundations for the various elements. Soils stripped as part of the establishment works would be stored in accordance with established soil handling best-practice for use during reinstatement works on completion of construction activities.

5.6.8 Referring to **Figure 1.3** of the EIAR, up to 6 borrow pit working search areas would be required. The final location, number and estimate of material won from each search area would be determined once full ground

investigation works and testing have been completed. All of the borrow pit search areas would be located within LCT 6 Upland Forest Moor Mosaic. Their excavation would be short-term and would result in the removal of moorland and grassland vegetation, soils and subsurface rock. Borrow pit workings would be restored following construction so as to encourage re-vegetation, although it is accepted that some regrading of the land profile would be expected.

5.6.9 The moorland and forest vegetation is a common feature of the wider surrounding upland landscape. It does not form part of the fabric of a site designated for its scenic value although it is a characteristic feature of the upland moorland landscape. The moorland and forest vegetation has evolved over time through land and forest management practice. The ongoing change and modification resulting from moorland and forest management practices, lowers its susceptibility. Combining its value and susceptibility results in the sensitivity of the moorland and grassland vegetation being low.

5.6.10 The moorland and forest vegetation would experience a medium magnitude of change resulting from the construction of new access tracks, laydown areas, crane pads and turbine foundations, affecting a small part of the overall moorland within the site, with large areas remaining in the western, northern and eastern parts of the site. The overall level of effect on the moorland and forest vegetation resulting from the Proposed Development is considered to be **moderate/minor**, which is not considered to be significant.

Existing conifer trees

5.6.11 The existing conifer trees are a common feature of the wider surrounding landscape. They do not form part of a site designated for its scenic value and have been introduced to the landscape to provide a timber crop and, over time, they would be felled and restocked as part of the management of the forest. Combining their value and susceptibility results in their sensitivity being low.

5.6.12 With the exception of turbine 9, which is located within an area of open ground, the turbines would be sited within existing areas of forestry. The turbines would be sited within 'key-holes' cut into the forestry blocks. This would result in a medium magnitude of change resulting from the

construction of new access tracks, laydown areas, crane pads and turbine foundations, affecting a small part of the forest within the site, with large areas remaining in the north western, north eastern and western parts of the site. The overall level of effect on the forest trees resulting from the Proposed Development is considered to be **moderate/minor**, which is not considered to be significant.

5.6.13 The remaining existing forestry blocks would experience no change as they would remain in-situ and would be felled in accordance with the Killean Estate Forest Management Plan.

Watercourses

5.6.14 Referring to **Figure 1.3**, a total of 16 watercourse course crossings would be required (there are only two new watercourse crossings proposed to be constructed, as there are 14 which are existing and may be upgraded). The site is incised by numerous channels created as water flows from the high ground. These features are considered to be of low value in landscape terms but highly susceptible to changes which affect their course or their quality. Combining their value and susceptibility results in the watercourse and drainage features having a medium level of sensitivity.

5.6.15 The proposed turbines and associated infrastructure have been located away from any watercourses/channels on the site. Therefore, it is only in the location of the proposed watercourse crossings where there is potential for construction effects to occur. Effects would be limited and controlled through best-practice construction and environmental practices, such that there would be no greater than a low magnitude change and a **moderate/minor** level of effect which would not be significant.

Existing managed native hedgerows to the western and eastern sides of the A83 and the existing low stone wall on the eastern side of the A83 in the vicinity of the site access

5.6.16 The construction of the temporary site access from the A83 would result in some limited removal of existing native hedgerows in the vicinity of where the site access meets the A83 in order to facilitate the delivery of abnormal indivisible loads (AIL), as illustrated at **Figure 2.7**. To the south of the entrance to the site access, a section of hedgerow along the western side of the A83 would be removed to facilitate the construction of

a load bearing surface to allow northbound AILs to turn off the A83. A further short section of hedgerow would be removed opposite the site entrance to allow vehicles to cross the A83 and enter the site. A traffic management plan would be put in place to allow vehicles to safely cross the A83.

5.6.17 On the eastern side of the A83 there would be limited vegetation removal in the immediate vicinity of the site entrance. In addition a short section of the existing low stone wall on the eastern side of the A83, to the immediate south of the site entrance, would be removed to allow sufficient clearance width for large vehicles to enter onto the site access track.

5.6.18 These works would be temporary and would be in place for the duration of the construction phase, before being removed and vegetation reinstated on completion of the construction phase.

5.6.19 It is anticipated that existing hedgerows to the north and south of the site entrance would remain and that adequate visibility would be available due to the height of the tractor units of the AIL vehicles, avoiding the need to remove longer sections of hedgerows.

5.6.20 Effects would be limited and controlled through best-practice construction and environmental practices, such that there would be no greater than a medium magnitude change and a **moderate** level of temporary effect which would not be significant.

Summary of effects on existing landscape features

5.6.21 The Proposed Development would result in a **moderate/minor effect** to the moorland and forest vegetation, a **moderate/minor effect** to the existing conifer trees, a **moderate/minor effect** to watercourses and drainage channels and no greater than **moderate effect** to the existing hedgerows and low stone wall adjacent to the A83. All these effects are considered to be not significant.

Assessment of Effects on Landscape Character

5.6.22 The LCTs covering the initial 35 km LVIA study area are shown on **Figure 5.12** and within the detailed 20 km LVIA study Area at **Figure 5.13**. LCTs within 20 km of the Proposed Development overlaid with the blade tip ZTV are illustrated at **Figure 5.14**.

5.6.23 As explained in the baseline section at Paragraph 5.5.34, an initial filtering process has been carried of all LCTs within the detailed 20 km LVIA study area which identified that, in addition to the three LCTs in which the Proposed Development is sited, a further two LCTs have the potential to be significantly affected by the Proposed Development. The LCTs assessed in detail in this chapter are:

- LCT 6 Upland Forest Moor Mosaic – Proposed Development is primarily located within this LCT;
- LCT 20 Rocky Mosaic – The site entrance and part of the access track to the Proposed Development is located within this LCT;
- LCT 19 Coastal Plain – Temporary access works at western end of the proposed access track is located within this LCT;
- LCT 22 Coastal Parallel Ridges – Located approximately 7 km to the west;
- LCT 1b Arran Raised Beach Coast– Located approximately 13.4 km to the east on the Isle of Arran; and
- LCT 21a Arran Granitic Uplands – Located approximately 14 km to the east on the Isle of Arran.

Sensitivity of Landscape Character to Wind Energy Development

5.6.24 The first stage in assessing the effects of the Proposed Development on landscape character is to evaluate the sensitivity of the LCTs brought forward into detailed assessment, to the type of change proposed. As indicated within GLVIA3, sensitivity of landscape character should be determined through a consideration of both susceptibility to change and any values associated with the landscape.

5.6.25 The ABLWECS[6] and the NALWCS [8] provide some guidance in assessing the sensitivity of those LCTs brought forward into detailed assessment. However, they should be read with caution as they do not necessarily just consider landscape sensitivity (value and susceptibility) and also consider 'landscape capacity'. NatureScot advise that such studies should not be referred to as 'capacity studies' as no local or regional targets are available on which to determine the 'capacity' for development. They advise that these studies *"should reflect their purpose, which is to provide a strategic assessment of relative landscape and visual sensitivity to certain defined forms of development"* [9].

5.6.26 Furthermore, they are over seven years old and are outdated to some extent by wind farm developments which have been either consented or constructed in the intervening period and changes to the onshore wind energy planning policy context. It is therefore necessary to evaluate whether changes to the baseline (in terms of recently consented or constructed wind farms) have altered sensitivity as reported in these studies.

5.6.27 It is also important to note that the judgements in these studies concern how sensitive each character type is to wind energy development being deployed within that specific unit. This is not necessarily the same as being of a particular sensitivity to wind farm development in an adjacent or distant character unit, which may only result in indirect effects on landscape character. The sensitivity of the character unit to wind energy development in an adjoining or distant character unit would typically be lower. This is because at any given location in a landscape, features of the wider landscape help to characterise that area, even where views out of a character area are not specifically mentioned as an important characteristic. It is the physical features and perceptual characteristics of the landscape in the immediate vicinity that have a far greater influence on character and one's sense of landscape character than distant features, no matter how tall they may be.

5.6.28 Therefore, whilst they are a useful tool to help inform the consideration of the value and susceptibility of the LCTs brought forward into detailed assessment, it should be noted that the findings have not necessarily been adopted verbatim. Rather the approach taken has been to seek to provide a sensitivity rating for each area in line with the approach advocated in GLVIA3, whilst taking the findings of these assessments into consideration.

5.6.29 **Table 5.3** below sets out the value, susceptibility and overall sensitivity of each LCT brought forward into detailed assessment.

Table 5.3 – Landscape Character Sensitivity

Landscape Character Type	Value	Susceptibility	Sensitivity
LCT 6 Upland Forest Moor Mosaic	Medium -not designated but provides the backdrop to the coastal LLAs and is relatively remote.	High – the linear form and elevation of the area provides prominent skylines to adjacent LCTs.	Medium high
LCT 20 Rocky Mosaic	High – parts designated as West Kintyre Coast LLA.	High – small-scale intimate LCT with intervisibility with adjacent LCTs.	High
LCT 19 Coastal Plain	High – parts designated as West Kintyre Coast LLA.	High – small-scale, flat plain with intervisibility with adjacent to LCTs and islands.	High
LCT 22 Coastal Parallel Ridges	High - not designated but is remote and tranquil and offers recreation opportunities.	High – small intimate scale LCT with expansive coastal views and views back to Kintyre Peninsula.	High
LCT 1b Arran Raised Beach Coast	High –designated as North Arran NSA and LLA.	High – small-scale strong visual connection west to Kintyre.	High
LCT 21a Arran Rugged Granitic Uplands	High – designated as North Arran NSA and WLA.	High – dramatic rugged upland that provides prominent form in views from many surrounding LCTs.	High

Effects on Landscape Character During Construction

5.6.30 The nine proposed turbines, hardstandings, temporary construction compound, substation compound, the six borrow pit search areas and the majority of the access tracks are located in LCT 6 Upland Forest Moor Mosaic. The site entrance and a small section of the access track leading from the A83 overlaps with LCT 20 Rocky Mosaic and the temporary access works on the western side of the A83 overlaps the edge of LCT 19 Kintyre Coastal Plain. This would result in direct effects during construction on these LCTs.

5.6.31 During the construction phase, there will be the temporary presence of cranes on the site and the movement of other construction traffic, consistent with the formation of access tracks, hardstandings, turbine foundations, other associated infrastructure and the installation of the turbines.

5.6.32 Effects during construction on landscape character will increase incrementally through the construction phase as more turbines, foundations, hardstandings and ancillary elements are constructed. Construction activities would move from turbine location to turbine location and, as activities increased in one location, they would be decreasing at locations where construction had finished.

5.6.33 Cranes would be involved in the erection of the turbines, but these would be onsite for a relatively short period during the overall construction phase. The cranes would form noticeable vertical features in the landscape for a short period of time but would be a relatively diminutive visual component given their slender form compared with the turbines being erected.

5.6.34 As previously discussed, there would be no significant effects on any existing landscape features. Whilst there would be localised areas of high magnitude of change directly within the site, resulting in a **major/moderate significant** effect to approximately 1 km, the effects on the wider LCT would be lower.

5.6.35 Construction activity would occur in an elevated, upland central part of LCT 6 that is surrounded to the north and south by wooded hillslopes which would serve to limit its influence on the surrounding slopes and lower-lying parts of the LCT. Between approximately 1 km and 2 km, there would be a medium magnitude of change upon the Upland Forest Moor Mosaic LCT (LCT6) during the construction phase. This would result in a temporary additional **moderate effect**, which would be **not significant**.

5.6.36 Overall, there would be a low magnitude of change and a temporary additional **moderate/minor effect** on the landscape character beyond approximately 2 km, and on the LCT as a whole, which would be **not significant**.

5.6.37 In terms of direct effects on the landscape character of the Rocky Mosaic LCT (LCT 20) during the construction, activity would be limited to a very

small section of the LCT where the site entrance and a small section of access track to the east of the A83 would be located. This would occur in the location of an existing track used to access the forest. As such there is occasional activity already taking place in this part of the LCT. Some localised vegetation removal and the removal of a short section of the low stone wall on the eastern side of the A83 would be required in the immediate vicinity of the site entrance. This would introduce a medium magnitude of change and result in a temporary additional **moderate effect** on a very small part of the LCT extending to more than 200 m to the north and south of the access track which would be **not significant**. There would also be indirect effects on views eastwards from the LCT resulting from the erection of turbines in the adjacent LCT 6 to the east of this LCT. This would result introduce a low magnitude of change and a temporary additional **moderate/minor effect** which would be **not significant**.

5.6.38 In terms of direct effects on the landscape character of the Kintyre Coast Plain LCT (LCT 19) during the construction, activity would be limited to a very small area opposite the site entrance and to the immediate west of the A83. Temporary site access works would require the removal of short sections of the existing managed hedgerow on the western side of the A83 and the construction of a temporary load bearing surface to allow AIL vehicles to safely turn off the A83 and enter the site. This temporary load bearing surface would result in a change to the character of an existing improved grass field. This would introduce a medium magnitude of change and result in a temporary additional **moderate effect** on the LCT. These effects would be contained by the field boundaries within which the works would be located extending to approximately 500 m to the north and west and approximately 200 m to the south of the works, which would be **not significant**. There would also be indirect effects on views eastwards from the LCT resulting from the erection of turbines in LCT 6. This would introduce a low magnitude of change and a temporary additional **moderate/minor effect** which would be **not significant**.

5.6.39 In terms of indirect effects on the other landscape character types brought forward into detailed assessment, LCT 22 Coastal Parallel Ridges on the Isle of Gigha would experience a low magnitude of change. Some limited additional effects would be experienced as construction takes

place on the distant hillside. However, views of activity taking place on the upland plateau would be largely restricted by the landform and the intervening forestry, mainly limiting views to cranes, with most construction activities screened from view. This would result in no greater than a low magnitude of change and a temporary additional **moderate/minor effect** that would be **not significant**.

5.6.40 LCT 1b Arran Raised Beach Coast located to the east of the Proposed Development would experience a very low magnitude of change with views of construction activity largely restricted by intervening landform and vegetation and limited to distant views of cranes, with the operational Deucheran Hill wind farm in the foreground. This would result in no greater than a temporary additional **minor effect** that would be **not significant**.

5.6.41 LCT 21a Arran Rugged Granitic Uplands located to the east of the Proposed Development would experience a very low magnitude of change with views of construction activity largely restricted by intervening landform and vegetation and limited to distant views of cranes, with the operational Deucheran Hill wind farm in the foreground and Cour Wind Farm also present within views. This would result in no greater than a temporary additional **minor effect** that would be **not significant**.

5.6.42 **Table 5.4** below summarises the effects on landscape character during construction.

Table 5.4 – Assessment of Effects on Landscape Character During Construction

Landscape Character Type	Sensitivity	Magnitude of Change	Effect	Significant
LCT 6 Upland Forest Moor Mosaic *Within approximately 1 km*	Medium High	High	Major/moderate	**Significant**
LCT 6 Upland Forest Moor Mosaic *Between approximately 1 km and 2 km*	Medium High	Medium	Moderate	Not significant
LCT 6 Upland Forest Moor Mosaic *Beyond approximately 2 km*	Medium High	Low	Moderate/minor	Not significant
LCT 20 Rocky Mosaic *Extending to approximately 200 m to the north and south of the site access track*	High	Medium	Moderate	Not significant
LCT 20 Rocky Mosaic *Indirect on views eastwards from the LCT*	High	Low	Moderate/minor	Not significant
LCT 19 Coastal Plain *Extending to approximately 500 m to the north and west and 200 m to the south of the works*	High	Medium	Moderate	Not significant
LCT 19 Coastal Plain *Indirect on views eastwards from the LCT*	High	Low	Moderate/minor	Not significant

Landscape Character Type	Sensitivity	Magnitude of Change	Effect	Significant
LCT 22 Coastal Parallel Ridges	High	Low	Moderate/minor	Not significant
LCT 1b Arran Raised Beach Coast	High	Very low	Minor	Not significant
LCT 21a Arran Granitic Uplands	High	Very low	Minor	Not significant

Bold text indicates a significant effect

Effects on Landscape Character During Operation

5.6.43 The effects on landscape character are discussed below in relation to each landscape character type brought forward into detailed assessment (see **Technical Appendix 5.3**). The magnitude of change on landscape character as a result of the Proposed Development has been determined using professional judgement based on the following factors:

- The percentage of the character type from where the site would theoretically and actually be visible;
- The distance between the character type and the site;
- The likely prominence of the turbines from the character type taking account of existing locally dominant characteristics in the character type; and
- The degree to which the physical and perceptual characteristics of the landscape would change as a result of the Proposed Development.

5.6.44 To aid the consideration of the operational effects on landscape character, the landscape character types within the detailed 20 km LVIA study area have been overlaid with the blade tip ZTV in **Figure 5.14**.

5.6.45 Beyond the immediate environs of the site, the ground level components of the Proposed Development would not be discernible from lower-lying areas due to the elevation of the plateau upon which the Proposed Development would be located. Therefore, effects on landscape character, as experienced in the wider landscape, for most locations arise largely in relation to the introduction of the nine proposed turbines into the landscape and the resultant changes to the experience of landscape character.

5.6.46 It is acknowledged that there may be more elevated areas where ground-level elements may be visible and these are considered within the assessment where relevant.

5.6.47 It is noted that in general, the magnitude of change in landscape character will incrementally decrease with distance from the turbines as they become gradually less prominent.

5.6.48 A summary of the effects on landscape character during operation is presented in **Table 5.5**. Note that for all character types stated within this table, the duration of the Proposed Development is considered to be long-term and reversible.

LCT 6 Upland Forest Moor Mosaic

5.6.49 The nine proposed turbines and the majority of the associated infrastructure would be located within the upland part of this LCT. Views from this LCT are broadly represented by **viewpoints 1**, **2**, and **5** (see **Volume 2b)**.

5.6.50 With reference to **Figure 5.14** showing landscape character types within 20 km overlaid with the blade tip ZTV, there is patchy theoretical visibility of up to all nine turbines across the upland, moorland plateau where the Proposed Development would be located. The undulating topography of the landform reduces theoretical visibility of the proposed turbines with fewer turbines visible from lower slopes and valleys. Actual visibility would be reduced further due to the coniferous plantations.

5.6.51 The proposed turbines would introduce direct effects on the LCT in the immediate vicinity of the site and indirect effects on the remaining parts of the LCT. The nine turbines would introduce tall vertical structures that would extend up to 180 m to blade tip. The turbines would be introduced into a large-scale, mosaic upland landscape amongst areas of commercial forestry, and in proximity to several existing operational wind farms, including the closest at Deucheran Hill, approximately 2.5 km to the east.

5.6.52 Although the proposed turbines would represent a notable change to the immediate locality of the application site, their location on the upland plateau serves to contain the landscape character effects, as the turbines would mostly be contained by forestry plantation. Referring to the representative viewpoints (**viewpoints 1**, **2** and **5**), despite the physical

size of the turbines they do not dominate the scale of the moorland, with open views still available allowing the scale and openness to still be perceived. The Proposed Development would add to the existing characteristic feature of wind turbines within the upland forest moor mosaic landscape, but the effect is not so great that the turbines become the single-most dominant characteristic feature.

5.6.53 Within the central, upland part of the LCT, the Proposed Development would represent a notable change in the number of wind turbines in the landscape, by adding to the existing influence exerted by operational schemes in the LCT. This would result in a high magnitude of change and a **major/moderate significant effect**. These effects would be contained within an area extending approximately 5.7 km to the north east, 2.4 km to the east and south east, 5 km to the south and approximately 1.6 km to the west to the edge of the LCT.

5.6.54 At greater distances, theoretical visibility becomes more intermittent and patchier due to the undulating terrain and series of low hills.

5.6.55 Between approximately 5.7 km and 7.2 km to the north east, there is no predicted visibility between Cruach Bhreac and Cruach na Seilcheig within Ballochroy Glen that leads east to Loch Garasdale. To the north of this glen there is theoretical visibility from the undulating, open moorland to the north east of Cnoc Donn, while extensive forestry to north east of Cruach na Seilcheig would restrict views of the Proposed Development and limit their influence of this part of the LCT. These factors, together with the increased distance would mean that between approximately 7.2 km and approximately 12 km to the north east, the Proposed Development would introduce a medium magnitude of change and a **moderate effect** that would be **not significant**.

5.6.56 Beyond approximately 12 km to the north east, the increased distance coupled with the proximity of the operational Freasdail Wind Farm would mean that the magnitude of change would reduce to very low, resulting in **minor effects** that would be **not significant**.

5.6.57 Beyond approximately 2.4 km to the east and south east, theoretical visibility is limited due to the undulating landform despite the proximity to the Proposed Development. A narrow band of visibility is predicted extending along the ridge of high ground between Deucheran Hill and

Cruach nan Gabhar. The operational Deucheran Hill Wind Farm is located within the north part of this band of predicted visibility, thus reducing the influence of the Proposed Development.

5.6.58 Between approximately 2.4 km and 5 km to the east and south east, the Proposed Development would introduce no greater than a medium high magnitude of change and a **major/moderate effect** that would be **significant**. However, these effects would only be experienced from the limited areas of higher ground within this part of the LCT, with substantial areas to the west and south of Cruach nan Gabhar within Teanchoisin Glen where there is no predicted visibility.

5.6.59 Beyond approximately 5 km to the east and south east, predicted visibility is very limited, leading to the magnitude of change reducing to very low, with effects judged to be **minor** and **not significant**.

5.6.60 Beyond approximately 5 km to the south the cluster of existing operational wind farms that comprises Auchadaduie, Blary Hill and Beinn an Tuirc I, II and III have a greater influence on the character of this part of the LCT. As such, due to the limited influence that the Proposed Development would have, the magnitude of change is assessed to be very low, with effects considered to be **minor** and **not significant**.

LCT 20 Rocky Mosaic

5.6.61 This LCT brought forward into detailed assessment is situated to the immediate west of LCT 6 Upland Forest Moor Mosaic, where the Proposed Development is located. None of the proposed turbines would be located within this LCT. However, a small section of the access track would be, following the route of an existing forest access track. Views from this LCT are represented by **viewpoints 7** and **9** (see **Volume 2b)**.

5.6.62 With reference to **Figure 5.14** illustrating landscape character types within 20 km overlaid with the blade tip ZTV, there is patchy theoretical visibility within this LCT with the majority of the LCT experiencing views of a limited number of turbines. With reference to **Figure 5.6** illustrating the hub height ZTV within 20 km, the majority of the LCT would only experience theoretical visibility of blade tips, with actual visibility likely to be further reduced by intervening vegetation on the west-facing slopes.

5.6.63 Near the site entrance from the A83, there would be theoretical visibility of the proposed turbines and there would be views of the site entrance and the associated infrastructure elements. The proposed wind farm access track would follow the route of an existing access track and therefore would introduce minimal change to the baseline landscape character. This would introduce a medium magnitude of change and a **moderate effect** that would be **not significant**, extending to approximately 4.4 km to the north and 4.7 km to the south of the site entrance.

5.6.64 Beyond approximately 4.4 km to the north, theoretical visibility is very limited and would only be experienced from occasional areas of higher ground such as from the more elevated section of the A83, as illustrated by **Viewpoint 9**. As such, the Proposed Development would introduce no greater than a very low magnitude of change, resulting in a **minor effect** that would be **not significant**.

5.6.65 Beyond approximately 4.7 km to the south, between Muasdale and Glenbarr there is intermittent predicted visibility, with the main area of predicted visibility located north of Glenbarr. With the topography of the west-facing slopes, together with the increased distance from the Proposed Development views would be limited to blade tips with occasional areas where turbine hubs would be visible, with ground-level components screened by the landform and intervening vegetation. Actual visibility would be further reduced by woodland on the west-facing slopes to the immediate east of this part of the LCT in the vicinity of Cruach Muasdale. The proximity of the adjacent Auchadaduie and Blary Hill wind farms to the east of this part of the LCT would also limit the influence of the Proposed Development on the character of this part of the LCT.

5.6.66 Taking these factors into consideration, between approximately 4.7 km and 9 km to the south, the Proposed Development would introduce a low magnitude of change, resulting in no greater than a **moderate/minor effect** that would be considered **not significant**.

LCT 19 Coastal Plain

5.6.67 This LCT is located approximately 2.1 km to the west of the Proposed Development. None of the proposed turbines would be located within this LCT. The proposed turning head at the western end of the access track

overlaps the eastern edge of the LCT opposite the site access from the A83. Therefore, apart from the direct effects of this element, the effects discussed below are indirect and are the result of effects on the character of available views out from this LCT. Views from the LCT are represented by **viewpoints 3** and **4** (see **Volume 2b**).

5.6.68 With reference to the **Figure 5.14** illustrating landscape character types within 20 km overlaid with the blade tip ZTV, there is theoretical visibility of up to all nine turbines across the whole LCT. However, with reference to the hub height ZTV at **Figure 5.6**, there is more limited visibility of turbine hubs due to the screening provided by the landform of the western edge of the peninsula, with a greater number of hubs visible further westwards within the LCT where the increased distance from the western slopes of the peninsula allows greater visibility.

5.6.69 The proposed turbines would introduce prominent new elements seen on the horizon of the easterly views, the degree of intervening landform and vegetative screening would mean that overall, the Proposed Development would introduce a medium magnitude of change. Combined with its sensitivity, this would result in a **moderate effect** that would be considered **not significant**.

LCT 22 Coastal Parallel Ridges

5.6.70 Located approximately 7 km to the west on the Isle of Gigha, this LCT extends across the island. None of the proposed turbines or associated infrastructure would be sited within this LCT. Therefore, any effects discussed below are indirect. Views from the LCT are represented by **viewpoints 6** and **8** (see **Volume 2b**).

5.6.71 With reference to **Figure 5.14** illustrating landscape character types within 20 km overlaid with the blade tip ZTV, there is theoretical visibility from the majority of the LCT, with all nine turbines visible on the Kintyre peninsula seen in easterly views.

5.6.72 The proposed turbines would introduce new elements seen on the horizon of easterly views. However, views eastwards towards the Kintyre peninsula are already influenced to a limited degree by views of the existing operational wind turbines at Beinn an Tuirc, Auchadaduie and Blary Hill that are seen on the skyline of the peninsula. Although not introducing new elements into the view, it is acknowledged that the Proposed

Development would introduce taller structures that would be more prominent in views east from this LCT than the existing operational turbines already present within views.

5.6.73 The character of available views from the LCT is strongly influenced by the relationship between the coastline and the sea to the west and east of the island. The Proposed Development would affect a small proportion of the easterly views that are available. Coupled with the distance and the separation between the LCT and the Proposed Development provided by the Sound of Gigha, it is judged that the Proposed Development would introduce a medium magnitude of change and result in a **moderate effect** that would be considered **not significant**.

LCT 1b Arran Raised Beach Coast

5.6.74 This LCT is located approximately 13.4 km to the east of the Proposed Development on the Isle of Arran. None of the proposed turbines or associated infrastructure would be sited within this LCT. Therefore, any effects discussed below are indirect. Views from the LCT are represented by **Viewpoint 16** (see **Volume 2b**).

5.6.75 With reference to **Figure 5.14** illustrating landscape character types within 20 km overlaid with the blade tip ZTV, there is extensive theoretical visibility across the LCT, with only some limited parts towards the southern end of the LCT where no visibility is predicted. Referring to **Figure 5.6** illustrating hub height theoretical visibility, up to six hubs would be visible across the majority of the LCT.

5.6.76 The proposed turbines would introduce new elements seen on the distant horizon of westerly views across Kilbrannan Sound. However, views west towards the Kintyre peninsula are already influenced to a degree by views of the existing operational wind turbines at Deucheran Hill and Cour that are seen on the skyline of the peninsula. Although not introducing new elements into the view, it is acknowledged that the Proposed Development would introduce taller structures that would be more prominent in views west from this LCT than the existing operational turbines already present within views.

5.6.77 The character of available views from the LCT is strongly influenced by its relationship with the sea to the west. The Proposed Development would introduce a small change that would affect a small proportion of the

westerly views that are available. Coupled with the distance and the separation between the LCT and the Proposed Development, it is judged that the Proposed Development would introduce a low to very low magnitude of change and result in a **minor effect** to the character of the LCT that would be considered **not significant**.

LCT 21a Arran Rugged Granitic Uplands

5.6.78 This LCT is located approximately 14 km to the east of the Proposed Development on the Isle of Arran. None of the proposed turbines or associated infrastructure would be sited within this LCT. Therefore, any effects discussed below are indirect. Views from the LCT are represented by **Viewpoint 10** (see **Volume 2b**).

5.6.79 With reference to **Figure 5.14** illustrating landscape character types within 20 km overlaid with the blade tip ZTV, there is relatively limited theoretical visibility from the LCT, with predicted visibility mainly experienced from the west facing slopes of Mullach, Beinn Bhreac and Meall nan Damh. There is limited and intermittent small pockets of theoretical from elevated locations around Goatfell, Beinn Bhiorach and Meall Mòr.

5.6.80 The proposed turbines would introduce new elements seen on the distant horizon of westerly views across Kilbrannan Sound. However, views west towards the Kintyre peninsula are already influenced to a degree by views of the existing Deucheran Hill and Cour turbines that are seen on the skyline of the peninsula. Although not introducing new elements into the view, it is acknowledged that the Proposed Development would introduce taller structures that would be more prominent in views west from this LCT than the existing operational turbines already present within views and that they would appear against the backdrop of the Sound of Gigha to the west of the Kintyre peninsula.

5.6.81 The character of available views from the LCT is strongly influenced by the contrast between the rugged, uplands and the sea below. The Proposed Development would introduce a small change that would affect a small proportion of the westerly views that are available. Coupled with the distance and the separation provided by Kilbrannan Sound between the LCT and the Proposed Development, it is judged that the Proposed Development would introduce a low to very low magnitude of change and

result in a **minor effect** to the character of the LCT that would be considered **not significant**.

5.6.82 A summary table of the effects on landscape character types during operation is provided below at **Table 5.5**.

Table 5.5 – Assessment of Effects on Landscape Character During Operation

Landscape Character Type		Sensitivity	Magnitude of Change	Effect	Significant
LCT 6 Upland Forest Moor Mosaic	*Within approximately 5.7 km to the north east, 2.4 km to the east and south east, 5 km to the south 1.6 km to the west*	Medium High	High	Major/moderate	**Significant**
	Between approximately 7.2 km and 12 km to the north east	Medium High	Medium	Moderate	Not significant
	Beyond approximately 12 km to the north east	Medium High	Very low	Minor	Not significant
	Between approximately 2.4 km and 5 km to the east and south east	Medium High	Medium high	Major/moderate	**Significant**
	Beyond approximately 5 km to the east and south east	Medium High	Very low	Minor	Not significant
	LCT 6 Upland Forest Moor Mosaic *Beyond approximately 5 km to the south*	Medium High	Very low	Minor	Not significant
LCT 20 Rocky Mosaic	*Between approximately 4.4 km to the north and 4.7 km to the south of the site entrance*	High	Medium	Moderate	Not significant
	LCT 20 Rocky Mosaic *Beyond approximately 4.4 km to the north*	High	Very low	Minor	Not significant
	Beyond approximately 4.7 km and 9 km to the south	High	Low	Moderate/minor	Not significant

Landscape Character Type		Sensitivity	Magnitude of Change	Effect	Significant
LCT 19 Coastal Plain		High	Medium	Moderate	Not significant
LCT 22 Coastal Parallel Ridges		High	Medium	Moderate	Not significant
LCT 1b Arran Raised Beach Coast		High	Low to very low	Minor	Not significant
LCT 21a Arran Granitic Uplands		High	Low to very low	Minor	Not significant

Bold text indicates a significant effect

Assessment of Visual Effects

5.6.83 Effects on visual amenity arise from changes to views resulting from the introduction of the Proposed Development. It comprises:

- An assessment of visual effects from the representative viewpoints brought forward into detailed assessment; and
- An assessment of visual effects on receptor groups such as settlements, roads and core paths brought forward into detailed assessment.

5.6.84 The assessment has been carried out through a combination of site visits and desk study using the ZTVs, wirelines and photomontages.

5.6.85 In accordance with Civil Aviation Authority (CAA) CAP 764[10] turbines taller than 150 m require visible aviation lighting. An adjusted visible aviation lighting scheme has been agreed with the CAA. In total four of the nine turbines (T3, T6, T8 and T9) are proposed to be fitted with visible red 2,000/200 candela (cd) lights on the nacelle of each turbine. These will operate in the reduced 200 cd intensity where meteorological visibility is greater than 5 km and where visibility is less than 5 km the lights will operate at 2,000 cd. The lights are also required to be able to shine a beam that reduces in intensity above and below the horizontal. It is important to highlight that when not obscured by cloud, the visibility in the area of the turbines can be expected to exceed 5 km for the majority of the time and as such, the lights would be dimmed to 200 cd.

Meteorological observations also suggest that the turbine hubs will be obscured on several hundred occasions a month by cloud.

5.6.86 It has been agreed with the CAA that there will be no requirement for intermediate lighting to be installed halfway between the nacelle and the ground-level.

5.6.87 Should the relevant regulatory actions concerning the mandatory carriage of a compatible Electronic Conspicuity system on aircraft be completed and signed into law the project could consider the installation an Electronic Conspicuity (i.e. transponder) based Aircraft Detection Lighting System. The installation of such a suitable Aircraft Detection Lighting System would significantly reduce the occasions when the lighting would be visible. A proposed planning condition relating to this matter is discussed in further detail in the Aviation Chapter of the EIAR and is included as **Technical Appendix 12.2**.

5.6.88 In order to carry out an assessment of the effects of visible aviation lighting the following assumptions have been made and applied in the figures and visualisations that have informed the assessment:

- Lighting is only shown on the hubs of the four turbines proposed to be fitted within visible aviation lights;
- No intermediate lighting is illustrated halfway between the nacelle and the ground-level;
- As the photography was taken in clear weather conditions when visibility was greater than 5 km the visualisations illustrate the reduced 200 cd intensity to reflect the lighting that would arise in those conditions as a result of the mitigation proposed (i.e. that the lighting will operate in the reduced 200 cd intensity where meteorological visibility is greater than 5 km and where visibility is less than 5 km the lights will operate at 2,000 cd). Nonetheless, these images represent the worst-case as should visibility be less than 5 km such that the 2,000 cd lighting was active, then these poor conditions would of themselves be such as to restrict the visibility of the lighting to no more than that of the 200 candela lighting seen in clear conditions[11];
- The reduction in the intensity of lights above and below the horizon has been illustrated on **Figure 5.8**– Turbine Lighting Intensity to 20 km

with Viewpoints. This ZTV shows the theoretical reduction in the candela intensity of the lights at vertical angles above and below the horizon to illustrate the reduction in the intensity of the lights at elevations below the level of a commercially available turbine light;

- Whilst the lighting would reduce in intensity above and below the horizontal this reduction has not been illustrated in the night-time visualisations. As such the visualisations are a worst-case. This matter has however been considered within the assessment judgements;
- The visualisations illustrate the period after the commencement of Evening Civil Twilight, when sufficient ambient light remains for the landform of the landscape on which the wind farm is proposed, to remain partially visible;
- Whilst the implementation of a suitable Aircraft Detection Lighting System would significantly reduce the occasions when the lighting would be visible, this has not been factored into the judgements of lighting effects which focus on the 'worst-case' scenario of the period when the lighting would be visible. The benefits of a reduction in the lighting associated with the Aircraft Detection Lighting System are nonetheless a matter for the wider planning balance exercise, addressed separately in the application submission;
- It is noted that the matter of darkness adaption is also a relevant consideration, with some receptors, in particular car drivers, not perceiving the lighting in the same manner as if they were in a fully dark environment, due to their vision being influenced by lighting sources in their proximity (i.e. car headlights). The same would apply to residents of residential properties who were viewing the aviation lighting from a location with existing lighting present (i.e. it is unlikely that residents would themselves be fully in a dark environment and their eyes therefore adapted to take in the full extent of the light from the turbines). This serves to further reduce the effects compared to how they are set out in the assessment, which again can be considered to represent a 'worst-case' position compared to what would be experienced by receptors in practice; and
- The frequency in which a viewpoint is likely to be visited during the hours of darkness is not a factor which is considered within the assessment of magnitude or sensitivity. However, it should be noted that viewpoints at hills summits and on long distance footpaths would

be unlikely to be visited after daylight hours. Any assessment of these receptors should therefore be considered a 'worst-case' scenario as in many cases the actual numbers of individuals who would be likely to experience the view would be very limited, although it is recognised that there will be a few individuals such as landscape photographers who may visit hilltops to take photographs at sunset or sunrise.

- It is understood that the value and susceptibility of visual receptors during the night-time period, may differ from during the day time period. For example, the value of views during the night-time period may be reduced due to the transient nature of views as people travel through the landscape, or that they may have some form of personal light for their safety, which would create an element of baseline light. It also reflects the limited time period during which the lights would be on when the features of the landscape could be perceived and appreciated before full darkness occurs. In this regard, the findings of the Reporters concerning this matter in the Crystal Rig IV Wind Farm Report to the Scottish Ministers are noted. Here it was concluded by the Reporters in paragraph 4.146 that *'we agree with the applicant that the value that can attributed to a view at night is low'*. In turn, the susceptibility of people experiencing night-time outdoors would depend in part on the degree to which their perception is affected by existing baseline lighting. In brightly lit areas, or when travelling on roads from where sequential views of lighting may already be experienced, the susceptibility of receptors is likely to be lower than from areas where the baseline contains no or limited existing lighting. It is noted that the matter of value and susceptibility of night-time views is not specifically addressed in the Guidelines for Landscape and Visual Impact Assessment due to the relatively new nature of this issue and that a bespoke approach to considering the value of night-time views is therefore required.

5.6.89 Further details about the approach and the methodology to the assessment of visible aviation lighting are set out in **Technical Appendix 5.7**.

Construction Effects

5.6.90 Construction activities associated with the Proposed Development would be screened from most parts of the study area, while activities would be

visible from more elevated locations that allows views across the uplands where the Proposed Development is located and from locations near to the site access from the A83 to the west of the site.

5.6.91 From lower-lying locations along the western flank of the Kintyre peninsula, such as from **viewpoints 3**, **4**, and **7** and from locations on the western edge of the Isle of Arran, such as from **Viewpoint 16**, ground-level activities would be screened by the low hills of the peninsula and by plantation woodland. In these locations the additional visual effects, over and above those addressed under the heading of Operational Effects, would arise in relation to views of the cranes erecting the turbines.

5.6.92 The cranes would be visible for a relatively short period and would be incidental when considered in the context of the turbines being erected. It is assessed that any views of these works would result in a low magnitude of additional change and no greater than temporary **minor effect** which would be **not significant**.

5.6.93 From more elevated locations relative proximity of the Proposed Development, such as from viewpoints 1 and 2, views extend across the site allowing views of construction activities and vehicular movements, in addition to the views of the cranes used to install the turbines. In these locations, there would be a medium to high magnitude of additional change which would result in a temporary, additional **major/moderate significant effect** during the construction phase.

5.6.94 From all other remaining viewpoints, ground-level activities would be screened through a combination of landform and vegetation. In these locations the additional visual effects, over and above those addressed under the heading of Operational Effects, would arise in relation to views of the cranes erecting the turbines.

5.6.95 The cranes would be visible for a relatively short period and would be incidental when considered in the context of the turbines being erected. It is assessed that any views of these works would result in a low magnitude of additional change and no greater than a **minor**, temporary effect which would be **not significant**.

Operational Effects

5.6.96 A detailed viewpoint assessment of the operational effects is presented at **Technical Appendix 5.5** and this considers the long-term visual effects during the operational phase of the Proposed Development for each of the 17 viewpoints.

5.6.97 For each of the assessment viewpoints, a short description is given of the baseline view, and a judgement is provided regarding the sensitivity of the key receptors likely to experience the view.

5.6.98 This is followed by a description of the features of the Proposed Development that would be visible from that viewpoint. This includes a description of how many turbine hubs and blades would be visible and the ground-level components of the Proposed Development which would be visible. For each viewpoint, there is a comment on how vegetation or topography would affect the actual visibility of the turbines.

5.6.99 A judgement is then provided of the magnitude of change that would be experienced at each viewpoint during both daylight hours and the hours of darkness, the level of the effect on the view and a statement provided to clarify whether the additional effect resulting from the Proposed Development is significant or not.

5.6.100 A summary of the sensitivity of the view, magnitude of change in the view, the level of effect and its significance is given in **Table 5.6** below. Where a viewpoint is representative of more than one type of visual receptor, the assessment carried forward into the table represents the most sensitive receptor group represented by the viewpoint.

5.6.101 With reference to the Viewpoint Assessment at **Technical Appendix 5.5**, when considered against the existing baseline it has been assessed that there would be a significant visual effect at six of the 17 representative viewpoints during daylight hours. These are as follows:

- Viewpoint 1 – Loch na Naich;
- Viewpoint 2 – Killean;
- Viewpoint 4 – Point Sands;
- Viewpoint 5 – Beinn Bhreac;
- Viewpoint 6 – Ardminish Bay Jetty, Gigha; and
- Viewpoint 8 – Creag Bhàn.

5.6.102 It was further assessed that during the hours of darkness there would be a significant visual effect at three of the 17 representative viewpoints. These are as follows:

- Viewpoint 1 – Loch na Naich;
- Viewpoint 2 – Killean;
- Viewpoint 5 – Beinn Bhreac;

Table 5.6 – Summary of Operational Effects on Viewpoints

		Daylight Hours			Hours of Darkness		
Viewpoint	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Viewpoint 1 – Loch na Naich	High	High	Major	**Significant**	Medium	Moderate	**Significant**
Viewpoint 2 – Killean	High	High	Major	**Significant**	Medium	Moderate	**Significant**
Viewpoint 3 – Tayinloan Ferry Terminal	High	Low	Moderate/minor	Not significant	Very low	Minor/no effect	Not significant
Viewpoint 4 – Point Sands	High	Medium	Moderate	**Significant**	Low	Moderate	Not significant
Viewpoint 5 – Beinn Bhreac	High	High	Major	**Significant**	Medium	Moderate	**Significant**
Viewpoint 6(N) – Ardminish Bay Jetty, Gigha	High	Medium	Moderate	**Significant**	Low	Moderate/minor	Not significant
Viewpoint 7 – Glenbarr War Memorial	High	Very low	Minor	Not significant	Very low	No effect	Not significant
Viewpoint 8 – Creag Bhàn	High	Medium	Moderate	**Significant**	Low	Moderate/minor	Not significant
Viewpoint 9 – A83 at Clachan	Medium	Medium	Moderate	Not significant	Low	Moderate/minor	Not significant
Viewpoint 10 – Beinn Bharrain	High	Medium	Moderate	Not significant	Very low	Minor	Not significant

		Daylight Hours			Hours of Darkness		
Viewpoint	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Viewpoint 11 – B8024, Knapdale	High	Medium	Moderate	Not significant	Very low	Minor	Not significant
Viewpoint 12 – Islay Ferry	High	Medium	Moderate	Not significant	Very low	Minor	Not significant
Viewpoint 13 – High Lossit, south of Machrihanish	High	Very low	Minor	Not significant	Very low	Minor	Not significant
Viewpoint 14 – Craighouse, Jura	High	Low	Moderate/minor	Not significant	Very low	Minor	Not significant
Viewpoint 15 – Maolbhuie Cottages, near Ardbeg Distillery	High	Low	Moderate/minor	Not significant	Very low	Minor	Not significant
Viewpoint 16*(N) - Pirnmill	High	Low	Moderate/minor	Not significant	Very low	Minor	Not significant
Viewpoint 17* – Machrie Bay	High	Low	Moderate/minor	Not significant	Very low	Minor	Not significant

Bold text indicates a significant effect

* Additional LVIA Viewpoint added following feedback received at scoping.

(N) – Night-time visualisation produced from this viewpoint in addition to day-time visualisation.

Assessment of Effects on Visual Receptor Groups

5.6.103 This section considers the effects of the Proposed Development on the visual receptor groups brought forward into detailed assessment. Principal visual receptors are illustrated on **Figures 5.17** and **5.18**.

Construction Effects on Visual Receptor Groups

5.6.104 It is recognised that there would be some additional temporary visual effects during the construction of the Proposed Development over and above those assessed under the operational phase.

5.6.105 The vast majority of effects, of note, when considering the construction phase would be experienced within the local environs of the site, with views from coastal areas to the west and east contained by topography.

5.6.106 The construction works would be visible from a number of locations within the local landscape. However, views of the construction phase would be restricted to views of cranes appearing above intervening landform and vegetation with ground-level components screened from view. These views would only be experienced for a relatively short duration during the construction, and they would be experienced within the context of the turbines being constructed.

5.6.107 Overall, it is assessed that there would be a low magnitude of additional effect during construction over and above the operational phase effects assessed below. This would result in a temporary **moderate** additional effect which would be **not significant**, and these effects need to be considered in conjunction with the operational effects identified below.

Operational Effects on Visual Receptor Groups

5.6.108 Views of the ground level components of the Proposed Development would be limited to a relatively short radius around the site and or would be experienced from receptors at elevated locations which allow views onto the upland plateau where the Proposed Development is located. Except where indicated, the discussion below therefore relates primarily to views of the proposed turbines.

Residential Receptors

5.6.109 As set out in **Section 5.5**, there are 12 residential properties located within 2 km. The initial filtering exercise carried out in **Technical**

Appendix 5.4 found that, of these properties, one property is uninhabitable, eight would not experience any theoretical visibility and two would experience very limited effects that would not be considered significant.

5.6.110 The preliminary assessment **Technical Appendix 5.4** found that a single property, Kilmory has the potential to experience significant visual effects. As such effects on this property were assessed in detail in the Residential Visual Amenity Assessment (RVAA) in **Technical Appendix 5.6**.

5.6.111 The RVAA concluded that when the experience from the property is considered in the round, its residents would not experience such an overbearing or overwhelming effect on their visual amenity that their property would become an unattractive place to live.

Effects on Settlements within 5 km

Killean

5.6.112 Killean is situated approximately 2.6 km to the west south west of the Proposed Development and sits alongside the A83 and to the south of the site access. It is a linear settlement comprising a number of traditional stone-built properties and farmhouses. The properties are associated with Killean Estate and are listed and include a number of distinctive 'Doll's Houses', considered further in **Chapter 6**. The properties are broadly orientated west to east, with a clear, open aspect west across the low-lying farmed coastal plain towards the Sound of Gigha, in the opposite direction to the Proposed Development. To the immediate east of the properties the wooded, western slopes of peninsula rise upwards, enclosing the eastern side of the properties and limiting views east towards the Proposed Development.

5.6.113 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to 6 turbines is predicted from a very small proportion of the settlement, with part of the settlement experiencing no predicted visibility. Referring to the hub height ZTV at **Figure 5.6**, up to 3 hubs would be visible in theory. However, views of the Proposed Development would be screened by the dense band of deciduous trees that extends along the lower slopes to the immediate east of the settlement.

5.6.114 During daylight hours, the Proposed Development would introduce a very small size and scale of change with the proposed turbines occupying a very small proportion of the view, with views screened by the intervening deciduous trees to the east of the settlement. Receptors would not experience any views of ground-level components which would be views screened by topography, except at the northern end of the settlement at the entrance to the site, where occasional vehicles would be seen accessing the Proposed Development via the new access, and some localised vegetation and stone wall removal would arise. However, receptors currently experience occasional views of forestry vehicles using the existing track to access Killean Forest.

5.6.115 Overall, the Proposed Development would introduce no greater than a very low magnitude of change. Combined with the high sensitivity of the residential receptors, this would result in a **minor effect** that would be **not significant**.

5.6.116 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7**, only a small proportion of the southern part of the settlement would experience theoretical visibility of one of the lit turbines, while the northern part of the settlement would not experience any theoretical visibility. However, in practice, due to the level of intervening screening provide by the deciduous trees to the immediate east of the settlement it is considered that the settlement would not experience any views. As such, during the hours of darkness receptors would experience no effects.

Tayinloan

5.6.117 Tayinloan is situated approximately 2.6 km to the west of the Proposed Development and to the west and east and partly alongside the A83. The settlement comprises a dispersed group of individual properties to the east of the A83, set within dense woodland. To the west of the A83 there is a more regular layout to the settlement with a mix of property types and ages.

5.6.118 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to 6 turbines is predicted from the majority of the settlement, with a very small part of the north western edge of the settlement experiencing theoretical of up to all nine turbines. However, referring to the hub height

ZTV at **Figure 5.6**, none of the settlement would experience theoretical visibility of any turbine hubs. Although the settlement would experience theoretical visibility of blade tips, views would be largely screened by intervening forestry to the east of the settlement on the western slopes of the peninsula.

5.6.119 During daylight hours, the Proposed Development would introduce a very small size and scale of change with the proposed turbines occupying a moderate proportion of the view, with views limited to a reduced number of blade tips largely screened by landform to the east of the settlement. In practice views of the turbine blade tips would be screened by existing woodland to the east of the settlement. Receptors would not experience any views of ground-level components which would be screened by topography.

5.6.120 Overall, the Proposed Development would introduce no greater than a very low magnitude of change. Combined with the high sensitivity of the residential receptors, this would result in a **minor effect** that would be **not significant**.

5.6.121 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7**, none of the settlement would experience theoretical visibility of the lit turbines. As such, receptors would experience no effects.

Effects on Settlements within 5 to 10 km

Ardminish (Isle of Gigha)

5.6.122 Ardminish is located approximately 7.6 km to the west on the eastern shores of Gigha. The settlement comprises a mix of property types and ages, with properties generally orientated eastwards facing towards Ardminish Bay and The Sound of Gigha, with views across the water to the long, low profile of Kintyre Peninsula. Some properties within the settlement are positioned at a slightly higher elevation and experience more open views, while those properties close to the minor road experience views across the foreshore which comprises scrub vegetation. Views from the settlement are represented by **Viewpoint 6** (see **Volume 2b**).

5.6.123 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all

nine turbines is predicted from the settlement and referring to the hub height ZTV at **Figure 5.6**, receptors would experience theoretical visibility of all nine turbine hubs.

5.6.124 During daylight hours, the Proposed Development would introduce a medium scale of change, with the turbines introducing a new focal point in south easterly views and occupying a medium lateral extent of the view. The proposed turbines would not introduce new features to the skyline, with existing operational turbines already present in views further south along the peninsula. However, they would appear more prominent due to their closer proximity to the viewpoint. Overall, during daylight hours, the Proposed Development would introduce a medium magnitude of change and a **moderate significant effect**.

5.6.125 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7**, all four lit turbines would be visible. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. However, with reference to **Viewpoint 6 Sheet F (Figure 5.42)** there are occasional light sources present along the Kintyre coastline and within the settlement itself with lighting at properties. With reference to the lit turbine lighting intensity ZTV at **Figure 5.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the settlement, their intensity would be perceived at a lower intensity than the stated 2,000/200 cd. The intensity of the lights would also be reduced due to the distance from the settlement.

5.6.126 This would result in a low magnitude of change and introduce a **moderate/minor effect** that would be **not significant**.

Effects on Settlements within 10 to 20 km

Pirnmill (Isle of Arran)

5.6.127 Pirnmill is located approximately 14 km to the east of the Proposed Development on the western shore of the Isle of Arran. The settlement has a linear form and comprises traditional stone-built, white-washed properties orientated westwards across Kilbrannan Sound. Views from the settlement are represented by **Viewpoint 16** (Figure 5.52, see **Volume 2b**).

5.6.128 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all nine turbines is predicted from the settlement and referring to the hub height ZTV at **Figure 5.6**, receptors would experience theoretical visibility of up to six turbine hubs.

5.6.129 During daylight hours, the Proposed Development would introduce a small scale of change, occupying a small lateral extent of the view, with lower parts of the turbine towers partially screened by intervening trees. Although the turbines appear above the horizon, they do not dominate the more intimate scale landscape below and are less apparent and appear smaller in scale than the operational Cour turbines. They are set back from the brow of the hill, and as such appear more closely associated with the landscape beyond than the coastal landscape below. Overall, during daylight hours, the Proposed Development would introduce a low magnitude of change.

5.6.130 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7**, up to two of the four lit turbines would be visible. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. With reference to the lit turbine lighting intensity ZTV at **Figure 5.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the settlement, their intensity would be perceived at a slightly lower intensity than the stated 2,000/200 cd. The intensity of the lights would also be reduced due to the distance from the settlement.

5.6.131 This would result in a very low magnitude of change and introduce a **minor effect** that would be **not significant**.

Table 5.7 – Assessment of Effects on Settlements

		Daylight Hours			Hours of Darkness		
Settlement	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Settlements within 5 km							
Killean	High	Very low	Minor	Not significant	Very low	No effects	Not significant

		Daylight Hours			Hours of Darkness		
Settlement	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Tayinloan	High	Very low	Minor	Not significant	Very low	No effects	Not significant
Settlements within 5 to 10 km							
Ardminish (Gigha)	High	Medium	Moderate	**Significant**	Low	Moderate/ minor	Not significant
Settlements within 10 to 20 km							
Pirnmill (Arran)	High	Low	Moderate/ minor	Not significant	Very low	Minor	Not significant

Bold text indicates a significant effect

Core Paths and Walking Routes (The Kintyre Way and the Arran Way)

5.6.132 The following assessment focuses on those core paths and routes identified in the filtering exercise at **Technical Appendix 5.4** as having the potential to experience significant effects.

5.6.133 In accordance with the methodology set out in **Technical Appendix 5.1** the sensitivity of users of public rights of way can vary between medium and very high depending on the reason for which they are using the route. A summary of the effects is presented at **Table 5.8** below.

Effects on Core Paths within 5 km

Core Path C094 – Tayinloan-Carradale East-West link

5.6.134 The core path commences at Tayinloan approximately 2.4 km to the west of the Proposed Development and heads south west across the foreshore before heading eastwards inland and following the forest track that leads through the site (the route forms part of the Kintyre Way which is discussed separately subsequently in this section). The path then follows a route broadly eastwards, passing through the centre of the site and continuing through Deucheran Wind Farm at Deucheran Hill to Auchenbreck, where it heads south eastwards and meets Core Path C088 Campbeltown to Cloanig to the south of Cnoc Reamhar. Views from the path are represented by viewpoints 1 and 2 (**Figure 5.37 and 5.38**, see **Volume 2b**).

5.6.135 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, as the route heads south west from Tayinloan towards the shore, the greater distance from the west-facing slopes of the Kintyre peninsula means that there is progressively greater theoretical visibility with up to all nine turbine blades and hubs visible above the landform to the east as the route passes along the shoreline.

5.6.136 The Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of the view. The turbines would appear above the landform but are contained by the high ground and with some further screening provided by forestry on the western slopes. Due to the elevation of the path relative to the Proposed Development, ground-level components would be screened from view by topography. During daylight hours, walkers would experience a medium high magnitude of change. Combined with their high sensitivity this would result in a **major/moderate and significant effect**.

5.6.137 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7**, walkers would experience theoretical visibility of up to three of the seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where no other lights are currently present. With reference to the lit turbine lighting intensity ZTV at **Figure 5.8**, although the lit turbines would be visible in theory, where views are not screened by intervening vegetation, due to the difference in elevation between the aviation light and the path their intensity would be perceived to be much lower than the stated 2,000/200 cd. This would result in a medium magnitude of change and a **moderate effect which is a significant effect**.

5.6.138 As the route continues east inland, views would be progressively screened and limited to theoretical views of blade tips only. However, in practice views would be largely screened by the forestry on the western slopes for a further distance of approximately 890 m until the path crosses the A83 and starts to follow the forest track and the proposed site access track that leads to the site.

5.6.139 Over this section of the route, during daylight hours receptors would experience no greater than a low to very low magnitude of change and **minor effects** that would be **not significant** and a very low magnitude of

change and no effects during the hours of darkness due to the turbine lights being screened from view.

5.6.140 As the route follows the forest track and the proposed site access route, over a distance of approximately 2.2 km to Braids, there would be progressively greater visibility of the proposed turbines and ground-level components. Receptors walking in an easterly direction would experience direct views towards the Proposed Development, with some limited screening provided where parts of the forest have not been felled. Receptors would experience close-range views with the Proposed Development occupying a large proportion of the view and introducing a large change. During daylight hours, this would introduce a high magnitude of change and a **major significant effect**. During the hours of darkness, although the turbine lights would be visible, they would be perceived at a much lower intensity due to the difference in elevation between the lights and the path. This would introduce a medium magnitude of change and a **moderate significant effect**.

5.6.141 As the route continues eastwards from Braids, it passes directly between the proposed turbines. Receptors would experience close-range views of the proposed turbines and ground-level components. Receptors would also experience views east towards the operational Deucheran Hill turbines. Given the proximity of the path to the turbines, during daylight hours this would introduce a high magnitude of change and a **major significant effect**. During the hours of darkness, although the turbine lights would be visible, they would be perceived at a much lower intensity due to the difference in elevation between the lights and the path. This would introduce a medium magnitude of change and a **moderate significant effect**. These effects would continue for approximately 4.3 km until the path enters Gleann Drochaide and views are screened by landform and forestry.

5.6.142 Receptors would experience no views for approximately 985 m until the route climbs out of the valley and passes to the immediate south of Deucheran Hill. The route then passes through the operational Deucheran Hill Wind Farm for approximately 1 km. Over this section of the route, views would be partially screened by plantation woodland but where views are available, given the proximity of the Proposed Development during daylight hours this would introduce a high magnitude of change and a

major significant effect. During the hours of darkness, although the turbine lights would be visible, they would be perceived at a much lower intensity due to the difference in elevation between the lights and the path. This would introduce a medium magnitude of change and a **moderate significant effect**.

5.6.143 With reference to **Figure 5.18,** there is no predicted visibility for the remaining section of the path to the east of the operational Deucheran Hill Wind Farm.

Core Path C293 – Clachaig Water circular, Muasdale

5.6.144 The core path is located approximately 4.6 km to the south west of the Proposed Development. With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all nine turbine blade tips and up to three hubs is predicted from the southern and eastern sections of the route, with no predicted visibility from the north section.

5.6.145 During daylight hours, the Proposed Development would introduce a small size and scale of change with the proposed turbines occupying a small proportion of the north easterly views. Due to the elevation of the route relative to the Proposed Development, ground-level components would be screened from view by topography. Actual visibility would be further reduced due to intervening forestry near High Clachaig. Walkers would experience no greater than a low magnitude of change. Combined with their high sensitivity this would result in a **moderate/minor effect** that would be **not significant**.

5.6.146 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7**, walkers would experience theoretical visibility of one proposed lit turbine. The light would appear as a small, noticeable red dot, introduced in a part of the view where there are no other lights are currently present. With reference to the lit turbine lighting intensity ZTV at **Figure 5.8**, although the lit turbines would be visible in theory, where views are not screened by intervening vegetation, due to the difference in elevation between the aviation light and the path its intensity would be perceived to be much lower than the stated 2,000/200 cd. This would result in a low to very low magnitude of change and a **minor effect** that would be **not significant.**

Effects on Core Paths within 5 to 10 km

Core Paths on the Isle of Gigha

5.6.147 A group of core paths comprising Core Path C095 – Gigha Ferry pier – Ardmore Gds – South Pier, Core Path C096 – Gigha Jetty – Creag Bhan – Port Mor and Core Path C539 – Creag Bhan view point, Gigha are located approximately 7.7 km to the west of the Proposed Development on the Isle of Gigha. These paths share very similar views east across The Sound of Gigha towards the Kintyre Peninsula. As such they are considered collectively. Views from these paths are represented by viewpoints 6 and 8 (**Figure 5.42 and 5.44**, see **Volume 2b**).

5.6.148 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all nine turbines is predicted from these paths, with only some short sections along Core Path C539 before it climbs Creag Bhàn and from Core Path C096 near Tarbert where no visibility is predicted.

5.6.149 During daylight hours, the proposed turbines would introduce a medium scale of change, introducing a new focal point in views across The Sound of Gigha and occupying a medium lateral extent of the view. Turbines are already present within views and as such the proposed turbines would not introduce new features to the skyline. However, they would appear more prominent. This would introduce a medium magnitude of change. Combined with the high sensitivity of the receptors, this would result in a **moderate significant effect**.

5.6.150 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7** receptors would experience theoretical visibility of all four of the lit turbines. The lights would be seen as small, noticeable red lights that would appear above the landform of the peninsula, in a part of the view where few other lights are currently present. With reference to the lit turbine lighting intensity ZTV at **Figure 5.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and these paths, their intensity would be perceived at a lower intensity than the stated 2,000/200 cd. This would result in a low magnitude of change and a **moderate/minor** effect that would be **not significant**.

Core Path C534 – St Catherines Church and Poll More Bay, Gigha

5.6.151 This core path is located approximately 7.7 km to the west of the Proposed Development. With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all nine turbine blade tips and hubs is predicted from the south eastern half of the path. However, although theoretical visibility is predicted from the southern half of the path, extensive tree cover around Achamore House would largely screen views. During daylight hours this would introduce no greater than a low magnitude of change and a **moderate/minor effect** that would be **not significant**.

5.6.152 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7** receptors would experience theoretical visibility of all four of the lit turbines. However, due to the level of intervening screening this would introduce a low to very low magnitude of change and a **minor** effect that would be **not significant**.

Core Path C304 – Glenbarr School route

5.6.153 This core path is located approximately 7.9 km to the south west of the Proposed Development and follows the A83 for approximately 790 m. Views from this path are represented by **Viewpoint 7** (**Figure 5.43**, see **Volume 2b**).

5.6.154 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all nine turbine blade tips is predicted from the majority of the path. Referring to the hub height ZTV at **Figure 5.6**, only a short section of the route in the vicinity of the war memorial would experience theoretical visibility of up to three hubs. However, intervening tree cover would largely screen views. The magnitude of change during daylight hours is considered to be low to very low, resulting in a **minor effect** that would be **not significant.**

5.6.155 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7,** there is very limited theoretical visibility of one lit turbine. However, due to the level of intervening screening this would introduce a very low magnitude of change and a **minor** effect that would be **not significant**.

Table 5.8 – Assessment of Effects on Core Paths

			Daylight Hours			Hours of Darkness		
Route	**Section**	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Core Path C094 – Tayinloan-Carradale East-West link	*Approximate 1.2 km section south west of Tayinloan*	High	Medium high	Major/moderate	**Significant**	Medium	Moderate	**Significant**
	Approximate 890 m section at A83	High	Low to very low	Minor	Not significant	Very low	No effects	Not significant
	Approximate 2.2 km along forest track to Braids	High	High	Major	**Significant**	Medium	Moderate	**Significant**
	Approximate 4.3 km section from Braids	High	High	Major	**Significant**	Medium	Moderate	**Significant**
	Approximate 1 km section Deucheran Hill	High	High	Major	**Significant**	Medium	Moderate	**Significant**
Core Path C293 - Clachaig Water circular, Muasdale	*Approximate 1.3 km along southern and eastern sections*	High	Low	Moderate/minor	Not significant	Low to very low	Minor	Not significant
Core Paths C095, C096, C539 – Gigha		High	Medium	Moderate	**Significant**	Low	Moderate /minor	Not significant
Core Path C534 – Gigha		High	Low	Moderate/minor	Not significant	Low to very low	Minor	Not significant

			Daylight Hours			Hours of Darkness		
Route	**Section**	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Core Path C304 – Glenbarr School route		High	Low to very low	Minor	Not significant	Very low	Minor	Not significant

Bold text indicates a significant effect

Effects on the Kintyre Way and the Arran Way

Kintyre Way

5.6.156 The Kintyre Way commences in Tarbert and meanders south to Macrihanish in the south across seven stages. With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility across the route is intermittent, with the majority of theoretical visibility occurring between Tayinloan and Deucheran Hill where it follows the same route as Core Path C094 – Tayinloan-Carradale East-West link that crosses through the site.

5.6.157 From the north, between Tarbert and Claonaig, there is very intermittent and patchy theoretical visibility. The first patch of theoretical visibility occurs to the south of Cruach Doire Lèithe, with an area of forestry as such walkers would experience no effects.

5.6.158 To the south west of Skipness the route follows the B8001, where theoretical visibility of up six turbines is predicted. Given this section of the route is approximately 20 km from the Proposed Development and the limited theoretical visibility, together with the closer proximity of this section of the route to the operational Cour Wind Farm, walkers would experience no greater than a very low magnitude of change and **minor effects** during both daylight hours and the hours of darkness that would be considered **not significant**.

5.6.159 Between Claonaig and Clachan, theoretical visibility occurs between Achnaglass and Clachan over an approximate 3.5 km section to the immediate north of Loch Ciaran. However, forestry partially restricts views, with more open views towards the Proposed Development available across the loch. With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, walkers would experience theoretical views of up to all nine turbines and, referring to **Figure 5.6** illustrating the hub height ZTV, up to six turbine hubs. However, where more open views are available across Loch Ciaran, views would be limited to blade tips only. The Proposed Development would introduce a small change and would occupy a small proportion of the view. During daylight hours this would introduce a low magnitude of change and result in a **moderate/minor effect** that would be **not significant**.

5.6.160 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7**, there is limited theoretical visibility of up to two lit turbines with no theoretical visibility of any lit turbines from the more open section across Loch Ciaran. Where views are available from this section, the lights would be seen as small, noticeable red lights that would appear above the landform of the peninsula, in a part of the view where there no other lights currently present. With reference to the lit turbine lighting intensity ZTV at **Figure 5.8**, although a limited number of lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the path, their intensity would be perceived at a lower intensity than the stated 2,000/200 cd. This would result in a low to very low magnitude of change and a **minor effect** that would be **not significant**.

5.6.161 Between Clachan and Tayinloan, there is no further visibility from the route as it continues along the western edge of the peninsula until it approaches Rhunahaorine Point. As the route moves further west away from the hills, the screening provided by the Kintyre landform reduces and walkers would experience oblique views inland towards the hills, where the Proposed Development would be seen. The blades, hubs and upper parts of the towers would be seen above the landform but would be partly screened by intervening forestry on the hills. This would introduce a medium magnitude of change and a **moderate significant effect** over a distance of approximately 6.2 km to the north of Tayinloan.

5.6.162 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7**, there is theoretical visibility of up to all four lit turbines. The lights would be seen as small, noticeable red lights that would appear above the landform of the peninsula, in a part of the view where there are few other lights currently present. With reference to the lit turbine lighting intensity ZTV at **Figure 5.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the path, their intensity would be perceived at a lower intensity than the stated 2,000/200 cd. This would result in low magnitude of change and a **moderate effect** that would be **not significant**.

5.6.163 As the route continues between Tayinloan and Carradale it follows Core Path C094 – Tayinloan-Carradale East-West link. As such, walkers would

experience the same effects experienced by walkers on this core path, reported above.

5.6.164 To the south of Carradale, with reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, there is practically no further theoretical visibility, apart from a very short section to the south of Lussa Loch over a distance of approximately 650 m and a further 1.1 km section near High Ranachan.

5.6.165 Given these sections of the route are over 15 km from the Proposed Development and the limited theoretical visibility, together intervening screening provided by forestry, walkers would experience no greater than a very low magnitude of change and **minor effects** during both daylight hours and the hours of darkness that would be considered **not significant**.

Arran Way

5.6.166 This promoted walking route passes around the western shores of the Isle of Arran, allowing walkers to experience views across Kilbrannan Sound to the Kintyre Peninsula.

5.6.167 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all nine turbine blade tips is predicted from the majority of the path as it passes around the western edge of Arran. Theoretical visibility commences in the north near to Rubha Creagan Dubha and continues for approximately 33 km, except for a short section at Lochranza where no visibility is predicted. Over this section, walkers would experience long-range views towards the Kintyre peninsula. The Proposed Development would be seen above the landform of the peninsula in the same part of the landscape that is occupied by the existing Cour turbines. This would introduce a small change that would occupy a small proportion of the broad panoramic views, resulting in a low magnitude of change and a **moderate/minor effect** that would be **not significant**.

5.6.168 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7**, there is theoretical visibility of up to all four lit turbines. The lights would be seen as very small, red dots that would appear above the landform of the peninsula, in a part of the view where there are few other lights currently present. With reference to the lit turbine lighting intensity ZTV at **Figure 5.8**, although the lit turbines would be visible in theory,

due to the difference in elevation between the aviation lights and the path, their intensity would be perceived at a much lower intensity than the stated 2,000/200 cd. Together with the distance from the Proposed Development, this would result in no greater than a very low magnitude of change and a **minor effect** that would be **not significant.**

Table 5.9 – Assessment of Effects on Scotland's Great Trails

		Daylight Hours			Hours of Darkness		
Route	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Kintyre Way							
Skipness to Claonaig *Approximate 3 km section*	High	Very low	Minor	Not significant	Very low	Minor	Not significant
Achnaglass to Clachan *Approximately 3.5 km section*	High	Low	Moderate /minor	Not significant	Low to very low	Minor	Not significant
Rhunahaorine Point *Approximate 6.2 km section*	High	Medium	Moderate	**Significant**	Low	Moderate	Not significant
Approximate 1.2 km section south west of Tayinloan	High	Medium high	Major/ moderate	**Significant**	Medium	Moderate	**Significant**
Approximate 890 m section at A83	High	Low to very low	Minor	Not significant	Very low	No change	Not significant
Approximate 2.2 km along forest track to Braids	High	High	Major	**Significant**	Medium	Moderate	**Significant**
Approximate 4.3 km section from Braids	High	High	Major	**Significant**	Medium	Moderate	**Significant**
Approximate 1 km section Deucheran Hill	High	High	Major	**Significant**	Medium	Moderate	**Significant**
Approximate 650 m section	High	Very low	Minor	Not significant	Very low	Minor	Not significant

		Daylight Hours			Hours of Darkness		
Route	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
south of Lussa Loch							
Approximate 1.1km section near High Ranachan	High	Very low	Minor	Not significant	Very low	Minor	Not significant
Arran Coastal Way							
Approximate 33 km section	High	Low	Moderate /minor	Not significant	Very low	Minor	Not significant

Bold text indicates a significant effect

Roads

5.6.169 The following assessment focuses on the A83 which was the only road identified in the filtering exercise at **Technical Appendix 5.4** as having the potential to experience significant effects.

5.6.170 In accordance with the methodology set out in **Technical Appendix 5.1** the sensitivity of users of roads can vary between low and high depending on the reason for which they are using the route. A summary of the effects is presented at **Table 5.10** below.

A83

5.6.171 The A83 passes through the western part of the study area and is located approximately 2 km to the west of the Proposed Development at its closest point at Tayinloan.

5.6.172 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, due to the landform of the western hills of the peninsula and the roads position at the foot of the slopes, theoretical visibility is limited and intermittent. Theoretical visibility of up to all nine turbines occurs to the north west of Clachan approximately 13 km to the north. There is no further visibility until the road approaches Tayinloan to the west of the site where views of a limited number of turbines are available in theory. Patchy theoretical visibility then occurs to the south of the Proposed Development between near Glenbarr between approximately 5 km and 10km distance from the Proposed Development.

5.6.173 Within approximately 10 km to the north and 20 km to the south of the Proposed Development, the road crosses through the West Kintyre Coast LLA. The road also forms part of the promoted Kintyre K66 driving route and allows extensive views across The Sound of Gigha and beyond. Users of main A roads are typically considered to have lower susceptibility to changes in visual amenity. However, in this instance, given its location within the LLA and is scenic coastal location, it is considered road users are more susceptible to change, which combined with the road's higher value results in uses of this road having medium sensitivity to changes in their visual amenity.

A83 – northbound

5.6.174 Road users would not experience any views of the Proposed Development until approximately 14 km to the south near Bellochantuy where some very limited theoretical visibility occurs over an approximate 880 m section of the road. With reference to the hub height ZTV at **Figure 5.6**, none of the turbine hubs would be visible. Referring to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, there would be a limited number of blade tips visible in theory with road users experiencing direct views across the coastline towards the Proposed Development. However, given the distance from the site the magnitude of change would be no greater than very low, resulting in **minor effects** that would be **not significant** during daylight hours. As none of the lit turbines would be visible road users would experience **no change** during the hours of darkness.

5.6.175 There is no further visibility predicted from the road until it approaches Glenbarr, approximately 9.4 km to the south of the Proposed Development, where there is predicted visibility over approximately 3 km as the road continues north towards Muasdale. Referring to the hub height ZTV at **Figure 5.6**, none of the turbine hubs would be visible from this section of the road. Road users would experience oblique, glimpsed views towards the Proposed Development. However, given the level of intervening screening provided by woodland to the east of the road on the slopes of Cruach Muasdale the magnitude of change would be no greater than very low, resulting in **minor effects** that would be **not significant** during daylight hours. As none of the lit turbines would be visible, road users would experience **no change** during the hours of darkness.

5.6.176 As the road continues north, there is no further visibility predicted for approximately 5.6 km until the road approaches Killean. However, with reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, due to the landform of the western hills of the peninsula and the road's position at the foot of the slopes, theoretical visibility is very limited and intermittent as the road continues north to Tayinloan over a distance of approximately 2.6 km. Road users would experience glimpsed, very oblique to perpendicular views towards the Proposed Development.

5.6.177 Extensive tree cover along eastern side of the road would screen views of the proposed turbines, with glimpsed views of the site access available at

Killean. This would introduce no greater than a very low magnitude of change and **minor effects** that would be **not significant** during daylight hours.

5.6.178 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7**, there is theoretical visibility of one lit turbine. The light would be seen as a small, red dot that would appear above the landform of the peninsula, in a part of the view where there are no other lights currently present. With reference to the lit turbine lighting intensity ZTV at **Figure 5.8**, although one of the lit turbines would be visible in theory, due to the difference in elevation between the aviation light and the road, its intensity would be perceived at a much lower intensity than the stated 2,000/200 cd. However, in practice, the extensive tree cover on the slopes to the east of the road would provide further screening, resulting in no greater than a very low magnitude of change and a **minor effect** that would be **not significant**.

5.6.179 To the north of Tayinloan, road users travelling north would experience no further effects as the Proposed Development would appear to their rear as they continue northwards along the road.

A83 - southbound

5.6.180 Travelling southwards along the A83, road users would not experience any views of the Proposed Development until an approximate 1.4 km section of the road located approximately 14.2 km to the north north east where the road passes through a large area of forest plantation near to Sheirdrim Hill and to the north east of Clachan.

5.6.181 Road users would experience sustained, slightly oblique views towards the Proposed Development which would be seen on the distant hills that provide the skyline to views from this section of the road, as illustrated by **Viewpoint 9** (**Figure 5.45**, see **Volume 2b**). Parts of all nine proposed turbines would be seen on the skyline, introducing a medium scale of change that would occupy a small proportion of the view. During daylight hours this would introduce a medium magnitude of change and a **moderate effect** that would be **not significant**.

5.6.182 With reference to the lit turbine ZTV at **Figure 5.7** three lit turbines would be visible during the hours of darkness. However, the intervening forestry would provide further screening that would result in two aviation

lights being visible. The lights would be seen as very small, red dots seen on the skyline, in a part of the view where no other lights are currently present, apart from the occasional lights of vehicles travelling along the road.

5.6.183 With reference to **Figure 5.8** showing the turbine lighting intensity, the intensity of the lights would be greatly reduced due to the difference in elevation between the turbine lights and the distance from this section of the road. This would result in no greater than a low magnitude of change and a **moderate/minor effect** that would be **not significant**.

5.6.184 As the road continues south along the western coastline, there is no further visibility predicted for approximately 11 km until Rhunahaorine where there is predicted visibility of a limited number of turbines for approximately 6 km as the road continues south through Tayinloan and Killean.

5.6.185 Over this section of the road, travellers would experience the same effects as those experienced by northbound travellers between Killean and Tayinloan with effects considered to be **minor** and **not significant** during daylight hours and the hours of darkness for the reasons set out above in the preceding section.

5.6.186 To the south of Killean, road users travelling southwards would experience no further effects as the Proposed Development would appear to their rear as they continue southwards along the road.

Table 5.10 – Assessment of Effects on Roads

		Daylight Hours			Hours of Darkness		
Road	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
A83 - northbound							
Approximate 880 m section south of Bellochantuy	Medium	Very low	Minor	Not significant	No change	No effects	Not significant
Approximate 3 km section near Glenbarr	Medium	Very low	Minor	Not significant	No change	No effects	Not significant

		Daylight Hours			Hours of Darkness		
Road	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Approximate 2.6 km section Killean to Tayinloan	Medium	Very low	Minor	Not significant	Very low	Minor	Not significant
A83 - southbound							
Approximate 1.4 km section north east of Clachan	Medium	Medium	Moderate	Not significant	Low	Moderate/ minor	Not significant
Approximate 6 km section from Rhunahaorine to south of Killean	Medium	Very low	Minor	Not significant	Very low	Minor	Not significant

Effects on Ferry Routes

5.6.187 People travelling on ferries are considered to have medium susceptibility. However, many of the users are likely to be travelling for recreation or tourism. The routes allow large-scale, dramatic views towards Gigha, Islay, Arran and of the Kintyre peninsula, with views towards designated areas such as North Arran and Knapdale NSAs as well as the West Kintyre Coast LLA. As such the value of these views is judged to be high. Overall, ferry users are considered to have high sensitivity.

5.6.188 LVIA Viewpoint 12 (Figure 5.48, see **Volume 2b)** is representative of views experienced from the Kennacraig to Islay ferry routes. In addition, representative wirelines have been provided in **Appendix 5.9** to illustrate the nature of views from the Ardminish to Tayinloan, Kennacraig to Islay and the Lochranza ferry routes.

Ardminish (Gigha) – Tayinloan (Kintyre)

5.6.189 This ferry route passes between Tayinloan on the Kintyre peninsula and Ardminish on the Isle of Gigha, with the ferry port at Tayinloan located approximately 2.9 km to the west of the Proposed Development. Views

from the Tayinloan ferry port are represented by **Viewpoint 3 (Figure 5.39)** and views that would be experienced from the ferry are broadly represented by **Viewpoint 6** (**Figure 5.42,** see **Volume 2b**).

5.6.190 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, due to the landform of the western hills of the peninsula, theoretical visibility is more limited at Tayinloan jetty due to its close proximity to the wooded hills which partially screens views. However, theoretical visibility of all nine turbines occurs across the ferry route and at the Ardminish jetty due to the greater distance from the hills.

5.6.191 All nine proposed turbines would be visible in easterly views, appearing above the ridgeline of the Kintyre Peninsula that provides the backdrop to easterly views with all of the hubs also seen on the skyline. The proposed turbines would introduce a new focal point and a medium scale of change that would occupy a medium lateral extent of the view. However, the proposed turbines would not introduce new features to the skyline, with existing operational turbines already present in views further south along the peninsula. However, they would appear more prominent due to their closer proximity to the ferry route. Overall, during daylight hours, the Proposed Development would introduce a medium magnitude of change and a **moderate, significant effect**.

5.6.192 Referring to the lit turbine ZTV at **Figure 5.7** all four of the lit turbines would be visible with the lights seen as small, noticeable red lights that would appear above the landform of the peninsula, in a part of the view where few other lights are currently present. However, with reference to **Figure 5.8** their intensity would be greatly reduced due to the difference in elevation between the turbine lights and the distance from the ferry route. During the hours of darkness this would introduce a **moderate/minor** non-significant effect.

5.6.193 These effects would be more likely to be experienced by those travellers heading towards Tayinloan where they would experience direct views towards the Proposed Development. In contrast, ferry users travelling towards Ardminish would be more likely to be focussed on views west towards Gigha although it is acknowledged that they would experience such effects in views towards the Kintyre peninsula.

Kennacraig (Kintyre) – Port Askaig/Port Ellen (Islay)

5.6.194 These two routes link Kennacraig with Islay and both pass approximately 11 km to the north of the Proposed Development. The Kennacraig -Port Askaig route continues north west towards Islay, while the Kennacraig – Port Ellen route passes to the west of the Isle of Gigha. Views from the Kennacraig -Port Askaig route are represented by **Viewpoint 12** (**Figure 5.48**, see **Volume 2b**).

5.6.195 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility for both routes commences at Dunskeig Bay to the north and continues for approximately 34 km for the route heading to Port Askaig and approximately 49 km for the route heading to Port Ellen.

5.6.196 From these routes the long, low form of the Kintyre peninsula provides the distant backdrop to easterly views. The turbines would be seen in oblique views on the distant horizon, introducing medium-scale additional elements that would occupy a medium lateral extent of views south east towards the peninsula and introducing sequential and in-combination visual effects with the other existing operational turbines already present within views.

5.6.197 Overall, during daylight hours, given the distance from the Proposed Development this would introduce a medium magnitude of change and a **moderate effect** that would be **not significant**.

5.6.198 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7** all four of the lit turbines would be visible. Due to the distance between the routes and the Proposed Development the lights would appear as very small red dots that would be barely perceptible at such distance.

5.6.199 With reference to **Figure 5.8** showing the turbine lighting intensity, the intensity of the lights would be greatly reduced due to the difference in elevation between the turbine lights and the distance from the routes. Overall, the magnitude of change during the hours of darkness is judged to be very low with effects considered to be **minor** and **not significant.**

Lochranza (Arran) – Claonaig (Kintyre)/Tarbert

5.6.200 Located over 18 km to the north east of the Proposed Development these routes link the Isle of Arran with the Kintyre peninsula and Tarbert.

5.6.201 With reference to **Figure 5.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, there is theoretical visibility across the whole crossing between Lochranza and Claonaig which is approximately 7.3 km and for an approximate 9.4 km section of the route between Lochranza and Tarbert, north of Lochranza. Up to all nine turbines would be visible in theory for approximately half of the crossing north west of Lochranza. For the remaining half of the crossing approaching Clonaig, ferry users would experience views of a limited number of turbines. Ferry users would experience views of up to all nine turbines over the 9.4 km section of the Lochranza to Tarbert route where theoretical visibility is predicted.

5.6.202 Referring to the hub height ZTV at **Figure 5.6**, there would be a limited number of hubs visible for the first half of the route from Lochranza and no hubs would be visible for the second half of the route on approaching Claonaig. A limited number of hubs would be visible over the 9.4 km section of the Lochranza to Tarbert route where theoretical visibility is predicted.

5.6.203 Ferry users would experience long-range, oblique views towards the Proposed Development. The proposed turbines would introduce small-scale additional elements that would occupy a small lateral extent of the view seen on the distant horizon. However, the proposed turbines would not introduce new features to the skyline, with existing operational turbines already present in views along the peninsula. Overall, during daylight hours, given the distance from the Proposed Development, it would introduce a low magnitude of change and a **moderate/minor effect** that would be **not significant**.

5.6.204 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 5.7** up to two lit turbines would be visible. Due to the distance between the route and the Proposed Development, the lights would appear as very small, faint red dots that would be barely perceptible at such distance.

5.6.205 With reference to **Figure 5.8** showing the turbine lighting intensity, the intensity of the lights would be greatly reduced due to the difference in

elevation between the turbine lights and the ferry routes and the distance. Overall, the magnitude of change during the hours of darkness is judged to be very low, resulting in **minor effects** that would be considered **not significant**.

Table 5.11 – Assessment of Effects on Ferry Routes

		Daylight Hours			Hours of Darkness		
Route	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Ardminish (Gigha) – Tayinloan (Kintyre)							
Approximate 4.5 km crossing of The Sound of Gigha	High	Medium	Moderate	**Significant**	Low	Moderate/ minor	Not significant
Kennacraig (Kintyre) – Port Askaig/Port Ellen (Islay)							
Approximate 34 km route to Port Askaig and 49 km to Port Ellen	High	Medium	Moderate	Not significant	Very low	Minor	Not significant
Lochranza (Arran) – Claonaig (Kintyre)/Tarbert							
Approximate 7.3 km route from Lochranza to Claonaig and approximate 9.4 km section of the route to Tarbert	High	Low	Moderate/ minor	Not significant	Very low	Minor	Not significant

Bold text indicates a significant effect

Effects on the West Kintyre Coast LLA

5.6.206 The West Kintyre Coast LLA extends along the western coastline of Kintyre. From the site access off the A83, it extends north for approximately 15.3 km to the mouth of West Loch Tarbert and south for approximately 19.1 km as far as Westport. It covers a long, narrow swathe of low-lying coastal plain within the detailed 20 km LVIA study area. Part of the application boundary for the Proposed Development overlaps the eastern edge of the West Kintyre (Coast) LLA.

5.6.207 In relation to development impact on LLAs, the Argyll and Bute Local Landscape Development Plan 2 (LDP2) states that the LLAs *"are important*

not only for their physical landforms and scenic value, but also for the environmental assets that they represent".

5.6.208 The West Kintyre (Coast) LLA comprises LCT 19 Coastal Plain and a long stretch of LCT 20 Rocky Mosaic, as defined in the ABLWECS. Regarding the perceptual qualities of LCT 19, ABLWECS states that "This landscape is managed and while the coastal edge has some naturalistic qualities, the proximity of settlement and the A83 limit the degree of seclusion experienced". In relation to visual amenity, it states that *"The A83 is aligned along the eastern boundary of this character type and offers elevated views across this open landscape and over the sea to the low island of Gigha and dramatic distant skyline of Jura"*. The open and exposed character of LCT 19 is contained to the west of the A83 by the low scarp slope of the adjacent LCT 20.

5.6.209 In relation to landscape values for the LLA, the ABLWECS states that *"Although there is no citation for this APQ [now referred to as LLA], its key qualities include the diverse landform and land cover of these settled loch and sea shores and scenic views to a backdrop of mountains seen across water*". Therefore, the primary focus of views from the LLA is towards the west, across the sea, across the Isle of Gigha towards the mountains of Jura, rather than inland towards the east, in the direction of the Proposed Development.

5.6.210 Susceptibility to wind farm development located in landscapes beyond the LLA is determined by a combination of its intervisibility with the surrounding landscapes and its key visual qualities. Wind farm development on Gigha, and particularly Jura, would affect the key views across the sea, and as illustrated by **Figure 5.29**, there is intervisibility with existing wind farms on Gigha. Susceptibility to wind farm development on the islands to the west of the LLA would therefore be considered to be higher as it would have a greater influence on the perception of the key qualities of the LLA.

5.6.211 However, wind farm development inland to the east of the LLA would not affect the key qualities to the same degree due to their being less intervisibility with the LLA. The susceptibility therefore to wind farm development to the east is considered medium.

5.6.212 The value of the LLA is assessed as high on account of its designation for its scenic value. Overall, the LLA is judged to have a medium high sensitivity.

5.6.213 There would be direct effects on a very localised part of the LLA due to the construction of the turning area to the immediate west of the A83 opposite the site entrance. This part of the LLA comprises improved pasture grassland, a very small part of which would be replaced by hardstanding to form the turning area. This would introduce a medium magnitude of change and result in a **moderate significant effect** within the site boundary.

5.6.214 All other effects would be indirect and would result from changes to views landward from the LLA.

5.6.215 With reference to **Figure 5.11** showing landscape designations within 20 km of the Proposed Development overlaid with the blade tip ZTV, there is extensive theoretical visibility to the north and west of the site access from the A83 within approximately 5 km of the Proposed Development. This is represented by Viewpoints 3 and 4, with greater theoretical visibility of turbine hubs with greater distance to the north west towards Rhunahaorine Point where the greater distance from the hills to the east of the LLA reduces the available landform screening. This would introduce a medium magnitude of change and result in a moderate significant effect on this part of the LLA. These effects would also be experienced by people travelling on the Gigha to Tayinloan ferry who would approach the LLA from the west.

5.6.216 To the south of the site access from the A83, theoretical visibility is much more limited within approximately 5 km due to the degree of screening provided by the landform to the immediate east of the LLA. In this part of the LLA, the magnitude of change would reduce to low, with effects considered to be no greater than **moderate/minor** which would be considered **not significant**.

5.6.217 Further south, where some views are available between approximately 7 and 8.5 km to the south west, as represented by Viewpoint 7, due to the level of intervening screening provided by intervening tree cover on the hills to the east of the A83, the Proposed Development would introduce no

greater than a very low magnitude of change and result in a **minor effect** that would be considered **not significant**.

5.6.218 Beyond approximately 5 km to the north and 8.5 km to the south of the Proposed Development, there is no further theoretical visibility and therefore no further effects on the LLA.

5.6.219 While some very localised direct significant effects would occur within the LLA, the remaining effects would be indirect, with indirect significant effects experienced within approximately 5 km to the north and west of the site access. These effects would be experienced in easterly views from the LLA in the opposite direction to the key views from the LLA.

5.6.220 Overall, it is not considered that the addition of the Proposed Development would be such as to prevent an understanding or appreciation of the underlying landscape of the LLA or its special qualities.

5.7 Mitigation

5.7.1 As discussed in best practice guidance for LVIA undertaken as part of EIA (GLVIA3), mitigation measures may include:

- avoidance of effects;
- reduction in magnitude of effects; and
- compensation for effects (which may include enhancements to offset any adverse effects).

5.7.2 The primary mitigation adopted in relation to the Proposed Development is embedded within the design of the Proposed Development and relates to the consideration that was given to avoiding and minimising landscape and visual effects during the evolution of the Proposed Development layout. This is sometimes referred to as ‘mitigation by design’. A detailed discussion of the design evolution and the iterative process underpinning it is provided in **Chapter 3** of this EIAR. Design evolution is summarised below, in so far as landscape and visual matters have influenced the Proposed Development.

5.7.3 Based on general good practice design principles (as set out in NatureScot guidelines) and an analysis of site-specific opportunities and constraints, the wind farm layout has evolved to take into consideration a number of

landscape and visual constraints whilst maintaining an optimal development.

5.7.4 A design rationale has been adopted to avoid inconsistent turbine spacing, outliers or excessive overlapping turbines to minimise visual confusion and ensure a balanced / compact array from key views in the local landscape.

5.7.5 Appropriate offsets from all properties and settlements, have been maintained to ensure that no property would experience an overbearing visual impact such that it would become an unattractive place to live, with no properties located within 1.8km of a proposed turbine.

5.7.6 The above principles have been applied as a number of iterations to the design. Taking all other engineering and environmental constraints into account, the final layout of the turbines on site was specifically designed to achieve a balanced array of turbines when viewed from the surrounding landscape.

5.7.7 In considering the layout of other structures and ancillary features of the Proposed Development, the position of the substation, construction compound and borrow pits are located so as to minimise their influence on the surrounding area.

5.7.8 The turbines themselves will be painted an off-white colour with a low reflectivity semi-matt finish (or similar as agreed with Argyll and Bute Council). Such a finish is widely regarded to be the least intrusive in the landscape when seen against the sky in a host of weather conditions typically experienced within the UK.

5.7.9 Mitigation of visible turbine aviation lighting has been designed into the scheme by adopting a reduced visible aviation lighting scheme where only a limited number of turbines are lit (T3, T6, T8 and T9). Visibility sensors would be installed on relevant turbines to measure the prevailing atmospheric conditions and visibility range. Should atmospheric conditions mean that visibility from the turbines within the site is greater than 5 km from the Proposed Development, CAA policy permits lights to operate in a lower intensity mode, being a minimum of 10% of their capable illumination. Therefore, the 2,000 cd steady state lights would operate at 200 cd. However, if visibility is restricted to 5 km or less, the lights would operate at 2,000 cd.

5.7.10 Additionally, the inherent directional intensity of 2,000 cd lights can be used to reduce vertical downwards lighting impacts at elevations less than -1° degree vertical angle from the horizontal plane from the aviation light. By ensuring the lights installed comply with the (International Civil Aviation Organization) ICAO recommendations, it is possible to attenuate the vertical downwards light to a level that reduces the visual impact from receptors at ground levels below the lights. Implementing the ICAO recommendations, at -1 degrees the aviation lights should only be 1,125 cd and at -10 degrees should only be 75cd, when visibility is greater than 5 km.

5.7.11 These measures are proposed as embedded mitigation. They are likely to reduce the magnitude of visual effects particularly for distant receptors, however this feature will not remove visibility of aviation lighting completely for any nearby receptors.

5.7.12 In the long term, when the Proposed Development is decommissioned, the turbines would be removed from site, and the hard-standings would be restored in accordance with a restoration plan to be approved by the local planning authority.

5.8 Assessment of Residual Effects

5.8.1 Best practice for EIA in general terms requires that the significance of potential effects be assessed, mitigation proposals identified and the residual effect (with mitigation in place) then re-assessed to demonstrate the effectiveness of the mitigation proposed.

5.8.2 In the case of LVIA for wind farms this presents two interrelated problems:

- Potential effects cannot be meaningfully assessed in the absence of an assumed layout; and
- Landscape and visual mitigation principally focus on the refinement of the site layout (‘mitigation by design’).

5.8.3 The residual landscape and visual effects have been assessed as a result of the primary mitigation embedded within the design of the Proposed Development, relating to avoiding and minimising landscape and visual effects during the evolution of the Proposed Development layout. Therefore, the residual landscape and visual effects are considered the same as those assessed in the main part of the LVIA.

5.9 Assessment of Cumulative Effects

5.9.1 For the cumulative assessment, consideration was initially given to a 60 km radius from the Site, as recommended by NatureScot best practice guidance. Following this, all other wind energy developments that are operational, under construction, consented, subject to a valid full planning application, or a valid Scoping Request within 35 km of the Proposed Development were identified and reviewed as part of the cumulative baseline. It is acknowledged that this list is constantly evolving and therefore, the 1st of May 2024 was used as an effective 'cut-off' date after which no further research was undertaken on the evolving status of wind energy development in the study area, and the cumulative Landscape and visual Assessment (CLVIA) reflects the status of each wind farm at the time of this date.

5.9.2 In order that the assessment remains focused on those schemes which have the greatest potential to give rise to significant cumulative effects with the Proposed Development, it was deemed appropriate to focus the assessment on a detailed 20 km area from the Proposed Development. It was also deemed appropriate to scope out any turbines under 50 m to tip (with the exception of the turbines on Gigha), or any turbines between 50 m and 80 m to tip which lie over 10 km from the nearest proposed turbine. Schemes that are at the scoping or pre-scoping stage are considered separately due to the uncertainty that these schemes will come forward and the lack of adequate information about project details. This is in accordance with the approach advocated in GLVIA3.

5.9.3 The cumulative sites within the 20 km detailed study area are illustrated on **Figure 5.27**. At the time of preparing this LVIA, there were 18 other wind farms within the detailed 20 km cumulative study area which were either operational, under construction, or in planning (**Table 5.12**).

Table 5.12 Other Wind Farms within 20 km of the Proposed Development

Site	Blade Tip Height (m)	Number of Turbines	Distance and Direction
Operational			
Auchadaduie	100	3	7 km south
Beinn An Tuirc	62.5	46	7 km south-east

Site	Blade Tip Height (m)	Number of Turbines	Distance and Direction
Beinn An Tuirc Extension	100	19	8 km south-east
Beinn An Tuirc Phase 3	126	19	12 km south-east
Blary Hill	110	14	6 km south
Cour	110	10	6 km north-east
Deucheran Hill	93	9	3 km east
Freasdail	100	11	16 km north-east
Gigha	43.5	3	8 km west
Gigha Extension	54	1	8 km west
Tangy	75	15	15 km south
Tangy Extension (also known as Tangy II)	75	7	15 km south
Consented or Under Construction			
Airigh	149.5	14	20 km north
Clachaig Glen*	126.5	14	1 km south
Eascairt	100	13	13 km north-east
High Constellation	149.9	10	7 km north-east
Tangy Repowering	125	16 (repowering of both Tangy 1 and the Extension i.e. 22 down to 16)	15 km south
In Planning			
Clachaig Glen*	185/200	12	1 km south

** Note - Clachaig Glen is subject to a revised application which would supersede the consented scheme. As the revised application is for taller turbines than the consented scheme, this cumulative assessment focuses on the revised application only as a 'worst-case' scenario.*

5.9.4 For the avoidance of doubt and to reiterate the methodology adopted in **Technical Appendix 5.1**, the baseline against which the solus effects of the Proposed Development has been assessed includes all operational wind farms. An assessment of the Proposed Development with consideration of other operational wind farms has already therefore been presented in the main section of this LVIA.

5.9.5 The primary purpose of the cumulative impact assessment is therefore to consider the additional effects that might arise as a result of the Proposed Development if the other consented and in planning (awaiting determination) schemes were also operational. In addition, this cumulative assessment also includes a further consideration of the overall totality of the effect, when the Proposed Development is considered alongside the other operational or proposed schemes across the study area.

5.9.6 The baseline in the cumulative impact assessment is therefore extended to consider other schemes that are not yet present in the landscape but are at various stages in the planning process. Two scenarios are generally considered which reflect the different degrees of certainty that these schemes will be constructed:

- Scenario 1 assumes that other consented (but as yet unbuilt) wind farms are operational;
- Scenario 2 extends this further to assume that all schemes in planning are also operational. In reality, it is possible that other schemes that are in planning may not be approved and constructed but this scenario assumes planning schemes are operational as this presents the 'worst case'.

5.9.7 As noted above, the Clachaig Glen scheme is subject to a revised application which would supersede the consented scheme. As the revised Clachaig Glen application is for taller turbines than the consented scheme, this cumulative assessment focuses on the revised application only. The assessment of the Clachaig Glen scheme is therefore set out only in Scenario 2.

Cumulative ZTVs and Wireframes

5.9.8 Cumulative ZTVs (CZTVs) have been produced to illustrate the theoretical visibility of various other wind farms and combinations of wind farms with the Proposed Development.

5.9.9 It should be reiterated that ZTVs imply a much greater geographical extent of influence on the landscape and views of it than would actually be the case. It therefore follows that the cumulative ZTVs also exaggerate the actual impacts of the turbines on landscape character

and visual amenity as they do not take account of vegetation or buildings in the landscape, which may restrict the nature and extent of views.

5.9.10 Cumulative ZTVs have been produced for the following combinations of existing, consented and other wind farm sites in planning:

Operational

- Deucheran Hill and Cour (Figure 5.28)
- Gigha and Gigha Extension (Figure 5.29)
- Blary Hill, Auchadaduie, Beinn An Tuirc, Beinn An Tuirc Extension and Beinn An Tuirc Phase 3 (Figure 5.30)
- Freasdail (Figure 5.31)
- Tangy and Tangy Extension (Tangy II) (Figure 5.32)

Consented

- High Constellation and Eascairt (**Figure 5.33**)
- Tangy Repowering (**Figure 5.34**)
- Airigh (**Figure 5.35**)

In Planning

- Clachaig Glen (**Figure 5.36**)

Cumulative Effects on Landscape Character

5.9.11 It is acknowledged that wherever more than one wind farm is visible at any given location in the landscape, there will be a greater overall or cumulative effect on landscape character than if just one wind farm was visible in the landscape.

5.9.12 However, it is also noted that in any given landscape where turbines are already present, the additional effect on landscape character of introducing further turbines may not be as significant as the initial introduction of turbines. Furthermore, in general, the greater the number of turbines in the baseline landscape the less significant the addition of further turbines may be in landscape character terms as the landscape will be more heavily characterised by turbines in the baseline situation.

5.9.13 It has been assessed in the assessment of the solus effects of the Proposed Development set out earlier in this chapter that there would be some limited significant effects on landscape character as a result of the

Proposed Development. The purpose of this section of the cumulative assessment is therefore to identify whether there would be any change to the assessments of significance previously set out in relation to the Proposed Development, once the other wind turbines which are not already operational are considered to form part of the baseline landscape.

5.9.14 Generally speaking, such additional cumulative effects will arise when the addition of the Proposed Development to the baseline results in an increase in effects, when viewed in combination with the other wind turbines forming part of the baseline landscape.

Cumulative Scenario One – Other Consented schemes are also considered to be operational

5.9.15 In this cumulative scenario (where other consented schemes are also considered to be operational) there would be four additional schemes: Airigh, Eascairt, High Constellation and Tangy Repowering (noting that Clachaig Glen is addressed separately in cumulative scenario two). Three of the schemes are located to the north of the site and one to the south.

5.9.16 High Constellation is the closest of the other consented schemes and lies around 7 km to the north-east of the site, slightly closer to the east of the peninsula, but in the same upland landscape. Eascairt also lies further to the north-east along the peninsula, beyond High Constellation, at a distance of around 13 km. The cumulative ZTV prepared for the schemes (**Figure 5.33**) illustrates the potential for visibility of the Proposed Development with one or other of the schemes from parts of the landscape, primarily to the north of the site and largely from more elevated areas. Combined visibility would also arise from the western coastline of Arran. The cumulative wirelines included with the visualisations illustrate the relationship between the sites and show that in reality much of the theoretical visibility shown on the CZTV for would be no more than blade tips, with greater visibility seen in only a small number of viewpoints (e.g. Viewpoints 10, 16 and 17). There would nonetheless be potential for cumulative effects to arise within LCT 6 Upland Forest Moor Mosaic in that part of the landscape which lies between the Proposed Development and Eascairt. There would also be increased visibility of turbines within that part of LCT 1b Arran Raised

Beach Coast which covers the western coastline of Arran, to the east of the Proposed Development and LCT 21a Arran Granitic Uplands.

5.9.17 In LCT 6, the main assessment has identified that there would already be a significant effect on landscape character within approximately 5.7 km to the north east as a result of the Proposed Development. Thereafter the High Constellation scheme would also give rise to localised significant effects within LCT 6, but there would be no additional significant cumulative effects. Further to the north-east, Eascairt would also give rise to localised significant effects within LCT 6, but again there would be no additional significant cumulative effects as a result of the Proposed Development and Eascairt, noting the 13km distance between the two schemes.

5.9.18 In LCT 1b and LCT 21a the main assessment has identified that there would be minor effects as a result of the Proposed Development. Both High Constellation and Eascairt would lie closer to these Arran landscapes and would themselves give rise to some degree of impact to landscape character. However, as illustrated in the visualisations for VP10, the High Constellation scheme would lie adjacent to the existing Cour Wind Farm and serve to consolidate views of turbines in the same part of the landscape in which they can already be seen in views from Arran. Overall, there would be no significant cumulative effects were the proposed Eascairt and High Constellation schemes also to be included in the baseline landscape. Indeed, the presence of these turbines would serve to reduce the effects of the introduction of the Proposed Development turbines, as there would already be further views of wind energy in closer proximity to Arran than the Proposed Development, which formed part of the character of LCT 1b and LCT 21a.

5.9.19 The consented Tangy Repowering scheme lies to the south, at a distance of approximately 15 km. It lies within an area where there would be very little potential for visibility of the Proposed Development and there is therefore relatively limited potential for cumulative effects to arise between the two schemes. This is illustrated with reference to the cumulative ZTV prepared for the scheme (**Figure 5.34).** Some visibility of the two schemes may be available in longer distance views e.g. from VP13, however, noting the 15 km distance between the two schemes it is not considered that there would be any change to the findings of the main

assessment of effects on character set out earlier in the chapter were the Tangy Repowering scheme also to be included in the baseline landscape.

5.9.20 The consented Airigh scheme lies to the north, at a distance of approximately 20 km. As illustrated with reference to the cumulative ZTV prepared for the scheme (**Figure 5.35**), there would be very little potential for combined visibility of the Proposed Development and Airigh, with the majority of views restricted to elevated locations. Some visibility of the two schemes may be available in longer distance views e.g. from VP5, however noting the 20 km distance between the two schemes it is not considered that there would be any change to the findings of the main assessment of effects on character set out earlier in the chapter were the Airigh scheme also to be included in the baseline landscape.

Cumulative Scenario Two – Other in-planning schemes are also considered to be operational

5.9.21 In this cumulative scenario (where other schemes in planning are also considered to be consented and operational) there would be one further additional scheme, Clachaig Glen, located around 1 km to the south of the site.

5.9.22 The cumulative ZTV prepared for the scheme (Figure 5.36) illustrates the potential for visibility of the Proposed Development with Clachaig Glen from large parts of the landscape. The cumulative wirelines included with the visualisations illustrate the relationship between the sites and show that in the majority of views, both schemes would be seen simultaneously. There would therefore be potential for cumulative effects to arise within LCT 6 in the same parts of the landscape where the site would be visible. There would also be increased visibility of turbines within LCT 19 Coastal Plain, LCT 20 Rocky Mosaic, LCT 22 Coastal Parallel Ridges and on Arran in LCT 1b and LCT 21a.

5.9.23 In LCT 6, the main assessment has identified that there would already be a significant localised effect on landscape character as a result of the Proposed Development. If Clachaig Glen were already in the baseline landscape the Proposed Development turbines would largely serve to consolidate significant effects within the same part of the landscape, albeit that the collective effect of the two schemes would be greater than Clachaig Glen in isolation.

5.9.24 In LCT 19 Coastal Plain and LCT 20 Rocky Mosaic, views of the Proposed Development would be relatively limited, with no significant effects on landscape character identified. If Clachaig Glen were already in the baseline landscape the potential for views of turbines from these areas would increase, with VPs 3 and 4 illustrating how within LCT 19 in particular the Proposed Development turbines would be seen to increase the extent of the horizontal angle of view which would include turbines. A localised significant cumulative effect would arise on LCT 19 Coastal Plain as a result of the effect increasing from moderate to moderate/major.

5.9.25 In LCT 22 Coastal Parallel Ridges on Gigha, the main assessment identified a moderate, non-significant effect on landscape character. If Clachaig Glen were already in the baseline landscape the potential for views of turbines from the area would increase, with VPs 6 and 8 illustrating how the Proposed Development turbines would be seen to increase the extent of the horizontal angle of view which would include turbines. A localised significant cumulative effect would arise on LCT 22 Coastal Parallel Ridges as a result of the effect increasing from moderate to moderate/major.

5.9.26 For LCT 1b and LCT 21a on Arran, the main assessment identified a minor effect on landscape character. If Clachaig Glen were already in the baseline landscape the potential for views of turbines from these areas would increase, with VPs 10 and 16 illustrating how the Proposed Development turbines would be seen to increase the extent of the horizontal angle of view which would include turbines. However, due to the distance between the sites and Arran and the presence of other turbines already in the view, whilst there would be some additional cumulative effects, these would not be significant.

Totality of the Combined Effect of All Schemes, including the other operational schemes

5.9.27 Consideration has also been given to the overall totality of the effect, when the Proposed Development is considered alongside the other operational, consented and proposed schemes.

5.9.28 The closest operational scheme to the Proposed Development is the Deucheran Hill scheme of nine turbines around 3 km to the east. The

Cour scheme of 10 turbines lies slightly further from the site at a distance of 6 km to the north-east. The cumulative ZTV prepared for the schemes (**Figure 5.28**) illustrates the potential for visibility of the Proposed Development with one or other of the schemes from parts of the landscape, generally the higher ground towards the centre of the peninsula. The two schemes therefore serve to add wind energy to the existing characteristics of the landscape within the central part of LCT 6 Upland Forest Moor Mosaic.

5.9.29 The Gigha and Gigha Extension turbines are located on the island of Gigha which is located to the west of the Kintyre Peninsula, at a distance of 8 km from the site. The cumulative ZTV prepared for the schemes (**Figure 5.29**) illustrates the potential for visibility of the Proposed Development with the Gigha turbines from much of the island, as well as parts of the Kintyre Peninsula.

5.9.30 The Blary Hill, Auchadaduie, Beinn An Tuirc, Beinn An Tuirc Extension and Beinn An Tuirc Phase 3 turbines are located in the same tract of the landscape to the south of the site, at a distance of between 6 km and 12 km. Collectively they have a notable effect on the character of the landscape in that area, however the cumulative ZTV prepared for the schemes (**Figure 5.30**) illustrates that combined visibility with the proposed development would be largely limited to tracts of more elevated landscape.

5.9.31 The Freasdail scheme lies 16 km to the north-east of the Proposed Development within an area where there would be very little potential for visibility of the Proposed Development and there is therefore limited potential for cumulative effects to arise between the two schemes. This is illustrated with reference to the cumulative ZTV prepared for the scheme (**Figure 5.31**).

5.9.32 The Tangy and Tangy Extension turbines lie 15 km to the south of the Proposed Development and have limited intervisibility with the Proposed Development, as illustrated with reference to the cumulative ZTV prepared for the schemes (**Figure 5.32**).

5.9.33 Overall, collectively the operational and proposed schemes would serve to result in wind energy being seen as a periodic feature across the wider landscape of the Kintyre Peninsula in all directions surrounding the site,

with pockets of significant effects on the landscape character of LCT 6 and the surrounding LCTs. The addition of the Proposed Development would serve to reinforce this pattern.

Cumulative Effects on Views and Visual Amenity

5.9.34 As with cumulative landscape character effects, it is acknowledged that the addition of the Proposed Development to the baseline has the potential to result in an increase in effects, when viewed in combination with other wind turbines forming part of the visual baseline.

5.9.35 However, it is also noted that in any given view where turbines are already present, the additional effect on visual amenity of introducing further turbines may not have as greater effect as the initial introduction of turbines. Furthermore, in general the greater the number of turbines in the baseline view, the less significant the addition of further turbines may be. It is also recognised however that a slight additional effect on top of an existing effect, which at present is not quite significant, could in theory tip the balance such that the overall effect is deemed to be significant. Again, generally speaking, such additional cumulative effects will arise where a visual receptor would now lie between a cumulative wind farm in one direction and the Proposed Development in a different direction, such that the visibility of turbines as a result of the addition of the Proposed Development would become notable in multiple, usually directly opposite, directions.

Cumulative 'in combination' visual effects

5.9.36 An 'in combination' cumulative visual effect is the term used to refer to the situation where a viewer is able to see one or more further wind farms, in addition to the Proposed Development, whilst standing in the one location. These effects are either 'simultaneous', where the viewer can see the additional turbines in the same angle of view, or 'successive', where the view can see the additional turbines in a different angle of view by turning their head.

5.9.37 As set out in the main assessment, there are many locations where other existing wind turbines are seen in views from the landscape in and around the Proposed Development. In particular, the more elevated

viewpoints such as VP5 and VP10 on Arran have views of several existing schemes at various locations across the extent of the Kintyre Peninsula.

Cumulative Scenario One – Other in-planning schemes are also considered to be operational

5.9.38 In this cumulative scenario (where other consented schemes are also considered to be consented and operational) there would be four additional schemes: Airigh, Eascairt, High Constellation and Tangy Repowering (noting that Clachaig Glen is addressed separately in cumulative scenario two). Three of the schemes are located to the north of the site and one to the south.

5.9.39 High Constellation is the closest of the other consented schemes and lies around 7 km to the north-east of the site, slightly closer to the east of the peninsula, but in the same upland landscape. Eascairt also lies further to the north-east along the peninsula, beyond High Constellation, at a distance of around 13 km. The cumulative ZTV prepared for the schemes (**Figure 5.33**) illustrates the potential for visibility of the Proposed Development with one or other of the schemes from parts of the landscape, primarily to the north of the site and largely from more elevated areas. Combined visibility would also arise from the western coastline of Arran. The cumulative wirelines included with the visualisations illustrate the relationship between the sites and show that in reality much of the theoretical visibility shown on the CZTV for would be no more than blade tips, with greater visibility seen in only a small number of viewpoints (e.g. Viewpoints 10, 16 and 17). It is not considered there would be any change to the findings of the main assessment of effects on visual receptors, set out earlier in the chapter, were the High Constellation and Eascairt schemes also to be included in the baseline landscape.

5.9.40 The consented Tangy Repowering scheme lies to the south, at a distance of 15 km. It lies within an area where there would be very little potential for visibility of the Proposed Development and there is therefore relatively limited potential for cumulative effects to arise between the two schemes. This is illustrated with reference to the cumulative ZTV prepared for the scheme (**Figure 5.34).** Some visibility of the two schemes may be available in longer distance views e.g. from VP13, however, noting the 15

km distance between the two schemes it is not considered that there would be any change to the findings of the main assessment of effects on visual receptors set out earlier in the chapter were the Tangy Repowering scheme also to be included in the baseline landscape.

5.9.41 The consented Airigh scheme lies to the north, at a distance of 20 km. As illustrated with reference to the cumulative ZTV prepared for the scheme (Figure 5.35), there would be very little potential for combined visibility of the Proposed Development and Airigh, with the majority of views restricted to elevated locations. Some visibility of the two schemes may be available in longer distance views e.g. from VP5, however noting the 20 km distance between the two schemes it is not considered that there would be any change to the findings of the main assessment of effects on visual receptors set out earlier in the chapter were the Airigh scheme also to be included in the baseline landscape.

Cumulative Scenario Two – Other in-planning schemes are also considered to be operational

5.9.42 In this cumulative scenario (where other schemes in planning are also considered to be consented and operational) there would be one further additional scheme, Clachaig Glen, located around 1 km to the south of the site.

5.9.43 The cumulative ZTV prepared for the scheme (Figure 5.36) illustrates the potential for visibility of the Proposed Development with Clachaig Glen from large parts of the landscape. The cumulative wirelines included with the visualisations illustrate the relationship between the sites and show that in the majority of views, both schemes would be seen simultaneously.

5.9.44 The main assessment has identified that there would already be some significant localised effects on visual amenity as a result of the Proposed Development. If Clachaig Glen were already in the baseline landscape the Proposed Development turbines would largely serve to consolidate significant effects arising to the same visual receptors, albeit that the collective effect of the two schemes would be greater than Clachaig Glen in isolation.

5.9.45 In relation to settlements, the main assessment found that none of the settlements within 5 km (the Proposed Development and Tayinloan) would experience significant visual effects and this would remain the case should

Clachaig Glen also be in the baseline due to the limited potential for views of both schemes from Killean and Tayinloan. A significant effect was however identified for Ardminish on Gigha. VP6 represents this settlement and illustrates that with Clachaig Glen also present in the view, the extent of turbines in the horizontal angle of view would increase, which would further reinforce the significant effect identified for the Proposed Development turbines.

5.9.46 The main assessment also identified significant effects for a number of footpath routes, which would all for the most part also experience views of the Clachaig Glen turbines, should they form part of the baseline view [Core Path C094 – Tayinloan-Carradale East-West link, parts of the Kintyre Way (with the significant effects occurring over the same sections as Core Path C094) and Core Paths C095, C096, C539 on the Isle of Gigha]. This would further serve to reinforce the significant effects identified for the Proposed Development turbines, albeit the presence of turbines in relatively close proximity to the routes would already have been established by the Clachaig Glen turbines. No other footpath routes would however experience significant cumulative effects.

5.9.47 The assessment of roads found that receptors travelling along the A83 to the west of the site would not experience significant effects and this would remain the case if the Clachaig Glen turbines were in the baseline, as like the Proposed Development the turbines are set back from the route towards the centre of the peninsula. There would be some visibility of the two schemes together from the A83, but as illustrated by VP7, these views would be highly limited.

5.9.48 Receptors travelling on the Ardminish to Tayinloan ferry would also experience significant effects from the Proposed Development, which would be further reinforced were the Clachaig Glen turbines to be in the baseline. Travellers on the other ferry routes would have the potential for some views of both Clachaig Glen and the Proposed Development, but would continue to experience effects that would not be considered significant.

Cumulative 'sequential' effects

5.9.49 A 'sequential' cumulative visual effect is the term used to refer to the situation where a viewer is able to see one or more further wind farms in

addition to the Proposed Development, whilst travelling along a linear route. This could be either on foot, whilst walking on a footpath, or by bicycle or car along the public highway. The main assessment focussed on the following routes which it was identified had the potential to experience significant effects as a result of the Proposed Development and these were also used as the basis for the cumulative assessment:

- Kintyre Way;
- Arran Way;
- Core Paths:
  - Core Path C094 – Tayinloan-Carradale East-West link;
  - Core Path C293 – Clachaig Water circular, Muasdale;
  - Core Paths on the Isle of Gigha;
  - Core Path C534 – St Catherines Church and Poll More Bay, Gigha;
  - Core Path C304 – Glenbarr School route.
- A83;
- Ferry Routes:
  - Ardminish (Gigha) – Tayinloan (Kintyre) Ferry;
  - Kennacraig (Kintyre) – Port Askaig/Port Ellen (Islay) Ferry;
  - Lochranza (Arran) – Claonaig (Kintyre)/Tarbert Ferry.

5.9.50 The Kintyre Way runs between Tarbert and Macrihanish across seven stages. Theoretical visibility of the Proposed Development turbines across the route is intermittent, with the majority occurring between Tayinloan and Deucheran Hill where it follows the same route as Core Path C094 – Tayinloan-Carradale East-West link that crosses through the site. Along its length there are views of the existing turbines on the Kintyre Peninsula, with both the consented and proposed schemes also being visible from the route to varying degrees. The main assessment identified a significant effect on the route from the sections in closest proximity to the site and this would serve to reinforce the visibility of wind energy along the route as a whole. There would be no further significant cumulative effects in addition to those identified for the Proposed Development in its own right.

5.9.51 The Arran Way is a promoted walking route which passes around the western shores of the Isle of Arran, allowing walkers to experience views across Kilbrannan Sound to the Kintyre Peninsula. There is already some

visibility of existing turbines from the route, which would be further reinforced by the consented and proposed turbines. In that context the Proposed Development turbines would not be out of character and would not give rise to any significant sequential cumulative effects on users of the route by introducing views of turbines to a section from which they were not already visible.

5.9.52 The main assessment identified a significant effect on Core Path C094 – Tayinloan-Carradale East-West link, which passes through the site. This route would also have some views of other existing and proposed turbines, but to a much more limited extent than that of the Proposed Development. No further significant sequential cumulative effects on the route would therefore arise.

5.9.53 For the other nearby Core Paths [Core Paths C095, C096, C539 on the Isle of Gigha], the main assessment identified there would not be significant effects. The presence of the Clachaig Glen turbines would further reinforce views of turbines from these routes, alongside the Proposed Development but no new significant sequential cumulative effects would arise.

5.9.54 The assessment of roads found that receptors travelling along the A83 to the west of the site would not experience significant effects and this would remain the case with regard to potential sequential cumulative effects on the route. There would be some visibility of the Clachaig Glen turbines from the route, located immediately south of the site, but as illustrated by VP7, these views would be highly limited.

5.9.55 Receptors travelling on the Ardminish to Tayinloan ferry have limited potential for views of other schemes, other than Clachaig Glen (e.g. Blary Hill). However, the turbines would be seen in combined views together, rather than sequentially, so would not give rise to any additional sequential effects. Travellers on the other ferry routes would have the potential for some views of other turbines, but would not experience any significant sequential effects following the addition of the Proposed Development.

Totality of the Combined Effects of all schemes

5.9.56 Consideration has also been given to the overall totality of the cumulative visual effect when the Proposed Development is considered alongside the other operational and proposed schemes.

5.9.57 Collectively the operational and proposed schemes would serve to result in wind energy being seen as a periodic feature across the wider landscape of the Kintyre Peninsula in all directions surrounding the site, with significant effects to some visual receptors. The addition of the Proposed Development would serve to reinforce this pattern, particularly in combination with the proposed Clachaig Glen scheme.

Scoping Stage schemes

5.9.58 There are a number of potential wind energy developments which are at EIA Scoping stage within 20km of the Proposed Development. These are illustrated on Figure 5.27 and include developments known as Coalashee, Cnoc Breacam, Allt Domhain, West Torrisdale and Cnoc Buidhe. As noted previously, due to the uncertainty that these schemes will come forward and the lack of adequate final information about key project details (i.e. turbine heights/numbers), the schemes are not included in the detailed cumulative assessment. This is in accordance with the approach advocated in GLVIA3. It is acknowledged however that were some or all of these schemes to become operational, then the overall totality of the landscape character and visual effects of wind turbines on the Kintyre peninsula would increase.

5.9.59 The Coalashee scheme in particular lies in close proximity to the Proposed Development to the north and would serve to further reinforce the presence of wind energy in that part of the peninsula, along with the Clacaig Glen scheme, which lies to the other side of the Proposed Development.

5.9.60 A detailed assessment of the potential effects of each of the Scoping schemes would be provided within the EIAR of each development, if it were to progress to application stage. This would include for a cumulative assessment with the Proposed Development, to ensure that these potential effects are adequately addressed at the time when the exact details of the schemes which are currently at Scoping stage become clear.

5.10 Summary

5.10.1 This chapter presents the findings of the Landscape and Visual Impact Assessment (LVIA) and identifies the likely significant effects arising from the Proposed Development on landscape character and visual amenity. It has been informed by field visits carried out on separate occasions at different times of the year and by consultation undertaken with statutory consultees.

5.10.2 The existing landscape and visual baseline has been documented and is presented at **Section 5.5** and the assessment has been supported by figures (presented in **Volume 2b**) and visualisations produced to NatureScot Visualisation Standards that show representative views from locations consulted on at Scoping that illustrate existing and proposed views during daylight hours from all 17 LVIA viewpoints and views during dark sky hours from a select number of viewpoint locations (presented in **Volume 2b**).

5.10.3 The Proposed Development is located off of the A83, approximately 2.5 km east of Tayinloan, on the Kintyre Peninsula in the administrative area of Argyll and Bute Council. The extents of the site of the Proposed Development are on indicated on **Figure 1.2**. The site is centred on National Grid Reference (NGR) E 172624 / N 644941 and covers an area of approximately 1,052 hectares (ha) with wind turbines proposed to occupy upland plateau moor and conifer forest locally known as the Killean Estate. The site is currently predominately utilised for commercial forestry plantation and open rough grazing for livestock.

5.10.4 There are no national landscape designations covering the site. The nearest national landscape designation is the North Arran National Scenic Area (NSA) situated approximately 11.7 km to the east. The nearest locally designated landscape is the West Kintyre Coast Local Landscape Area (LLA) located approximately 1.7 km to the west. A very small part of the application boundary overlaps the eastern edge of this LLA and a proposed turning area would be located within this area opposite the entrance to the site access track to allow large vehicles sufficient space to turn on the site access track.

5.10.5 The Proposed Development would be sited on an undulating, upland plateau flanked by hillslopes with extensive forest plantation that limits

views of the Proposed Development from many of the more sensitive lower-lying coastal areas to the west and east of the upland plateau. The proposed turbines and associated infrastructure would be located within LCT 6 Upland Forest Moor Mosaic.

5.10.6 Appropriate offsets from all properties have been maintained to ensure that no property would experience an overbearing visual impact. Due to the height of the proposed turbines they would require visible aviation lights. A reduced aviation lighting scheme has been agreed with the Civil Aviation Authority (CAA) meaning that four of the nine proposed turbines (T3, T6, T8 and T9) would require to be lit with visible lights on their hubs. It has also been agreed with the CAA that intermediate tower lighting would not be required. Further mitigation has been designed into the scheme to reduce the intensity of the 2,000 cd steady state lights in certain atmospheric conditions by reducing their intensity and attenuating the amount of vertical downwards lighting in order to reduce the visual impact experienced by receptors below the lights.

5.10.7 As with almost any onshore wind farm development it is recognised that the Proposed Development would give rise to some localised significant effects on landscape character and visual amenity.

5.10.8 The Proposed Development would result in direct and significant effects on the part of the landscape character type within which the Proposed Development is located. Indirect and significant effects would extend to approximately 5.7 km to the north east, 5 km to the east and south east, 5 km to the south and 1.6 km to the west within LCT 6 Upland Forest Moor Mosaic.

5.10.9 In relation to visual effects, it is accepted that the Proposed Development would be visible from several nearby properties and settlements as well as parts of the surrounding road and footpath network, local ferry routes and the islands of Gigha and Arran.

5.10.10 It has been assessed that there would be significant visual effects experienced at six of the 17 representative viewpoints, as summarised above in **Table 5.6** during daylight hours and at three viewpoints during the hours of darkness.

5.10.11 In terms of the effects on the 12 residential properties within 2 km of a proposed turbine, one property is uninhabitable, eight would not

experience any theoretical visibility and two would experience very limited effects that would not be considered significant. It is concluded that when the experience from the remaining property is considered in the round, the effects would not result in an overbearing or overwhelming effect on visual amenity such that it would become an unattractive place in which to live.

5.10.12 In relation to settlements, the assessment found that none of the settlements within 5 km (Killean and Tayinloan) would experience significant visual effects during daylight or dark sky hours. Ardminish, located at between 5 and 10 km distance would experience significant visual effects during daylight hours and Pirnmill, located between 10 and 20 km from the Proposed Development would not experience significant effects during daylight hours or the hours of darkness.

5.10.13 The assessment of routes found that receptors would experience significant effects from parts of Core Path C094 – Tayinloan-Carradale East-West link, parts of the Kintyre Way (with the significant effects occurring over the same sections as Core Path C094) and Core Paths C095, C096, C539 on the Isle of Gigha.

5.10.14 The assessment of roads found that receptors travelling along the A83 to the west of the site would not experience significant effects. Receptors travelling on the Ardminish to Tayinloan Ferry would also experience significant effects during daylight hours but travellers on the other ferry routes would experience effects that would not be considered significant.

5.10.15 In terms of effects on the West Kintyre Coast LLA, the assessment found that there would be very localised significant effects in the location of the proposed turning area that overlaps the eastern edge of the LLA opposite the site entrance and indirect significant effects on views that would extend to approximately 5 km to the north and west but the addition of the Proposed Development would not undermine the understanding or appreciation of the underlying landscape of the LLA or its key qualities.

5.10.16 Regarding cumulative effects, it is acknowledged that wherever more than one wind farm is visible at any given location in the landscape, there will be a greater overall or cumulative effect on landscape character than if just one wind farm was visible in the landscape. Likewise, it is acknowledged that the more wind turbines that are constructed in any

given landscape, the greater the magnitude of overall (or combined) change to the landscape character.

5.10.17 The assessment of effects on the Special Landscape Qualities of the North Arran NSA (see **Technical Appendix 5.8**) found that of the two special qualities assessed in detail, they would experience no greater than a moderate level of effect during daylight hours and a minor moderate effect during daylight hours, neither of which would be considered significant and that effects that would occur would not be of such a scale to undermine the overall integrity of the NSA.

5.10.18 It is acknowledged that wherever more than one wind farm is visible at any given location in the landscape, there will be a greater overall or cumulative effect on landscape character and visual amenity than if just one wind farm was visible in the landscape. Likewise, it is acknowledged that the more wind turbines that are constructed in any given landscape, the greater the magnitude of overall (or combined) change to the landscape character or views.

5.10.19 At the time of preparing this LVIA, there were 18 other wind farms within the detailed 20 km cumulative study area which were either operational, under construction, or in planning. Of these, the only scheme which the Proposed Development would have the potential to give rise to significant cumulative effects in combination with is the Clachaig Glen Wind Farm, where a revised application has been submitted which would supersede the consented scheme. The cumulative wirelines included with the visualisations illustrate the relationship between the sites and show that in the majority of views, both schemes would be seen simultaneously.

5.10.20 Were Clachaig Glen included in the baseline landscape alongside the Proposed Development there would be the potential for additional localised significant cumulative effects on the landscape character of LCT 19 Coastal Plain and LCT 22 Coastal Parallel Ridges. The Clachaig Glen turbines would also reinforce the significant effects also identified for parts of LCT 6 and on visual receptors in close proximity to the site, including the settlement of Ardminish on Gigha, receptors travelling on the Ardminish to Tayinloan ferry and a short section of the Kintyre Way, which corresponds to Core Path C094 – Tayinloan-Carradale East-West link.

5.10.21 Consideration has also been given to the overall totality of the cumulative landscape and visual effects when the Proposed Development is considered alongside the other operational and proposed schemes. Collectively the operational and proposed schemes would serve to result in wind energy being seen as a periodic feature across the wider landscape of the Kintyre Peninsula in all directions surrounding the site, with significant effects to localised areas of landscape character and some visual receptors. The addition of the Proposed Development would serve to reinforce this pattern, particularly in combination with the proposed Clachaig Glen scheme.

5.10.22 It is important to acknowledge that localised significant effects on landscape character and visual amenity are inevitable as a result of commercial wind energy development anywhere in the UK. Whilst the LVIA identified some significant landscape and visual effects it is considered that the landscape has the capacity to accommodate the effects identified, particularly when the consented but as yet unbuilt wind farms in the surrounding landscape are taken into account.

5.10.23 Wind turbines give rise to a wide spectrum of opinions, ranging from strongly adverse to strongly positive, with a wide range of opinions lying somewhere between these two positions. Some people view wind turbines as incongruous or industrial structures whilst others view them as aesthetically pleasing, elegant structures and a positive response to climate change. In the case of the Proposed Development the turbines and associated ancillary development may be viewed by some as a symbol of continued progress by society towards a low carbon future.

5.10.24 However, in considering the effects of the Proposed Development, a precautionary approach has been adopted and it is therefore assumed that the effects identified will be adverse in nature even though it is recognised that for some people the impacts could be perceived to be beneficial.

5.10.25 There are no definitive quantifiable thresholds of acceptability in landscape and visual impact assessment. The identified effects on landscape character and visual amenity therefore need to be balanced against the other benefits of the Proposed Development in the overall planning balance.

[1] Landscape Institute and the Institute for Environmental Management and Assessment (2013). The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3). Routledge.

[2] Council of Europe (2000). Council of Europe Landscape Convention (ETS No.176). Available at: https://www.coe.int/en/web/conventions/full-list?module=treaty-detail&treatynum=176

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

[4] Argyll and Bute Council (2024), Local Development Plan 2. Available at: https://www.argyll-bute.gov.uk/planning-and-building/planning-policy/local-development-plan-2

[5] The Scottish Government. Crystal Rig IV Wind Farm (WIND-140-8). Reporter's Decision. 22 January 2021. Available at: https://www.dpea.scotland.gov.uk/Document.aspx?id=732056

[6] Argyll and Bute Wind Energy Capacity Study (2017). Available at: https://www.argyll-bute.gov.uk/planning-and-building/planning-policy/landscape-wind-energy-capacity-study

[7] NatureScot (2022). Landscape Sensitivity Assessment Guidance. (Methodology). Available at: https://www.nature.scot/doc/landscape-sensitivity-assessment-guidance-methodology

[8] North Ayrshire Council (2018). North Ayrshire Landscape Wind Energy Capacity Study. Final Report – October 2018. Available from North Ayrshire Council.

[9] NatureScot Website. Landscape sensitivity studies. Available at: https://www.nature.scot/professional-advice/landscape/landscape-tools-and-techniques/landscape-sensitivity-studies

[10] Civil Aviation Authority. Civil Aviation Publication (CAP) 764 Policy and Guidance on Wind Turbines Version 6, Feb 2016. Available at: http://publicapps.caa.co.uk/modalapplication.aspx?appid=11&catid=1&id=5609&mode=detail&pagetype=65

11 Rothes III Wind Farm Inquiry (WIN-300-5). CD15.2.2. Inquiry Report on Light Propagation from the Aviation Warning Lights at the proposed Rothes III Wind Farm Development. Professor Phillip Best (July 2020).