Vale of Leven Wind Farm Limited

Vale of Leven Wind Farm

Environmental Impact Assessment Report (Volume 1)

Chapter 5 – Landscape and Visual Impact Assessment

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CONTENTS

TABLES

5 LANDSCAPE AND VISUAL ASSESSMENT

5.1 Introduction

5.1.1 This Chapter of the EIA Report contains the Landscape and Visual Impact Assessment (LVIA) for the Vale of Leven Wind Farm (the Proposed Development). The LVIA considers the effects on the landscape and visual resource of the Site and the wider Study Area, including effects on landscape elements, landscape character, views and visual amenity, and cumulative effects.

5.1.2 This LVIA has been prepared by landscape architects at Optimised Environments Limited (OPEN), directed by James Welch FLI BA Hons, Chartered Landscape Architect and Director at OPEN. OPEN is a registered practice with the Landscape Institute.

5.1.3 This Chapter is supported by the following Technical Appendices and Figures:

- **Technical Appendix 5.1: LVIA Methodology** (**Volume 3**);
- **Technical Appendix 5.2: Residential Visual Amenity Assessment** (**Volume 3**);
- **Figures 5.1 – 5.15** plan figures (**Volume 2a**); and
- **Figures 5.16 – 5.48** Visualisations for Viewpoint 1 – Viewpoint 33, (**Volume 2b**).

5.2 Scope and Methodology

5.2.1 The assessment covers the construction and operational phases of the Proposed Development. The Proposed Development consists of up to 10 wind turbines with a maximum blade tip height of up to 250 m and associated infrastructure.

Study Area

5.2.2 The initial step in the LVIA is the establishment of the Study Area. In accordance with NatureScot guidance[1], a study area with a radius of 45 km from the nearest wind turbine in the Proposed Development has been utilised as shown in **Figure 5.1**. Mapping of the various characteristics and features of the Study Area that are relevant to the assessment (i.e. landscape character types and landscape-planning designations) and Zone of Theoretical Visibility (ZTV) mapping is presented with both 45 km and 20 km Study Areas in order that the wider context can be seen at a broad scale while the local context can also be clearly seen.

Desk Study and Field Survey

5.2.3 ZTV mapping that shows theoretical blade tip and hub height visibility of the Proposed Development turbines has been generated using terrain data for the 45 km Study Area. The blade tip and hub height ZTVs are shown on **Figure 5.7a-d** and **Figure 5.8a-d** respectively. The ZTV is used to identify the receptors that are likely to be most affected by the Proposed Development and also to filter out those that will not require detailed consideration due to lack of, or very limited, theoretical visibility.

[1] SNH (2017). Visual Representation of Wind Farms, Version 2.2

5.2.4 To inform the assessment, site visits have been made to various locations within the Study Area including, but not restricted to, representative viewpoints (the locations of which are shown on **Figure 5.7a-d** and **Figure 5.8a-d**) by OPEN's assessment team between July 2022 – April 2023.

Categories of Effects

5.2.5 In this assessment, potential effects on the landscape and visual resource are grouped into five categories.

5.2.6 **Effects on Physical Elements**: are restricted to the area within the Site and are direct effects on the existing landscape fabric, such as the removal of forestry and alteration to ground cover. This category of effects is made up of landscape elements, which are the components of the landscape, such as moorland, that may be directly and physically affected by the Proposed Development.

5.2.7 **Effects on Landscape Character**: landscape character is the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and the way that this pattern is perceived. Effects on landscape character arise either through the introduction of new elements that physically alter this pattern of elements, or through visibility of the Proposed Development, which may alter the way in which the pattern of elements is perceived. This category of effects is made up of landscape character receptors, which fall into two groups; landscape character types and landscape-related designated areas.

5.2.8 **Effects on Wild Land Areas**: where it is relevant to include an assessment of effects on Wild Land Areas (WLAs) this is carried out in accordance with NatureScot guidance, which provides a methodology. A WLA assessment has not been included in this LVIA due to the lack of potential for significant effects on WLAs.

5.2.9 **Effects on Views**: the assessment of effects on views is an assessment of how the introduction of the Proposed Development would affect views throughout the Study Area (including at night-time). The assessment of effects on views is carried out in three parts:

- the effects that the Proposed Development would have on a series of viewpoints;
- the effects that the Proposed Development would have on views from principal visual receptors, which include relevant settlements and routes throughout the Study Area; and
- night-time effects of visible aviation lighting on views.

5.2.10 **Cumulative Effects**: arise where the Study Areas for two or more wind farms overlap so that both of the wind farms are experienced at proximity where they may have a greater incremental effect, or where wind farms may combine to have a sequential effect.

Criteria for the Assessment Effects

5.2.11 The detailed LVIA methodology for the assessment of effects is described in **Technical Appendix 5.1** with a summary provided in the following sections.

Significance of Effects

5.2.12 The broad principles used in the assessment of significance of the five categories of effects are the same (other than the assessment of effects on WLAs) and are described

below. The detailed methodology for the assessment of significance does, however, vary, and the specific criteria used are described in **Technical Appendix 5.1**.

5.2.13 The objective of the assessment is to predict the likely significant effects that the Proposed Development would have on the landscape and visual resource. The EIA Regulations require that the direct and indirect significant effects of the Proposed Development are identified, described and assessed, and therefore the LVIA effects are assessed to be either significant or not significant. The LVIA does not define intermediate levels of significance as the EIA Regulations do not provide for these. GLVIA3[2] also provides guidance on this, noting that (paragraphs 3.32 and 3.33):

"LVIAs should always distinguish clearly between what are considered to be the significant and non-significant effects…it is not essential to establish a series of thresholds for different levels of significance of landscape and visual effects, provided that it is made clear whether or not they are considered significant."

5.2.14 The significance of effects is assessed through a combination of the sensitivity of the landscape receptor, visual receptor or view and the magnitude of change that would result from the addition of the Proposed Development. While this methodology is not reliant on the use of a matrix to arrive at the conclusion of a significant or not significant effect, a matrix is included below in Table 5.1 to illustrate how combinations of sensitivity and magnitude of change can lead to levels of effects and significant/not significant effects.

[2] Landscape Institute and IEMA (2013). Guidelines for Landscape and Visual Impact Assessment: Third Edition (GLVIA3). Routledge

Table 5.1: Significance of Effect

	Magnitude of Change						
Sensitivity		High	Medium-High	Medium	Medium-Low	Low	Negligible
	High	Major Significant	Major Significant	Major/ moderate Significant	Moderate Significant or Not Significant	Moderate/ minor Not Significant	Minor Not Significant
	Medium-High	Major Significant	Major/ moderate Significant	Major/ Moderate Significant	Moderate Significant or Not Significant	Moderate/ minor Not Significant	Minor Not Significant
	Medium	Major/ moderate Significant	Major/ Moderate Significant	Moderate Significant or Not Significant	Moderate/ minor Not Significant	Minor Not Significant	Minor Not Significant
	Medium-Low	Moderate Significant or Not Significant	Moderate Significant or Not Significant	Moderate Significant or Not Significant	Minor Not Significant	Minor Not Significant	Negligible Not Significant
	Low	Moderate Significant or Not Significant	Moderate/ minor Not Significant	Minor Not Significant	Minor Not Significant	Negligible Not Significant	Negligible Not Significant

5.2.15 Effects with a level of 'major' or 'major/moderate' are considered to be significant, while effects with a 'moderate' level may be significant or not significant, subject to the assessors' professional judgement and depending on the specific factors that arise at a particular landscape or visual receptor. In accordance with GLVIA3, experienced professional judgement is applied to the assessment of all effects and reasoned justification is presented in respect of the findings of each case. Effects assessed as being 'moderate/minor', 'minor' or 'negligible' are considered to be not significant.

5.2.16 A significant effect occurs where the Proposed Development would provide one of the defining influences on a landscape element, landscape character receptor or view. A not significant effect occurs where the effect of the Proposed Development would not be material, and the baseline characteristics would continue to provide the definitive influences.

5.2.17 This assessment assumes clear weather and optimum viewing conditions. This means that effects that are assessed to be significant may be not significant in sub-optimal weather and associated viewing conditions.

Sensitivity

5.2.18 Sensitivity is an expression of the ability of a landscape receptor or view to accommodate the Proposed Development and is determined through a combination of the value of the receptor and its susceptibility to the Proposed Development. The factors that determine these criteria are described in **Technical Appendix 5.1**. Levels of sensitivity (high, medium, and low) are applied in order that the judgement used in the process of

assessment is apparent. Intermediate levels (medium-high and medium-low) may also be applied where the particular combination of value and susceptibility results in an intermediate definition.

Magnitude of Change

5.2.19 Magnitude of change is an expression of the extent of the effect on landscape receptors and views that would result from the introduction of the Proposed Development. The magnitude of change is assessed in terms of a number of variables, including the size and scale of the impact and the geographical extent of the affected area. The factors that determine these criteria are described in **Technical Appendix 5.1**. Levels of magnitude of change (high, medium, low and negligible) are applied in order that the judgement used in the process of assessment is apparent. Intermediate levels (medium-high and medium-low) may also be applied where the particular combination of variables results in an intermediate definition.

Assessment of Cumulative Effects

5.2.20 The methodology used in the assessment of cumulative effects is described in **Technical Appendix 5.1**.

5.2.21 The outcome of the cumulative assessment is the identification of any significant cumulative effects that may arise from the addition of the Proposed Development to the cumulative situation, in accordance with NatureScot guidance[3], which states that cumulative assessment should "*focus on the likely significant impacts and those which are likely to influence the outcome of the consenting process*".

5.2.22 The cumulative assessment establishes whether or not the addition of the Proposed Development to various scenarios of other relevant existing and proposed wind farms would lead to wind farm development becoming one of the prevailing characteristics of a view or landscape. Significant cumulative effects arise where a 'wind farm landscape' is apparent as a result of the addition of the Proposed Development to other existing or proposed wind farms, so that the addition of the Proposed Development would result in wind turbines becoming one of the prevailing or key characteristics.

5.2.23 In relation to the significance of cumulative landscape effects, GLVIA3 notes (paragraph 7.28) that "*the most significant cumulative landscape effects are likely to be those that would give rise to changes in the landscape character of the study area of such an extent as to have major effects on its key characteristics and even, in some cases, to transform it into a different landscape type. This may be the case where the project being considered itself tips the balance through its additional effects.*"

5.2.24 GLVIA3 (paragraph 7.38) goes on to state the following in relation to the significance of cumulative visual effects:

"Higher levels of significance may arise from cumulative visual effects related to:

- *developments that are in closer proximity to the main project and are clearly visible together in views from the elected viewpoints;*

[3] NATURESCOT (2021). Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments

- *developments that are highly inter-visible, with overlapping ZTVs – even though the individual developments may be at some distance from the main project and from individual viewpoints, and when viewed individually not particularly significant, the overall combined cumulative effect on a viewer at a particular viewpoint may be more significant."*

5.2.25 It should be noted that if the Proposed Development itself is assessed to have a significant effect, it does not necessarily follow that the cumulative effect would also be significant.

5.2.26 The objective of the assessment of cumulative effects is to: "…*describe, visually represent and assess the ways in which a proposed wind farm would have additional impacts when considered with other consented or proposed wind farms. It should identify the significant cumulative impacts arising from the proposed wind farm*"[4].

5.2.27 Guidance (NatureScot, 2021) goes on to say "*The aim of the cumulative assessment is to identify the magnitude of additional cumulative change which would be brought about by the proposed development when considered in conjunction with other wind farms*".

5.2.28 In some situations, it is also relevant to consider the "*combined effects of all the past, present and future proposals together with the new project*" as noted in paragraph 7.18 of GLVIA3. This type of cumulative effect is described in GLVIA3 (paragraph 7.17) as "*incremental change as a result of successive individual developments such that the combined landscape and/or visual effect is significant even though the individual effects may not be*". However, in the case of the Proposed Development, the limited number of relevant cumulative wind farm sites (as shown on **Figure 5.14b**) and their considerable distance from the Proposed Development ensure that a significant combined cumulative effect would not arise on any landscape or visual receptors. This type of cumulative effect is therefore not assessed in relation to landscape and visual receptors.

Assessing Night-Time Effects

5.2.29 The Civil Aviation Authority (CAA) requires that 'en-route obstacles' at or above 150 m above ground level are lit with visible lighting to assist their detection by aircraft. As the turbines in the Proposed Development are more than 150 m to tip height there is a requirement for the turbines to display medium intensity 'steady' red aviation lights (emitting 2,000 candela (cd)) at night. These would be fitted to the nacelles of all Proposed Development turbines. Low intensity mid-tower lights would not be required. All nacelles would also be fitted with infra-red lighting for Ministry of Defence (MoD) purposes; this is not visible to the human eye and is therefore not relevant to the LVIA.

5.2.30 The actual effect/perception of visible aviation lights at the Proposed Development would be dependent on a range of factors, including the distance of the viewer from the Proposed Development, the model and intensity of lights used, the clarity of atmospheric visibility and the degree of negative vertical angle of view from the light to the receptor. For this visual assessment, a worst-case approach is applied which considers the effects of both 2,000 cd lights and 200 cd lights during periods of clear visibility. It should be noted however, that as the required medium intensity lights need only be used to their

[4] NATURESCOT (2021). Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments

optimum output or intensity during periods of poor visibility, that 2,000 cd lighting represents a worst-case position, as it is unlikely to be experienced at that maximum illumination level. Similarly, 200 cd is unlikely to be experienced by observers at locations lower than the turbine nacelle heights due to the reduction in light intensity at negative elevation angles that can be achieved through selection of specific lights with embedded mitigation.

5.2.31 The night-time photography has been taken in periods of good visibility that is greater than 5 km. As a result, the night-time photomontage representations of the 2,000 cd lights are an unrealistic over-representation of the likely visibility of visible aviation lighting. This is because visibility on the site (and probably at the viewpoint itself) is very likely to be considerably poorer (<5 km) when the lights are operating at that intensity.

5.2.32 The visual assessment of turbine lighting is intended to determine the likely effects that the Proposed Development would have on the visual resource e.g. it is an assessment of the effects of visible aviation lighting on views experienced by people at night. The assessment of visible lighting is a visual effect because the lighting would not be activated at times when there is a clear perception of landscape character, during daylight hours, and would not affect the physical pattern of elements that constitutes landscape character. The assessment of effects of visible aviation lighting therefore focusses on viewpoints and visual receptors and does not apply to landscape character assessment.

5.2.33 **Technical Appendix 5.1** describes the methodology used to assess night-time effects.

5.2.34 In summary, the following assumptions have been made in relation to the assessment of effects of visible lighting:

- the CAA requires that all obstacles at or above 150 m above ground level are fitted with visible lighting and in the case of wind turbines, the lights should be located on the nacelle;
- the 2,000 cd medium intensity lights may be dimmed to 10%, or 200 cd, if visibility is greater than 5 km, i.e., in moderate to excellent or ‘clear’ visibility;
- in accordance with CAA requirements the lights would be switched on 30 minutes after official sunset and switched off again 30 minutes before sunrise;
- the CAA requires that a secondary light is fitted for use only when the primary light fails and these would not be lit concurrently;
- the worst-case scenario for night-time effects includes the following parameters:
    - all turbines in the Proposed Development would have medium intensity visible red lights mounted on the nacelle;
    - no mid-tower low intensity lights are required;
    - 2,000 cd and 200 cd intensity lights have been assessed representing two worst-case situations: 2,000 cd represents the maximum intensity possible; 200 cd represents the maximum intensity that would be used when visibility exceeds 5 km; and
    - the steady red medium intensity lighting fixed to the top of the nacelles may appear to flicker on and off with blade rotation when the turbine blades pass between the lights and the observer, dependent on wind direction and the position of the observer.

Nature of Effects

5.2.35 The 'nature of effects' relates to whether the effects of the Proposed Development are positive (beneficial) or negative (adverse). Effects may also be neutral. Guidance provided in GLVIA3 (paragraph 3.22) states that "*thought must be given to whether the likely significant landscape and visual effects…are judged to be positive (beneficial) or negative (adverse) in their consequences for landscape or for views and visual amenity*". The nature of effect is therefore one that requires interpretation and reasoned professional opinion.

5.2.36 In relation to many forms of development, the EIA Report identifies positive and negative effects under the term 'nature of effect'. The landscape and visual effects of wind farms are difficult to categorise in either of these brackets as, unlike other disciplines, there are no definitive criteria by which these effects can be measured as being categorically positive or negative. For example, in disciplines such as noise or ecology it is possible to identify the nature of the effect of a wind farm by objectively quantifying its effect and assessing the nature of that effect in prescriptive terms. However, this is not the case with landscape and visual effects, where the approach combines quantitative and qualitative assessment.

5.2.37 This assessment adopts a precautionary approach, which assumes that significant landscape and visual effects will be weighed on the negative side of the planning balance, although positive or neutral effects may arise in certain situations. Unless stated otherwise, the effects of the Proposed Development on landscape and visual amenity are considered to be negative.

Duration and Reversibility

5.2.38 The duration and reversibility of effects are based on the period over which the Proposed Development is likely to exist and the extent to which it could be removed and its effects reversed at the end of that period.

5.2.39 The effects of the Proposed Development are of variable duration, and are assessed as short-term or long-term, and permanent or temporary/reversible. It is anticipated that the operational life of the Proposed Development would be 40 years. The wind turbines, substation (including battery storage) and access tracks would be apparent during this time, and these effects are considered to be long-term.

5.2.40 Other infrastructure and operations such as the construction processes and plant (including tall cranes for turbine erection) and construction compounds would be apparent only during the initial construction period of the Proposed Development and are considered to be short-term effects. Borrow pit excavation would also be short-term as borrow pits would be restored at the end of the construction process.

5.2.41 The reversibility of effects is variable. The most apparent effects on the landscape and visual resource, which arise from the presence of the wind turbines, are temporary/ reversible as the turbines would be removed on decommissioning. The effects of the tall cranes and heavy machinery used during the construction and decommissioning periods would also be temporary.

5.2.42 The access tracks may be left in situ at decommissioning at the request of the landowners, or they would otherwise be covered with topsoil and left to naturally

regenerate. Turbine foundations (except for the top 1 m which would be removed) and underground cabling would be left in-situ below ground with no residual landscape and visual effects.

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

5.3 Consultation Undertaken

Table 5.2: Summary of Consultation Responses

Date	Issue Raised	Response/Action Taken
West Dunbartonshire Council (WDC)		
Scoping response 10th June 2022	Reference should be made to the West Dunbartonshire Local Development Plan Kilpatrick Hills, Local Landscape Area, Statement of Importance (May 2015).	The Kilpatrick Hills, Local Landscape Area, Statement of Importance (May 2015) has been referred to in the LVIA.
	Landscape and visual impact, particularly on LLTNP, is a significant concern.	Noted.
	LLTNPA has previously recommended Bat a Charchel, Ben Ledi and Ben Lomond to be used as cumulative viewpoints.	These viewpoints are included in the LVIA and a cumulative assessment is carried out for all viewpoints.
	LLTNPA has previously recommended a location near Blairbech Plantation (GR 437838) or local viewpoint at the edge of LLTNP, Beinn Dubh, Loch Lomond, and Croftamie as viewpoints for development of this site.	Blairbech Plantation is located close to LVIA Viewpoint 2 (Minor road north of site), which is also within but towards the edge of LLTNP. There is also likely to be some filtering of visibility by vegetation at Blairbech Plantation, whereas Viewpoint 2 gains a clear and open view. Viewpoint 2 is therefore considered to be a more suitable alternative location for a viewpoint, particularly as its revised location is further east than indicated at scoping, and therefore closer to this location. Beinn Dubh (Viewpoint 26) and two viewpoints on Loch Lomond (Inchcailloch Island, Viewpoint 11 and the route of the waterbus east of Luss, Viewpoint 20) are included as LVIA viewpoints. Croftamie is enclosed and well screened by woodland. Old railway line path (NCN 7 and John Muir Way) through the village and on either side is well-enclosed by woodland etc and would not gain clear visibility.

Date	Issue Raised	Response/Action Taken
Project update to WDC 21st December 2022	On 21st December 2022 OPEN emailed WDC with a project update that responded to WDC's scoping response, as summarised above. Attached to this email were a revised viewpoint list and two ZTV figures showing viewpoint locations. In summary, this email included the following relevant points: • Reference will be made in the LVIA to the West Dunbartonshire Local Development Plan – Kilpatrick Hills, Local Landscape Area, Statement of Importance (May 2015). • Bat a Charcel (NCR7), Ben Ledi and Ben Lomond will be included as cumulative viewpoints. • Beinn Dubh and a waterborne view from Loch Lomond are included as viewpoints; the suggested location at 'Junction B-road Blairbeich Plantation or local viewpoint at the edge of the Park' is represented by Viewpoint 2. We have not been able to identify a location in or in the vicinity of Croftamie that gains suitably clear visibility for inclusion as a viewpoint. • At this stage in the process, we are hoping to finalise viewpoint locations as far as is possible and would be very grateful if you could please review the information in the viewpoint table and shown on the plans and let us know any comments you may have on this.	22nd December 2022 WDC responded, noting that "*We will review the viewpoints and provide any comments we have but it will not be until January now*". 18th January 2023 WDC responded again, noting that "*We are consulting with the Loch Lomond and the Trossachs National Park regarding to the view points for the proposal. I will be in contact with you again once we have heard back*."
No further correspondence has been received from WDC.		
Loch Lomond and the Trossachs National Park Authority (LLTNPA)		
Scoping response 16th June 2022	The following documents should be considered in the LVIA: • LLTNP Renewable Energy Planning Guidance (2017) Appendix 7: Advice for windfarm developers	The content of these documents has been considered in relation to the LVIA.

Date	Issue Raised	Response/Action Taken
	proposing wind farm developments outwith the National Park; • Wildness Study in the Loch Lomond and The Trossachs National Park (January 2011). LLTNP recommends that a Wild Land Assessment is undertaken with reference to this document; • The Special Landscape Qualities of the Loch Lomond and The Trossachs National Park (2010); and • Landscape Capacity Study for Wind Turbine Development in Glasgow and the Clyde Valley (2014).	The Special Landscape Qualities of the Loch Lomond and The Trossachs National Park (2010) is an important consideration in the LVIA. LLTNP Renewable Energy Planning Guidance (2017) Appendix 7 has been considered in the LVIA. A wild land assessment has not been undertaken given the location of the Proposed Development site outwith WLAs (see paragraph 5.5.35 of this Chapter for further explanation). The Landscape Capacity Study for Wind Turbine Development in Glasgow and the Clyde Valley is of limited relevance due to changes in the renewable industry (e.g. advances in turbine technology and scale, climate emergency) since its publication in 2014.
	LLTNPA has a joint working protocol with NatureScot and has reviewed the scoping response from NatureScot. LLTNPA agrees with the NatureScot response and supports the request for additional viewpoints.	Noted. Additional viewpoints as suggested by, and agreed with, NatureScot have been included in the LVIA.
	LLTNPA requests a viewpoint from the Tarbet area and highlights the value of a viewpoint at Ben Venue.	Viewpoints at Ben Venue (Viewpoint 31) and Tarbet (Viewpoint 32) are included
	LLTNPA recommends that the ZTV includes the LLTNP boundary as well as showing the recreational network.	**Figures 5.11a** and **5.11b** show LLTNP boundary with the ZTV. **Figure 5.13a** (45 km radius) shows long distance paths with the ZTV and **Figure 5.13b** (20 km radius) shows long distance paths and core paths with the ZTV.
	LLTNPA welcomes the reference to waterborne routes in Loch Lomond and would expect this to include the waterbus network.	Effects on views from waterborne routes and recreational users are considered in the LVIA.
	LLTNPA reiterates the importance of assessing impacts on access and recreation within LLTNP and welcomes the inclusion of key paths listed in the scoping report. LLTNPA recommends that views from	The LVIA assesses effects on views from core paths. It is not possible to individually assess each core path and the assessment of effects on views from core paths draws wider conclusions as to the overall likely effects.

Date	Issue Raised	Response/Action Taken
	core paths within the Park are included, and not only where these overlap with major recreational routes.	
Project update to LLTNP 21st December 2022	On 21st December 2022 OPEN emailed LLTNP with a project update that responded to LLTNP's scoping response and included a revised draft viewpoint list. This email noted that "*We can confirm that we are responding to NatureScot regarding the points raised in their scoping response, including viewpoint locations. I have attached the current draft viewpoint list, which indicates the additional viewpoints (suggested by LLTNPA, NatureScot and WDC) that have been considered in the site work undertaken to date. This list includes suggestions made by LLTNPA for viewpoints at Tarbet and Ben Venue*." The email concluded "*Please do let me know if you have any comments or queries on any aspects of the information provided above*".	No response to this email was received from LLTNP.
Email correspondence 23rd February 2023	Email correspondence from LLTNP to OPEN noted that: "*The LLT National Park has been asked by WDC to provide comments on the viewpoints proposed for the LVIA Vale of Leven Windfarm, apologies for the delay in replying."* The following further information, which OPEN had offered to WDC in December 2022, was requested: • *A1 figure showing 45km study area with blade tip ZTV of the current layout, draft proposed viewpoint locations, landscape planning designations and relevant visual receptors.* • *A1 figure showing a 25km study area with the same information as above.*	A link to download the two ZTVs was sent by OPEN to LLTNP on 24th February 2023, and a viewpoint list sent by email.

Date	Issue Raised	Response/Action Taken
	• *And the draft viewpoint table*	

Email correspondence 2nd March 2023	Email correspondence entitled 'Landscape Advice' was received from LLTNP. In summary, this included the following relevant points:
	• *…we wish to advise at this initial consultation, and without prejudice to any future advice, that the proposed development of 10, 250m high turbines, 300m from Loch Lomond and the Trossachs National Park (LLTNP) boundary, with associated aviation lighting represents a step change in proximity of windfarm development to the LL&TNP…*
	• *The scope of the AESLQ…is likely to include many if not all of the NPs General Special Landscape Qualities and the SLQ associated with the Loch Lomond sub section. It is likely that some SLQs should be included from the Argyll Forest and the Trossachs sections.*
	• *We recommend viewpoints from Inchmurrin, Inchcailloch, and Inchtavannach or/Inchmoan islands to represent the views from the Islands.*
	• *Replacement of Ben Bowie with Gouk Hill… if visibility is greater from Ben Bowie it should remain.*
	• *We do not consider sufficient viewpoint representation is currently proposed on the southwest section of Loch Lomond…We recommend the following viewpoints:*
	  ○ *One of Arden - Jetty, House or gardens;*
	  ○ *Rossdhu golf course or woodland walk;*
	  ○ *Along the A817, Shantron hill or OS viewpoint;*
	  ○ *Tom na h-Airidh…; and*
	  ○ *Balcnock, in the Fruin Hills…*
		14th April 2023 – a letter was issued by RSK (as EIA Project Managers) as a response to LLTNP. In summary, this included the following relevant points:
		• The draft Viewpoint List includes 33 viewpoints, 20 of which were identified by OPEN through its desk based evaluation and fieldwork together with a further 13 viewpoints picked up from WDC, LLTNP, NatureScot and Stirling Council Scoping Responses.
		• The nearest turbine of the 10 turbine layout is approximately 1.9 km from the boundary with LLTNP. The red edge of the Site is 300m from the boundary.
		• The LLTNP Scoping Response (June 2022) states (emphasis added) that "*The Loch Lomond and Trossachs National Park Authority have a joint working protocol with NatureScot and as such we have reviewed the response by NatureScot. This covers the likely impacts on the Special Landscape Qualities of the National Park and the NSA's and we agree with the assessment made by NatureScot as set out in Annex 1 of their response and support the request for additional viewpoints. In addition to the viewpoint recommendations made by NatureScot, we would request a viewpoint from the Tarbet area looking over Loch Lomond and highlight the value of a viewpoint at Ben Venue. This will allow us to assess the implications the proposal would have on the National Park's Special Landscape qualities and any effects on landscape and visual receptors within the Park*."
		• The two additional viewpoint locations suggested by LLTNPA in its scoping response (Ben Venue and Tarbet) are included in the draft Viewpoint List.
		• Discussions have taken place with NatureScot on the basis of the joint working protocol referred to above, and in

Date	Issue Raised	Response/Action Taken

	• *When assessing visibility and visual effects on SLQs, it is useful to distinguish between the following:*
	  ○ *Visibility of the proposal…;*
	  ○ *Visual effects of the proposal which would not affect the SLQs…;*
	  ○ *Visual effects of the proposal which would affect the SLQs…; and*
	  ○ *Visual effects which would significantly affect the SLQs….*
	• *This distinction highlights the importance of carefully selecting sample locations to assess a representative range of potential effects on SLQs. For this purpose, some sample points may also be LVIA viewpoints, but some LVIA viewpoints may not be best-suited for assessing effects on SLQs.*
	Cumulative and lighting assessment viewpoints are not provided and therefore we cannot comment beyond identifying that the assessment should include Viewpoints for the cumulative assessment and key viewpoints to assess the lighting impacts.
		January 2023, NatureScot expressed that it was content with the 33 viewpoints that are included in the draft Viewpoint List.
		• On this basis, we would assume that the viewpoints that have been included on the draft Viewpoint List, including suggestions from LLTNPA and NS, would allow LLTNPA "*to assess the implications the proposal would have on the National Park's Special Landscape qualities and any effects on landscape and visual receptors within the Park*", as noted in the scoping response (quoted above).
		• In conclusion, the Applicant has actively sought agreement of the Viewpoint List with NatureScot, which in this case is the lead consultee in relation to LLTNP; has incorporated viewpoints requested by LLTNPA at Scoping stage; and has instructed the LVIA on that basis. The inclusion of the agreed 33 viewpoints within the LVIA provides an appropriate and proportionate level of illustration and basis for the assessment of the likely significant landscape and visual effects.
		The Applicant considers that the LLTNPA's request for further viewpoints to be added to the LVIA is disproportionate and is not agreed.

No further correspondence has been received from LLTNP.		
NatureScot		
Scoping response 26th May 2022	The EIA Report should consider impacts on the Special Qualities of the Park. The EIA Report should identify the Special Qualities likely to be affected. These are likely to include: *General Special Qualities* • *Wild rugged highlands contrasting with pastoral lowlands;*	The LVIA includes an assessment of effects on the Special Landscape Qualities (SLQs) of LLTNP.

Date	Issue Raised	Response/Action Taken
	• *Settlement nestled within a vast natural backdrop;* • *Tranquillity;* • *The easily accessible landscape splendour;* *Argyll Forest* • *The mountainous and distinctive peaks of Arrochar;* *Loch Lomond* • *Immensity of the loch and landscape;* • *Two Lochs in one;* • *Distinctive mountain groups;* • *Ben Lomond, widely known, popularly frequented;* • *A multitude of beautiful islands; and* *The Trossachs* • *A traditional 'Gateway to the Highlands'.*	
	The wind farm is likely to have significant adverse impacts on iconic places, landmarks and views outwith the Loch Lomond NSA and LLTNP. These include: • The Whangie (incorporating the Queens View/Auchineden Hill); and • Dumbarton Rock and Castle.	The Whangie (Viewpoint 6) and Dumbarton Rock and Castle (Viewpoint 8) are included as viewpoints in the LVIA.
	The Proposed Development is in the Rugged Moorland Hills LCT, which provides an important backdrop. Looking north from south of the River Clyde (e.g. Erskine, Bishopton, Port Glasgow, Greenock, Kilmacolm and Bridge of Weir) the Kilpatrick Hills form foreground hills to LLTNP and the highlands. Along the Clyde valley, Kilpatrick Hills and Renfrewshire Heights frame westwards views to the mouth of the Clyde. The Kilpatrick Hills are of recreational importance for the Glasgow conurbation; Clydebank, Bearsden	Noted.

Date	Issue Raised	Response/Action Taken
	Dumbarton, Alexandria and Greenock are in close proximity.	
	The Kilpatrick Hills are highly visible from all directions. The scoping layout ZTV demonstrates widespread visibility of the wind farm, with extensive visibility of 19 turbines covering Loch Lomond, its islands, shorelines and hilltop summits, national walking and cycling routes, major roads and tourist routes and destinations. The wind farm will be visible and prominent in important panoramic/ iconic views, experienced by recreational users on Loch Lomond and surrounding areas.	The LVIA assesses the effects of the Proposed Development on the 45 km Study Area, including Loch Lomond and its surroundings.
	NatureScot considers additional viewpoints should include: • Conic Hill; • the eastern shore and bays in LLTNP/Loch Lomond NSA; • Loch Lomond National Nature Reserve (Ring Point); • Aberfoyle area, such as Ben Venue; Flanders Moss; • Balloch (Lomond Shores/ Country Park); • the Luss Hills; • Cameron House/Boathouse; • Inverbeg Holiday Park or jetty; • south of the River Clyde; • island viewpoints; and • water-based viewpoints.	These viewpoints have been investigated and, where relevant, incorporated into the LVIA. This process is described below in relation to further correspondence with NatureScot.
	LLTNP landscape has a relatively dark sky. Comprehensive night-time assessment will be required	The lighting assessment has been carried out in accordance with Annex 2 of NatureScot's pre-application and scoping

Date	Issue Raised	Response/Action Taken
	along with mitigation of effects given the highly visible location and potential effects on LLTNP/ Loch Lomond NSA. NatureScot considers that lighting affects landscape character and views. The lighting assessment should be carried out in accordance with Annex 2 of NatureScot's pre-application and scoping advice for onshore wind farms. Assessment of night-time effects should be included within relevant sections of the LVIA rather than a standalone section.	advice for onshore wind farms. Assessment of night-time effects is included within relevant sections of the LVIA rather than a standalone section. The night-time assessment considers effects at the LVIA viewpoints (see below, email correspondence 20th January 2023).
	The LVIA should include cumulative assessment in line with NatureScot's current guidelines. Cumulative effects from turbine lighting should be fully assessed (including onshore and offshore), focussing on locations where darkness is a key characteristic of baseline landscape character. Photomontages should illustrate cumulative effects of wind farm lighting.	Noted.
Email correspondence 20th January 2023 (In response to OPEN's email to NatureScot, 21st December 2022)	NatureScot agrees with OPEN's suggestion that potential viewpoints at Lochan Maoil Dhuinne and Rowardennan Lodges are discounted due to limited visibility. NatureScot would welcome sight of a wireline from 'Lochan Maoil Dhuinne A' viewpoint to benchmark the actual level of visibility/partial screening.	Photowire (photograph overlaid with a wireline) issued by OPEN to NatureScot on 22nd March 2023 to illustrate visibility from Lochan Maoil Dhuinne A. See below for further correspondence (email, 3rd April 2023).
	NatureScot agrees with the exclusion of a viewpoint at Ring Point itself due to its relatively inaccessible nature and is content with OPEN's alternative proposed location at Endrick Viewpoint.	Noted. Endrick Viewpoint is included as LVIA Viewpoint 12.
	NatureScot is content with the general location of the Finlaystone House viewpoint within the terrace/formal gardens.	Noted. Finlaystone House is included as LVIA Viewpoint 13.
	NatureScot is satisfied with the exclusion of viewpoints at Flanders Moss, Lomond Shores, The Boathouse,	Noted.

Date	Issue Raised	Response/Action Taken
	Inverbeg Jetty, Formakin House and Bishopton, and, where relevant, the alternatives suggested by OPEN.	
	NatureScot is happy to comment on island/water viewpoints once the design freeze is reached, as suggested by OPEN.	See below for further correspondence (email, 3rd April 2023).
	NatureScot is content with OPEN's comment that while the night-time assessment will focus on visual effects it will also give consideration to defining features (e.g. strong ridgeline profiles) that can influence landscape character and may be seen at night	Noted.
Email correspondence 3rd April 2023 (In response to OPEN's email to NatureScot, 22nd March 2023)	NatureScot is content with OPEN's five suggested night-time viewpoint locations.	Noted.
	NatureScot is content with OPEN's proposed list of cumulative wind farms to be considered in the LVIA.	Noted.
	NatureScot is content with OPEN's approach to not include Lochan Maoil Dhuinne A as a viewpoint.	Noted.
	NatureScot is content with OPEN's suggested island/water-based viewpoints at Inchcailloch and the centre of the loch, east of Luss, on the waterbus route.	Noted. These locations are included as LVIA Viewpoints 11 (Inchcailloch) and 20 (Waterbus).
Stirling Council (SC)		
Scoping response 16th May 2022	The scope of night-time visual assessment needs to expand from that suggested in the scoping report given the number of lights and elevated, prominent position close to population centres, LLTNP, and locally designated landscapes in SC area.	The night-time assessment includes night-time visualisations for five viewpoints, as agreed with NatureScot, and considers potential night-time effects at all viewpoints.
	The Blade Tip ZTV indicates some visibility from the popular visitor attraction of Mugdock Country Park. SC requests that consideration is given to visual impacts	Effects on Mugdock Country Park are considered in **Section 5.5**. The EIA Report does not include a specific assessment of impacts on tourism and recreation assets, but these are included where relevant in the LVIA.

Date	Issue Raised	Response/Action Taken
	and that this also informs the assessment of impacts on tourism and recreation assets.	
	The proposed viewpoints within SC (Dumgoyne, Balfron and the Whangie) are otherwise considered sufficient. It should be clarified if the viewpoint is actually in the vicinity of the Whangie itself or Auchineden Hill.	Noted. The Whangie viewpoint (Viewpoint 6) is located on high ground between the Whangie and Auchineden Hill.
Email correspondence 1st March 2023 (In response to OPEN's emails to Stirling Council, 21st December 2022 and 22nd February 2023)	SC is content with the LVIA viewpoints that are located within the Council area (Dumgoyne, Balfron and the Whangie).	These viewpoints are included in the LVIA (Dumgoyne - Viewpoint 16; Balfron Cemetery – Viewpoint 22; and Whangie- - Viewpoint 6).
	SC requests that the LVIA includes comments on visibility from Mugdock Park in the future if forestry felling takes place.	Noted. Effects on Mugdock Country Park are considered in **Section 5.5**.
	Confirmed that the Council's Draft Supplementary Guidance on Biodiversity & Landscape (2019) has not been formally adopted but does contain relevant 'citations' for Local Landscape Areas (LLA).	The assessment of effects on SC LLAs makes reference to this document.
	Stirling Council is content for the NatureScot 2019 landscape character dataset to be used for landscape character baseline.	Noted.

5.4 Statutory and Planning Context

5.4.1 The following planning and guidance sources have been considered in this assessment:

- Argyll and Bute Council (2015). Local Development Plan;
- East Dunbartonshire Council (2022). Adopted Local Development Plan 2;
- Inverclyde Council (2019). Adopted Local Development Plan;
- Glasgow City Council (2017). Adopted Development Plan;
- Landscape Institute and IEMA (2013). Guidelines for Landscape and Visual Impact Assessment: Third Edition (GLVIA3). Routledge;
- Landscape Institute (2019). Visual Representation of Development Proposals: Landscape Institute Technical Guidance Note 06/19;
- Landscape Institute (2019). Technical Guidance Note 2/19 Residential Visual Amenity Assessment;
- LLTNPA (2010). Core Paths Plan;
- LLTNPA (2017). Renewable Energy Planning Guidance Appendix 7: Advice for windfarm developers proposing wind farm developments outwith the National Park;
- LUC (2014). Landscape Capacity Study for Wind Turbine Development in Glasgow and the Clyde Valley (2014);
- NatureScot (2020). Assessing Impacts on Wild Land Areas Technical Guidance;
- NatureScot (2021). Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments;
- Scottish Government (2023). National Planning Framework 4;
- Scottish Natural Heritage and Loch Lomond and The Trossachs National Park Authority (2010). The special landscape qualities of the Loch Lomond and The Trossachs National Park. Scottish Natural Heritage Commissioned Report, No.376;
- SNH (2018). Guidance for Assessing the Effects on Special Landscape Qualities;
- SNH (June 2014). Map of Wild Land Areas;
- SNH (2017). Description of Wild Land Areas;
- SNH (2017). Siting and Designing Wind Farms in the Landscape Version 3a;
- SNH (2017). Visual Representation of Wind Farms, Version 2.2;
- SNH (2018). Working draft Guidance for Assessing the Effects on Special Landscape Qualities;
- Stirling Council (2018). Adopted Local Development Plan;
- Stirling Council (2019). Supplementary Guidance November 2019 Appendix 4 - Citations For Local Landscape Areas;
- University of Leeds (2011). Wildness Study in the Loch Lomond and The Trossachs National Park;
- West Dunbartonshire Council (2015). Kilpatrick Hills Local Landscape Area Statement of Importance;
- West Dunbartonshire Council (2020). Local Development Plan 2;
- West Dunbartonshire Council (2010). Adopted West Dunbartonshire Local Plan;

5.4.2 Online resources:

- NatureScot General pre-application and scoping advice for onshore wind farms (August 2022) https://www.nature.scot/doc/general-pre-application-and-scoping-advice-onshore-wind-farms#Annex+1%E2%80%8B; and
- Scottish Landscape Character Types Map and Descriptions 2019 https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions.

5.5 Baseline Conditions and Preliminary Assessment

5.5.1 The baseline section of the LVIA records the existing conditions of the Study Area. Establishing a baseline helps to gain an understanding of the important components or characteristics of the landscape, and is instrumental in the identification of the landscape character receptors, visual receptors and viewpoints that are included in the assessment. This section is presented under the following headings:

- landscape character;
- landscape planning designations;
- wild land areas;
- principal visual receptors;
- viewpoints; and
- cumulative wind farm developments.

5.5.2 This section also identifies which of the landscape and visual receptors have potential to undergo significant effects or significant cumulative effects as a result of the Proposed Development, and therefore require to be assessed in detail. This is implemented through a two-stage filtering process. Firstly, ZTV mapping is used to identify receptors which would gain any theoretical visibility of the Proposed Development, and where there is no visibility, receptors are discounted from the assessment. Secondly, the receptors that are shown on ZTV mapping to gain some visibility of the Proposed Development have a preliminary assessment to ascertain if they have potential to undergo significant effects. This preliminary assessment considers factors that determine the sensitivity of the receptor and the magnitude of change that would result from the addition of the Proposed Development. Various methods of verification are used in this second stage, including site visits, ZTVs, GIS mapping, wirelines and aerial photography.

5.5.3 In the case of some receptors, this preliminary assessment indicates that the landscape or visual receptor does not have potential to undergo a significant effect as a result of the Proposed Development, despite gaining visibility of it. This is most frequently due to the limited predicted level of visibility and influence of the Proposed Development. Where this is the case, the potential effects on the receptor do not need to be assessed in any further detail and at this stage they can be discounted from the assessment.

5.5.4 Where the preliminary assessment indicates that there is potential for the receptor to undergo a significant effect or cumulative effect as a result of the Proposed Development, this is assessed in detail subsequently in this Chapter.

Landscape Character

5.5.5 Landscape character information for the Study Area is drawn from NatureScot's 2019 digital dataset of landscape character[5]. Guidance on the NatureScot web page advises that type-specific landscape capacity studies (such as those for wind energy development) should, where they have been produced, take precedence over the NatureScot 2019 dataset. The West Dunbartonshire area, including the Site, is not covered by a relevant topic-specific capacity study for wind energy development, and landscape character has therefore been classified in accordance with the 2019 NatureScot dataset. While some parts of the study area are covered by capacity studies, these are not relevant for development that lies outwith the capacity study area and they are therefore not referenced.

5.5.6 The NatureScot 2019 dataset divides the landscape into tracts that are referred to as landscape character types (LCTs). Landscape character across the Study Area is shown on **Figure 5.3a** (to a 45 km radius) and **Figure 5.3b** (to a 20 km radius) and in relation to the blade tip ZTV on **Figure 5.10a** (to a 45 km radius) and **Figure 5.10b** (20 km radius). Many LCTs are extensive, sometimes covering several areas that are geographically separate, and the effects of the Proposed Development can vary across a single landscape character type. Several of the landscape character types have therefore been divided into 'units', which are referred to in Table 5.3 and shown on **Figure 5.3b** and **Figure 5.10b**. The landform of the Site and Study Area is of relevance in the survey of landscape character, and this is shown on **Figure 5.2**.

5.5.7 The great majority of the Proposed Development lies within Rugged Moorland Hills LCT (LCT 216), as shown on Figure 5.3a and Figure 5.3b. There are three incidences of this LCT in the 45 km study area: the Kilpatrick Hills, the Renfrewshire Heights, and the Campsie Fells/Kilsyth Hills. These relatively low-lying but prominent hills form a series of rugged uplands that intermittently enclose the north-western parts of the Clyde Basin. A very short section of access track and a construction compound lie within the Rolling Farmland - Glasgow & Clyde Valley LCT, which abuts a short section of the Kilpatrick Hills unit of Rugged Moorland Hills LCT.

5.5.8 **Table 5.3** includes the preliminary assessment of the LCTs and units that are found in the 20 km radius Study Area and indicates which of them are considered to have potential to undergo a significant effect as a result of the Proposed Development. The LCTs/units that do have potential to undergo a significant effect are assessed in full subsequently in this Chapter. LCTs that lie outwith a 20 km radius are discounted from the assessment as the preliminary assessment has indicated that these do not have potential to undergo a significant effect due to a combination of distance and lack of or limited visibility and influence of the Proposed Development. The main host LCT – the Kilpatrick Hills unit of Rugged Moorland Hills LCT - is listed first, followed by other LCTs in alphabetical order.

[5] URL: https://www.nature.scot/professional-advice/landscape/landscape-character-assessment, (2019)

Table 5.3: Preliminary Assessment of LCTs within the 20 km Study Area

Landscape Character Type/Unit	Comment
Included in detailed assessment due to level of influence and visibility of the Proposed Development	
Rugged Moorland Hills (LCT 216): Kilpatrick Hills	The Site lies within this unit, resulting in direct and perceived effects on landscape character.
Lowland Hill Fringes – Central (LCT 150): Cameron Muir/Stockie Muir and Mugdock	ZTV shows visibility from a minimum of approximately 2.3 km away.
Lowland Loch Basin - Loch Lomond & the Trossachs (LCT 263)	ZTV shows intermittent visibility from a minimum of approximately 3.6 km away.
Lowland Loch Basin Islands (LCT 264)	ZTV shows intermittent visibility from a minimum of approximately 7.6 km away.
Open Ridgeland - Glasgow & Clyde Valley (LCT 215): Alexandria	ZTV shows intermittent visibility from a minimum of approximately 5.8 km away.
Parallel Ridges - Loch Lomond & the Trossachs (LCT 255): Ben Bowie	ZTV shows intermittent visibility from a minimum of approximately 7.2 km away.
River Valley Farmland and Estates (LCT 260)	ZTV shows visibility from a minimum of approximately 5.6 km away.
Rolling Farmland - Glasgow & Clyde Valley (LCT 200): Alexandria	ZTV shows visibility from a minimum of approximately 3.2 km away. There is also a very limited area of infrastructure within this LCT.
Rolling Farmland - Loch Lomond & the Trossachs (LCT 261)	ZTV shows visibility from a minimum of approximately 2 km away.
Rugged Upland Farmland (LCT 202): Kilmacolm	ZTV shows intermittent visibility from a minimum of approximately 5.4 km away.

Landscape Character Type/Unit	Comment
Not included in detailed assessment: limited and/or distant visibility/influence of the Proposed Development and no specific association with the Site area.	
Agricultural Plain - Glasgow & Clyde Valley (LCT 198)	ZTV shows intermittent and limited visibility from a minimum of approximately 8.2 km away. This is a generally flat and low-lying landscape that has no specific landform orientation, and no association with the Site. NatureScot notes that "*Large scale industry has had a major impact on the parts of this landscape type*", and there is extensive residential development, including on the area that lies at closest proximity to the Proposed Development.
Broad Valley Lowland - Glasgow & Clyde Valley (LCT 205)	ZTV shows limited and very intermittent visibility, much of it blade only, from a minimum of approximately 14 km away.
Drumlin Foothills (LCT 211)	ZTV shows limited and very intermittent visibility, partly blade only, approximately 11 km away. There are several small areas of very limited theoretical blade visibility approximately 8.5 km away, but this would not result in significant effects.
Highland Summits (LCT 251)	ZTV shows intermittent/very intermittent visibility a minimum of approximately 12 km away. This LCT has a strong innate character that does not rely on external influences and would not be materially affected by the Proposed Development. Viewpoints 29 (Ben Lomond), 31 (Ben Venue) and 33 (Ben Ledi), within this LCT, are assessed to have not significant effects. One of the key characteristics of this LCT is that the mountains are seen as landmarks from other LCTs, and this would not be affected by the Proposed Development.
Lowland Hills – Central (LCT 149)	ZTV shows intermittent visibility from a minimum of approximately 9.5 km away. The closest area of this LCT covers the Campsie Fells, with intermittent theoretical visibility. The NatureScot description notes "*Important close visual interrelationships between the hills and escarpments, and neighbouring lowland and carseland areas*" and "*The unity of the Campsie Fells is accentuated by the encircling and enclosing sweep of the converging river valleys of the Endrick and Blane Waters. The farmed and wooded undulating land which surrounds the valleys forms a strong visual and physical integration with the hills, tending to soften their dominant impact".* There is therefore a strong association between this LCT and the surrounding lowlands/valleys but no specific association with the Rugged Moorland Hills LCT within which the Site lies. The wide open aspect that is available from much of this unit ensures that the Proposed Development would form a minor external influence on landscape character.

Landscape Character Type/Unit	Comment
Lowland Hill Fringes – Central (LCT 150): Gargunnock/Fintry Fringe	ZTV shows very intermittent visibility from a minimum of approximately 18 km away.
Lowland River Valleys – Central (LCT 152): Strath Blane, Endrick Water, Blane Water, and Middle Endrick Water	ZTV shows intermittent visibility from a minimum of approximately 5.4 km away. This area of closer visibility is very intermittent, with landform dropping down to the Endrick and Blane Waters, away from the Proposed Development. The more continuous theoretical visibility is gained from a minimum of approximately 10 km away. This LCT is strongly influenced by the nearby Campsie Fells has no specific association with the Site. Extensive vegetation cover also reduces visibility.
Lowland Plateaux – Central (LCT 151)	ZTV shows intermittent visibility from a minimum of approximately 14.8 km away. The landform has no strong orientation and this LCT has no specific association with the Site.
Lowland Valley Fringes (LCT 154)	ZTV shows very intermittent visibility from a minimum of approximately 14.2 km away. The landform is generally orientated away from the Site and the LCT has no specific association with it.
Open Ridgeland - Glasgow & Clyde Valley (LCT 215): Rhu	ZTV shows intermittent visibility from a minimum of approximately 12.5 km away. Landform is strongly orientated north-eastwards and eastwards, away from the Site, which lies to the south-east.
Open Ridges (LCT 38): Cardross/ Helensburgh	ZTV shows very intermittent and limited visibility from a minimum of approximately 5.8 km away. The sloping landform of the LCT is orientated strongly to the south-west and has little association with the Site, which lies to the east.
Open Ridges (LCT 38): Rosneath	ZTV shows very intermittent visibility from a minimum of approximately 12.5 km away. Landform is almost all orientated away from the Site, providing steeply sloped enclosure to Gare Loch.
Parallel Ridges - Loch Lomond & the Trossachs (LCT 255): Conic Hill	ZTV shows intermittent visibility from one part of the unit at a minimum of approximately 10.5 km away. Here, external influences are gained primarily from views across Loch Lomond, as seen at Viewpoint 19 (Conic Hill), rather than views across the Rugged Moorland Hills LCT within which the Site lies, and there is no specific association between the landscape and the Site. The landmark feature of Conic Hill would not be affected in views towards the Parallel Ridges LCT.

Landscape Character Type/Unit	Comment
Plateau Moor and Forest - Loch Lomond & the Trossachs (LCT 257)	ZTV shows visibility from the southern part of this receptor at a minimum of approximately 9.8 km away. This is a large-scale landscape that has internal influence of masts, transmission lines and forestry. Forestry cover would screen visibility of the Proposed Development from extensive areas. External influences are gained from Conic Hill and Loch Lomond, and there is no specific association with the Site. Landform is orientated west-south-west, while the Proposed Development lies south.
Raised Beach - Glasgow & Clyde Valley (LCT 197)	ZTV shows intermittent and limited visibility from a minimum of approximately 5.8 km away. This unit of Raised Beach Coast has been extensively modified by development, as noted in the NatureScot description; most specifically, "*Major road corridors, including those of the A82 and A8/ M8…have a significant impact on these areas, severing parts of the former beach, introducing noise, and changing people's perception of the coastal landscape*." Development has fragmented the LCT, which lacks notable intactness, cohesion and formal value. The Proposed Development would add a further external influence but would not be highly uncharacteristic, given the diverse range of baseline influences, both internal and external and of various scales, that are already apparent.
Ridges and Knolls with Estates (LCT 258)	ZTV shows limited and very intermittent visibility from a minimum of approximately 19 km away.
Rolling Farmland - Glasgow & Clyde Valley (LCT 200): Bishopbriggs	ZTV shows limited and intermittent visibility from a minimum of approximately 16 km away.
Rolling Farmland with Estates – Argyll (LCT 46): Helensburgh/Rosneath	ZTV shows very intermittent and limited visibility from a minimum of approximately 5.6 km away. The sloping landform of the LCT is orientated strongly to the south-west, towards Port Glasgow, Greenock and Gourock, and has little association with the Site, which lies to the east.
Rugged Moorland Hills (LCT 216): Campsie Fells/Kilsyth Hills	ZTV shows intermittent/very intermittent visibility from a minimum of approximately 13 km away. The closer visibility is very intermittent, with landform orientated away from the Proposed Development. The slightly more continuous area of visibility is gained from a minimum of approximately 18 km away. This LCT has strong innate character that is not reliant on external influences, and would not be materially affected by the Proposed Development.

Landscape Character Type/Unit	Comment
Rugged Moorland Hills (LCT 216): Renfrewshire Heights	ZTV shows intermittent visibility from a minimum of approximately 10 km away. Notable views from the Renfrewshire Heights are, as noted in the NatureScot description, "*south-west…out to the Argyll Coast and the Isle of Bute, as well as northwards over the Rosneath Peninsula and Cowal Peninsula to Holy Loch*". Landform of the closer areas that gain theoretical visibility of the Proposed Development is orientated broadly northwards, gaining these spectacular views, whereas the Site lies to the north-east, peripheral to the main outlook.
Rugged Upland Farmland (LCT 202): Neilston	ZTV shows intermittent visibility from a minimum of approximately 16 km away. There is no specific association between this LCT and the Site.
Steep Ridges and Hills (LCT 250)	ZTV shows intermittent/very intermittent visibility from a minimum of approximately 10.7 km away. There is no specific association between this landscape and the Site, and it gains the majority of external influence from the more eye-catching mountainous landscape that lies to the north and west, as seen at Viewpoint 26 (Beinn Dubh), as well as from its interface with Loch Lomond.
Steep Ridges and Mountains (LCT 34)	ZTV shows limited and very intermittent visibility from a minimum of approximately 18 km away.
Straths and Glens (LCT 253)	ZTV shows very intermittent visibility from a minimum of approximately 10.3 km away. There is no specific association between this landscape and the Site, and, as noted in the NatureScot description (emphasis added), "*Views are often open and extensive, focusing on the dramatic mountains which contain and backdrop these landscapes*". The Proposed Development would not be seen in the context of this dramatic landform and would not materially affect character.
Straths and Glens with Lochs (LCT 254)	ZTV shows very intermittent visibility from a minimum of approximately 19 km away.
Upland Glens - Loch Lomond & the Trossachs (LCT 252)	ZTV shows intermittent visibility from a minimum of approximately 14.1 km away. The landform of this LCT is enclosed and insular with no specific association to the Site, and is heavily wooded.
Urban Greenspace (LCT 199)	ZTV shows limited and intermittent visibility, partly blade only, from a minimum of approximately 16 km away. Intervening built development would screen much visibility of the Proposed Development.

Landscape Character Type/Unit	Comment
Not included in detailed assessment: no/negligible visibility of the Proposed Development.	
Parallel Ridges - Loch Lomond & the Trossachs (LCT 255): other areas	ZTV shows negligible visibility from a minimum of approximately 19 km away.
Rolling Forested Plateau (LCT 256)	ZTV shows negligible visibility from a minimum of approximately 14.4 km away.

Landscape Planning Designations

5.5.9 The Site itself is not covered by any known international or national landscape-related planning designations. It is, however, within the Kilpatrick Hills Local Landscape Area (LLA) as designated by WDC, and various designated areas are found elsewhere in the Study Area. These are shown on **Figure 5.4a** (to a 45 km radius) and **Figure 5.4b** (to a 20 km radius), and in conjunction with the blade tip ZTV on **Figure 5.11a** (to a 45 km radius) and **Figure 5.11b** (to a 20 km radius). There are three ways in which such designations are relevant to the LVIA.

- The presence of a designation indicates a recognised value that may increase the sensitivity of a landscape character receptor, viewpoint or visual receptor, and may therefore affect the significance of the effect on that receptor.
- The presence of a relevant designation can lead to the selection of a representative viewpoint within the designated area.
- Designated areas may be included as landscape character receptors so that the effects of the Proposed Development on these qualities of the landscape that have been accorded particular value can be assessed.

Loch Lomond and the Trossachs National Park

5.5.10 National Parks (NPs) are considered to be important on a national level. Policy 4c of NPF4 states that:

"*c) Development proposals that will affect a National Park, National Scenic Area, Site of Special Scientific Interest or a National Nature Reserve will only be supported where:*

i. The objectives of designation and the overall integrity of the areas will not be compromised; or

ii. Any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance."

5.5.11 The Loch Lomond and the Trossachs National Park (LLTNP) is a minimum of approximately 1.9 km to the north of the nearest turbine of the Proposed Development and is shown on the ZTV to gain intermittent theoretical blade tip visibility. This is gained primarily from the southern part of the LLTNP, with central, northern eastern and western areas gaining no or very limited theoretical visibility. The effects of the Proposed Development on LLTNP are assessed subsequently in this Chapter.

National Scenic Area

5.5.12 National Scenic Areas (NSAs) are considered to be important on a national level. The Town and Country Planning (National Scenic Areas) (Scotland) Designation Directions 2010 defines a National Scenic Area as an area "*of outstanding scenic value in a national context*." The relevant policy of NPF4 is Policy 4c, which is quoted above in relation to National Parks.

5.5.13 There are three NSAs within the 45 km Study Area:

- Kyles of Bute NSA;
- Loch Lomond NSA; and

- The Trossachs NSA.

5.5.14 The Kyles of Bute NSA lies a minimum of approximately 37 km to the west of the Proposed Development and is shown on the ZTV to gain no theoretical visibility. The Trossachs NSA is a minimum of approximately 23.5 km north-north-east of the Proposed Development and is shown on the ZTV to gain minimal theoretical visibility, restricted to localised high points, including Ben Venue (Viewpoint 31). While there may be localised visual influence, the very limited level of theoretical visibility and the distance of the NSA from the Proposed Development ensure that any effects on the integrity of the designated area as a whole would be not significant. The Kyles of Bute NSA and The Trossachs NSA are therefore not assessed in any further detail.

5.5.15 The Loch Lomond NSA is a minimum of approximately 3.7 km north of the nearest turbine of the Proposed Development and is shown on the ZTV to gain intermittent theoretical blade tip visibility, which diminishes towards the north of the NSA. Effects on the Loch Lomond NSA are assessed subsequently in this Chapter.

Garden and Designed Landscape

5.5.16 Gardens and Designed Landscapes (GDLs) are considered in Policy 7i, NPF4, which is concerned with 'Historic assets and places'. Policy 7i states that:

"*i) Development proposals affecting nationally important Gardens and Designed Landscapes will be supported where they protect, preserve or enhance their cultural significance, character and integrity and where proposals will not significantly impact on important views to, from and within the site, or its setting."*

5.5.17 As GDLs are considered as historic assets rather than landscape designations, effects on GDLs and their settings are considered in **Chapter 10: Cultural Heritage**. There are, however, LVIA viewpoints located at Balloch Castle GDL (Viewpoint 4) and Finlaystone House GDL (Viewpoint 13) due to the function of these locations as visitor attractions.

World Heritage Site

5.5.18 World Heritage Sites (WHS) are considered in Policy 7l of NPF4, which is concerned with 'Historic assets and places'. Policy 7l states that:

"l) Development proposals affecting a World Heritage Site or its setting will only be supported where their Outstanding Universal Value is protected and preserved."

5.5.19 As WHS are considered as historic assets rather than landscape designations, effects on WHS and their settings are considered in **Chapter 10: Cultural Heritage**.

Local Landscape Designations

5.5.20 There are a number of local landscape-related designations in the Study Area. These vary between local authorities and include LLAs and Special Landscape Areas (SLAs). Policy 4d of NPF4 states that:

"d) Development proposals that affect a site designated as a local nature conservation site or landscape area in the LDP will only be supported where:

i. Development will not have significant adverse effects on the integrity of the area or the qualities for which it has been identified; or

ii. Any significant adverse effects on the integrity of the area are clearly outweighed by social, environmental or economic benefits of at least local importance."

5.5.21 The sections below describe the relevant designations in each local authority area. Following this, Table 5.4 includes the preliminary assessment of the local landscape designations that are found in the 20 km radius Study Area and indicates which of them are considered to have potential to undergo a significant effect as a result of the Proposed Development. The designated areas that do have potential to undergo a significant effect are assessed in full subsequently in this Chapter. Designated areas that lie outwith a 20 km radius are discounted from the assessment as the preliminary assessment has indicated that these do not have potential to undergo a significant effect due to a combination of distance and lack of or limited visibility and influence of the Proposed Development.

Local Landscape Area (West Dunbartonshire Council)

5.5.22 The site lies within the Kilpatrick Hills LLA, as designated by WDC. WDC has published the 'Kilpatrick Hills Local Landscape Area Statement of Importance' (2015), which sets out information relating to the LLA.

5.5.23 The effects of the Proposed Development on the WDC Kilpatrick Hills LLA are assessed subsequently in this Chapter.

Local Landscape Area (East Dunbartonshire Council)

5.5.24 The south-eastern part of the Kilpatrick Hills lies within the East Dunbartonshire Council (EDC) area and is designated as an LLA. Kilpatrick Hills (LLA1) is one of five LLAs identified in EDC, with the others being Campsie Fells LLA, Glazert Valley LLA, Bardowie, Baldernock and Torrance LLA, and Bar Hill LLA. EDC 'Natural Environment Planning Guidance' (2018) provides information on the LLAs, including a Statement of Importance for each of them.

Local Landscape Area (Stirling Council)

5.5.25 The north-eastern part of the Kilpatrick Hills lies within the SC area and is designated as LLA. Kilpatrick Hills is one of eight LLAs identified in SC, of which six are within the 45 km study area for the Proposed Development; these are Keir, Kilpatrick Hills, Rednock, Southern Hills, Uamh Bheag, and Western Ochils LLAs. SC Draft Supplementary Guidance on Biodiversity & Landscape (2019) and Landscape Character Assessment (2019) provide citations for the LLAs.

Local Landscape Area (Inverclyde Council)

5.5.26 The Inverclyde Council area lies to the south-west of the Proposed Development. One LLA is identified in Inverclyde; West Renfrew Hills LLA.

Area of Panoramic Quality (Argyll and Bute Council)

5.5.27 Within the Argyll and Bute Council (A&BC) area the local landscape designation is Area of Panoramic Quality (APQ). There are seven APQs in the 45 km Study Area: Bute and South Cowal, East Loch Fyne (Coast), Loch Lomond (two separate areas), Loch Long (Coast), North Argyll and West Loch Fyne (Coast).

Site of Special Landscape Importance (Glasgow City Council)

5.5.28 Within the Glasgow City Council area the local landscape designation is Sites of Special Landscape Importance (SSLIs). There are a number of SSLIs in the Glasgow City area, almost all of which are small parks and woods that lie within or adjacent to built-up areas.

Table 5.4: Preliminary Assessment of Local Designations within the 20 km Study Area

Landscape Character Type/Unit	Comment
Included in detailed assessment due to level of influence and visibility of the Proposed Development	
Kilpatrick Hills LLA (WDC)	The Site lies within this LLA; there are likely to be direct and perceived effects.
Kilpatrick Hills LLA (EDC)	ZTV shows limited and very intermittent visibility from a minimum of approximately 5.3 km away.
Kilpatrick Hills LLA (SC)	ZTV shows intermittent visibility from a minimum of approximately 2.2 km away.
Southern Hills LLA (SC)	ZTV shows intermittent visibility from a minimum of approximately 8.8 km away.
Not included in detailed assessment: limited and/or distant visibility/influence of the Proposed Development and no specific association with the Site area.	
Bardowie, Baldernock and Torrance LLA (EDC)	ZTV shows limited and very intermittent visibility, partly blade only, from a minimum of approximately 13.2 km away. The special qualities of this LLA - drumlin landscape, variety of views (long southwards vistas across Glasgow, and views of the drumlin landscape/Campsie Fells) and land use and recreation – would not be significantly affected.
Campsie Fells LLA (EDC)	ZTV shows limited and very intermittent visibility from a minimum of approximately 12.7 km away. The areas of higher theoretical visibility are further away (a minimum of 17.5 km) from the Proposed Development. The overall landform orientation of the Campsie Fells is south, away from the Site.
Glasgow SSLIs	ZTV shows generally limited and intermittent/very intermittent theoretical visibility from a minimum of approximately 10 km away (Drumry Wood SSLI). The closer sites have negligible visibility of blades only, and visibility of the Proposed Development from all sites would be screened/filtered by intervening buildings and vegetation.
Glazert Valley LLA (EDC)	ZTV shows limited and intermittent visibility from a minimum of approximately 13.6 km away. The enclosed valley landform of this LLA is reflected in its relatively insular special qualities – broad valley landform; contrasting views (which are noted as being from the north and south and within and along the valley); and land use and

Landscape Character Type/Unit	Comment
	recreation – and these would not be significantly affected by the Proposed Development.
West Renfrew Hills LLA (Inverclyde)	ZTV shows very intermittent and limited visibility, partly blade only, from a minimum of approximately 19.5 km away.

Clyde Muirshiel Regional Park

5.5.29 Clyde Muirshiel Regional Park is covered by three local authorities, Inverclyde, North Ayrshire and Renfrewshire. The current priorities and objectives of the Regional Park are set out in Clyde Muirshiel Regional Park Strategy 2016-2021, with the priorities noted as:

- *"Leisure Activity and Health*
- *Education and Outdoor Learning*; and
- *Environmental Management"*

5.5.30 These priorities are expanded upon in the description of objectives. It is clear that the principal objectives of the Regional Park are concerned with the use and management of the area that lies within the Park boundary. This means that while the Proposed Development, which lies a minimum of approximately 12.8 km away from the Park, may be seen in views from the Park, it would not have direct effects within the Park and would not significantly affect the priorities and objectives of the Park. The effects of the Proposed Development on Clyde Muirshiel Regional Park are therefore not assessed in any further detail.

Country Parks

5.5.31 Scotland's environment website[6] states that "*Country Parks are set up by Local Authorities to provide open-air recreation facilities close to towns and cities. All the parks have a rural character and are managed primarily for informal recreation. Some have nature reserve areas and most have a visitor centre and ranger service to encourage and facilitate visitor understanding. Country Park is not a statutory designation*."

5.5.32 As stated, Country Parks are not a statutory designation and are not protected in scenic terms. However, Stirling Council has requested (email 1st March 2023) that consideration is given to potential visibility of the Proposed Development from Mugdock Country Park. The blade tip ZTV indicates intermittent theoretical visibility, often of limited numbers of turbines, from Mugdock Country Park from a minimum of just over 10 km away, while the hub height ZTV shows intermittent and limited theoretical visibility of hubs from the northern part of the Park. A comprehensive on-site review of visibility from the Park has indicated that a combination of limited theoretical visibility and further screening by woodland and forestry within and around the Park would ensure that actual visibility is likely to be very limited. A viewpoint location was sought but could not be identified due to lack of visibility.

[6] https://map.environment.gov.scot/sewebmap/

5.5.33 The level of actual visibility may vary in future with felling/replanting regimes of the surrounding forested areas, particularly in the western part of the Park, where there is extensive forest cover of surrounding areas. However, even with felling, visibility of the Proposed Development is likely to remain limited due to landform screening and filtering by other vegetation, including woodland within the Park.

5.5.34 Mugdock Country Park is not included in the detailed assessment due to the current lack of notable visibility of the Proposed Development and the difficulty in predicting how visibility could alter in the future with changing vegetation patterns.

Wild Land Areas

5.5.35 Wild Land Areas (WLAs), as shown on Figure 5.5, are identified on NatureScot's 2014 wild land mapping and referred to in Policy 4g of NPF4, which states (emphasis added) that:

"Development proposals in areas identified as wild land in the Nature Scot Wild Land Areas map will only be supported where the proposal:

i. will support meeting renewable energy targets; or,

ii. is for small scale development directly linked to a rural business or croft, or is required to support a fragile community in a rural area.

All such proposals must be accompanied by a wild land impact assessment which sets out how design, siting, or other mitigation measures have been and will be used to minimise significant impacts on the qualities of the wild land, as well as any management and monitoring arrangements where appropriate. Buffer zones around wild land will not be applied, and effects of development outwith wild land areas will not be a significant consideration."

5.5.36 The nearest WLA (WLA 04. Waterhead Moor–Muirshiel) lies a minimum of approximately 20 km to the south-west of the Proposed Development. WLAs have been discounted from the assessment due to the location of the Proposed Development outwith any WLA and the distance that lies between the Proposed Development and the nearest WLA.

Principal Visual Receptors

5.5.37 A number of visual receptors such as settlements and travel routes are considered in the assessment as views from them may be affected by the Proposed Development. It is not possible to consider every visual receptor in the Study Area due to the extent of ground that it covers and the assessment therefore concentrates on 'principal' visual receptors that may gain visibility of the Proposed Development. Principal visual receptors are shown on **Figure 5.6a** (45 km radius) and **Figure 5.6b** (20 km radius), and in conjunction with the blade tip ZTV on **Figure 5.13a** (45 km radius) and **Figure 5.13b** (20 km radius).

Settlements

5.5.38 Settlements considered in the assessment are those that lie within a 20 km radius of the site and are identified as Medium to Large Settlement Areas (National Records of Scotland 2018). Smaller settlements that are not included in this dataset but are recognised in local development plan mapping are also included. Settlements are shown on **Figure 5.6b** and in relation to the ZTV on **Figure 5.13b**. This 20 km radius has been

ascertained through a preliminary assessment of effects on views, which indicated that significant visual effects are very unlikely to arise beyond 20 km from the nearest turbine.

5.5.39 The pattern of settlements varies widely around the Study Area. The Kilpatrick Hills are generally undeveloped, and there are no settlement boundaries or parts of settlements within 2 km of the nearest turbine of the Proposed Development. Beyond 2 km, however, there is extensive settlement, including Dumbarton to the south and a contiguous group of settlements including Alexandria, Balloch, Bonhill and Renton to the west of the Proposed Development. This urban area to the west is referred to collectively as 'Vale of Leven' in the National Records of Scotland 2018 dataset, and is also referred to as such in this Chapter in order to avoid confusion between settlement boundaries.

5.5.40 To the south of the Clyde, beyond Dumbarton, are Erskine, Bishopton, Langbank and Kilmacolm, while to the south-west and south-east are Greenock and the north-western fringes of Greater Glasgow. To the west, beyond Vale of Leven, settlement is limited by topography, with towns such as Cardross, Helensburgh and Dunoon occupying the accessible coastal areas. To the north and east of the Proposed Development, settlement remains sparse with the smaller settlements of Killearn, Drymen, Strathblane and Balfron lying between approximately 8 km and 15 km of the Proposed Development.

5.5.41 Table 5.5 includes the preliminary assessment of settlements within a 20 km radius and indicates which of them are considered to have potential to undergo a significant effect.

Table 5.5: Preliminary Assessment of Settlements within the 20 km Study Area

Settlement	Comment
Included in detailed assessment due to level of influence and visibility of the Proposed Development	
Balfron	ZTV shows visibility from a minimum of approximately 12.8 km away.
Balmaha	ZTV shows visibility from a minimum of approximately 9.5 km away.
Bishopton	ZTV shows limited visibility from a minimum of approximately 7 km away.
Bridge of Weir	ZTV shows intermittent visibility from a minimum of approximately 13.4 km away. Some landform is orientated towards the Site.
Brookfield	ZTV shows visibility from a minimum of approximately 14.3 km away.
Croftamie	ZTV shows intermittent visibility from a minimum of approximately 5.7 km away.
Drymen	ZTV shows visibility from a minimum of approximately 8 km away.
Dumbarton	ZTV shows visibility from a minimum of approximately 2.9 km away.
Gartocharn	ZTV shows visibility from a minimum of approximately 5.3 km away.
Greater Glasgow (including Johnston, Kilbarchan, Linwood and Paisley)	ZTV shows limited and intermittent/very intermittent visibility from a minimum of approximately 13.5 km away.
Greenock/Port Glasgow	ZTV shows intermittent visibility from a minimum of approximately 9 km away.
Killearn	ZTV shows visibility from a minimum of approximately 9 km away.
Langbank	ZTV shows visibility from a minimum of approximately 7.2 km away.
Luss	ZTV shows visibility from a minimum of approximately 14 km away.
Vale of Leven (incorporating Alexandria, Balloch, Bonhill and Renton)	The closest urban area to the Proposed Development. ZTV shows visibility from a minimum of approximately 2.1 km away.

Settlement	Comment
Not included in detailed assessment: limited and/or distant visibility/influence of the Proposed Development	
Ardoch	ZTV shows intermittent theoretical visibility from a minimum of approximately 7 km away. Landform is orientated strongly southwards, across the Clyde, and buildings/ vegetation would provide screening of north-eastwards views towards the Site.
Barrhead	ZTV shows intermittent visibility from a minimum of approximately 19.2 km away.
Cardross	ZTV shows very limited and very intermittent visibility of blades only from a minimum of approximately 8.1 km away. Landform is orientated away from the Site.
Clachan of Campsie/ Haughhead	ZTV shows no visibility from Clachan of Campsie; limited and intermittent theoretical visibility from Haughhead, from a minimum of 16.5 km away.
Erskine	ZTV shows very limited and very intermittent visibility, almost all blade only, from a minimum of approximately 5.5 km away. The rising landform of the southern Kilpatrick Hills screens visibility, foreshortening northwards views from the settlement.
Gourock	ZTV shows intermittent visibility from a minimum of approximately 18.4 km away.
Greater Glasgow (including Bearsden, Bowling, Clydebank and Milngavie)	ZTV shows limited and intermittent/very intermittent visibility from a minimum of approximately 10 km away. The closer theoretical visibility is blade only and very intermittent/limited. Buildings and vegetation would further screen visibility.
Howwood	ZTV shows limited and intermittent visibility, partly blade only, from a minimum of approximately 18.5 km away.
Kilcreggan	ZTV shows very intermittent visibility, partly blade only, from a minimum of approximately 17.5 km away. Landform is orientated away from the Site.
Lennoxtown	ZTV shows very limited and very intermittent visibility, partly blade only, from a minimum of approximately 17 km away.
Rosneath	ZTV shows intermittent and very limited visibility of blades only, from a minimum of approximately 17.2 km away.

Settlement	Comment
Strathblane/Blanefield	ZTV shows very limited and very intermittent visibility, partly blade only, from a minimum of approximately 11.2 km away.
Torrance and Balderknock	ZTV shows very limited and very intermittent visibility, much of blade only, from a minimum of approximately 14.5 km away.
Not included in detailed assessment: no/negligible visibility of the Proposed Development	
Buchlyvie	ZTV shows negligible visibility, blade only, from a minimum of approximately 19 km away.
Garelochhead (inc. Faslane)	ZTV shows no visibility.
Fintry	ZTV shows no visibility.
Gartmore	ZTV shows no visibility.
Helensburgh (inc. Rhu/ Shandon)	ZTV shows no visibility.
Kilmacolm	ZTV shows negligible visibility, blade only, from a minimum of approximately 11 km away.
Milton of Campsie	ZTV shows negligible visibility, blade only, from over 20 km away.
Quarrier's Village	ZTV shows negligible visibility, almost all blade only, from a minimum of approximately 14 km away.

Routes

5.5.42 Routes include roads, walking routes, cycle routes, waterborne routes and railways.

5.5.43 There are a great number of **roads** in the 20 km study area, and it is not possible to accurately assess the effects on views from all of these individually. However, the effects on views from several specific roads are assessed individually, as described below, and broad conclusions are drawn from the viewpoint assessment (which includes viewpoints located on roads) as to the level of visibility and effect that the Proposed Development would have on the wider road network within a 20 km radius. The roads that are considered as specific receptors in the assessment are those within the 20 km study area that are identified as VisitScotland Tourist Routes, as users of these are likely to have a specific focus on the landscape, and the A82, which is included as the key access route into/through LLTNP.

5.5.44 **Railway lines** are included in the assessment of effects on routes. There are a number of lines within the study area, particularly around Glasgow, and, as with roads, it is not possible to accurately assess effects on them individually. The effects on views from the West Highland Line are assessed individually because of the sensitivity of the route due to its use by people who are likely have a specific focus on the landscape, its location in relation to the Proposed Development, and its extent across the Study Area.

5.5.45 Routes also include **long-distance recreational routes** and **core paths** within 20 km of the nearest turbine of the Proposed Development. These paths are shown on **Figure 5.6a** (45 km radius) and **Figure 5.6b** (20 km radius), and in conjunction with the blade tip ZTV on **Figure 5.13a** (45 km radius) and **Figure 5.13b** (20 km radius). The effects on views from core paths are not assessed individually due to the number of such routes, but, as with the roads, viewpoints located on core paths are included in the representative viewpoint list and broad conclusions are drawn from the viewpoint assessment as to the level of visibility and effect that the Proposed Development would have.

5.5.46 In addition to long-distance routes and core paths, there are a number of other paths in the study area, including Rights of Way (RoW), permissive paths and informal routes. In accordance with the Land Reform (Scotland) Act 2003, all parts of the Scottish countryside are accessible to all (subject to specific exclusions set out in the Act and as long as users behave responsibly) under statutory access rights. As access to the countryside is not restricted to specific routes, consideration of all path routes is not relevant to the LVIA, and the assessment focusses on those routes that are nationally recognised as long-distance routes or identified on Core Paths Plans. Paths other than core paths and national long-distance routes are therefore not considered in the LVIA.

5.5.47 **Waterborne routes** on Loch Lomond are used by a number of people for activities such as canoeing, boating, sailing, jet-skiing and swimming as well as by waterbuses and cruise boats. These waterborne users do not all follow fixed routes and it is possible that views may be gained by people using any part of the loch for recreation. The effects on views gained by waterborne users are therefore not assessed individually but, as with roads and core paths, viewpoints that represent views that may be gained by waterborne users are included in the viewpoint list and broad conclusions are drawn from the

viewpoint assessment as to the level of visibility and effect that the Proposed Development would have.

5.5.48 The routes in the Study Area that are considered as specific visual receptors due to various combinations of the criteria listed above are listed in Table 5.6. This table includes the preliminary assessment of relevant routes that lie within the 20 km radius study area and indicates which of them are considered to have potential to undergo a significant effect as a result of the Proposed Development. The routes that do have potential to undergo a significant effect are assessed in full subsequently in this chapter.

Table 5.6: Preliminary Assessment of Routes within the 20 km Study Area

Route	Comment
Included in detailed assessment due to level of influence and visibility of the Proposed Development	
Roads	
A82 (Glasgow to Inverness)	ZTV shows visibility from a minimum of approximately 3.5 km away.
Tourist Route: Clyde Sea Lochs Trail (A814/ B872/ B833)	ZTV shows intermittent visibility from a minimum of approximately 4.7 km away.
Long distance recreational routes (NB some stretches of paths follow shared routes)	
John Muir Way	ZTV shows intermittent visibility from a minimum of approximately 2.3 km away.
Rob Roy Way	ZTV shows intermittent visibility from a minimum of approximately 8.8 km away.
Scottish National Trail	ZTV shows intermittent visibility from a minimum of approximately 8.3 km away.
Three Lochs Way	ZTV shows intermittent visibility from a minimum of approximately 4.1 km away.
West Highland Way	ZTV shows intermittent visibility from a minimum of approximately 8.3 km away.
Cycle Routes	
National Cycle Route 7	ZTV shows intermittent visibility from a minimum of approximately 2.8 km away.
National Cycle Route 75	ZTV shows intermittent visibility from a minimum of approximately 11 km away.
National Cycle Route 755	ZTV shows intermittent visibility, partly blade only, from a minimum of approximately 12.2 km away.
Railways	
West Highland Line	ZTV shows intermittent visibility from a minimum of approximately 4.5 km away.
Not included in detailed assessment: limited and/or distant visibility/influence of the Proposed Development and no specific association with the Site area	

Route	Comment
National Cycle Route 754	ZTV shows very limited, very intermittent visibility, largely blade only, a minimum of approximately 12.4 km away. Buildings and vegetation would further screen visibility.
National Cycle Route 756	ZTV shows very limited, very intermittent visibility, largely blade only, a minimum of approximately 16 km away. Buildings and vegetation would further screen visibility.
Tourist Route: The Coig – The Shiel (B786/ B788/ B7054/ unclassified roads)	ZTV shows intermittent visibility from a minimum of approximately 13.2 km away. Vegetation and buildings provide extensive screening, and the Proposed Development would be seen peripherally in relation to the orientation of key views, which are focussed on the Firth of Clyde. The route is not widely signposted.
Not included in detailed assessment: no visibility of the Proposed Development	
n/a	

Viewpoints

5.5.49 The assessment of landscape and visual effects is informed by a series of viewpoints that represent visibility from LCTs, landscape planning designations and principal visual receptors around the study area. These include points of specific importance such as recognised viewpoints, designated landscapes, settlements and routes. NatureScot, LLTNPA, Stirling Council and WDC have been consulted regarding viewpoint locations, as described in **Table 5.2**, and the final list has been agreed with NatureScot and Stirling Council.

5.5.50 The viewpoint assessment is used to inform and illustrate the assessment of effects on landscape character as well as the assessment of effects on views and principal visual receptors. The viewpoints used in the assessment are described in Table 5.7.

5.5.51 Viewpoint locations are shown with the blade tip ZTV on **Figures 5.7a** (A3 size, 45 km radius), **5.7b** (A3 size, 20 km radius), **5.7c** (A1 size, 45 km radius) and **5.7d** (A0 size, 45 km radius) and with the hub height ZTV on **Figures 5.8a** (A3 size, 45 km radius), **5.8b** (A3 size, 20 km radius), **5.8c** (A1 size, 45 km radius) and **5.8d** (A0 size, 45 km radius).

Table 5.7: Viewpoints

Viewpoint	Grid reference Approximate distance to nearest turbine	Comments
1. Doughnot Hill	244728, 677663 1.54 km	High point within the Kilpatrick Hills, within the Kilpatrick Hills LLA.
2. Minor road (John Muir Way/NCR 7) north of site	242574, 683486 2.89 km	Viewpoint on John Muir Way, core path, and NCR7. Within LLTNP. Similar views gained by residential receptors.
3. A82 near Bellsmyre Roundabout (A813 junction)	239795, 676835 3.84 km	View from the A82 on the western edge of Dumbarton, representing view gained by local residents, workers and visitors.
4. Balloch Castle Country Park access road	239339, 682981 4.28 km	Viewpoint within Balloch Castle Country Park and GDL, on the access road. On NCR7 and John Muir Way and within LLTNP.
5. A811 Near Balloch	238621, 681630 4.32 km	View from the A811 in Alexandria/Balloch. Just within LLTNP (this road forms the Park boundary) the view would be gained by people arriving at/leaving LLTNP as well as local residents and workers.
6. The Whangie	249190, 680550 4.82 km	Viewpoint accessed from core path and popular with recreational users. Within the Kilpatrick Hills LLA. The viewpoint is located on the high ground that rises to the east of the geological feature of The Whangie.
7. Duncryne Hill	243560, 685927 5.18 km	Popular local high point with car parking provided and accessed by signposted core path. Within LLTNP.
8. Dumbarton Rock	239943, 674484 5.54 km	Elevated viewpoint that is recognised on OS mapping, signposted, and near Dumbarton Castle. Car parking provided.

Viewpoint	Grid reference Approximate distance to nearest turbine	Comments
9. Cameron House seaplane jetty	237626, 683214 5.85 km	Gathering point at seaplane jetty, near core path and within LLTNP.
10. Langbank	238490, 673258 7.37 km	Viewpoint on core path (on-street) that runs through Langbank, parallel to A82. A similar view would be gained by nearby residents.
11. Inchcailloch	241218, 690329 9.85 km	Viewpoint on core path on the island of Inchcailloch, accessible by frequent boats.
12. Endrick Viewpoint	243512, 688207 7.46 km	Signposted but unmarked viewpoint accessed by core path. Within LLTNP and Loch Lomond NSA.
13. Finlaystone Estate	236430, 673635 8.48 km	View from within 'Finlaystone Country Estate', visitor attraction and GDL.
14. WHW Near Drymen	248473, 687895 8.70 km	Viewpoint to the south-east of Drymen, just within LLTNP and on the WHW/core path.
15. Ben Bowie	234006, 682963 9.12 km	Hilltop viewpoint just within the southern edge of LLTNP and Loch Lomond NSA, accessed by a path. The John Muir Way and Three Lochs Way pass nearby.
16. Dumgoyne Hill	254154, 682761 10.11 km	Popular local high point accessed by core path. Within Southern Hills LLA.
17. Balmaha Harbour	241548, 690784 10.22 km	Viewpoint at Balmaha Pier, used by boat trips. Within LLTNP and Loch Lomond NSA.
18. Port Glasgow	233521, 673959 10.67 km	Elevated view from an elevated residential area in Port Glasgow.
19. Conic Hill	243042,692230 11.49 km	Popular destination within LLTNP and Loch Lomond NSA, WHW/core path runs close by.

Viewpoint	Grid reference Approximate distance to nearest turbine	Comments
20. Waterbus	237941, 692615 13.11 km	Viewpoint on Loch Lomond, taken on cruise boat. Within LLTNP and Loch Lomond NSA.
21. Bat a Charchel	249029, 692077 12.60 km	Elevated viewpoint near a transmission mast on NCR7 and Rob Roy Way (also a minor road). On the eastern edge of LLTNP.
22. Balfron Cemetery	254154, 689225 13.31 km	Viewpoint in Balfron Cemetery, represents views gained from the settlement of Balfron.
23. Luss Campsite	236081, 693419 14.62 km	Viewpoint on shore of Loch Lomond at Luss campsite. Within LLTNP and Loch Lomond NSA.
24. Sallochy	238717, 694941 14.98 km	Open view from rocky shoreline of Loch Lomond, reached by informal path off WHW. Within LLTNP and Loch Lomond NSA.
25. Lyle Hill, Greenock	225690, 677135 17.23 km	Elevated viewpoint at trig point on Greenock golf course.
26. Beinn Dubh	233595, 695375 17.55 km	Hilltop north-west of Luss, within LLTNP and the periphery of Loch Lomond NSA. On the Beinn Dubh - Glen Striddle horseshoe walk.
27. Inverbeg	234698, 697827 19.20 km	Viewpoint at Inverbeg adjacent to West Loch Lomond cycle path.
28. Misty Law	229540, 661975 21.77 km	Popular walking destination in the Clyde Muirshiel Regional Park. On a recognised walking route, within WLA 04 Waterhead Moor–Muirshiel and on the edge of an SLA.
29. Ben Lomond	236707, 702857 23.13 km	Popular Munro for recreational receptors, within LLTNP and Loch Lomond NSA and accessed by core path.
30. Dunoon	218237, 677693 24.60 km	Viewpoint on the waterfront in Dunoon, on a core path. Similar views gained by residents.

Viewpoint	Grid reference Approximate distance to nearest turbine	Comments
31. Ben Venue	247731, 706119 25.72 km	Popular Graham for recreational receptors. Within LLTNP and The Trossachs NSA, accessed by a core path.
32. Tarbet	232307, 704804 26.54 km	Viewpoint on A82 to the east of Tarbet, within LLTNP and Loch Lomond NSA.
33. Ben Ledi	256247, 709770 31.69 km	Popular Corbett within LLTNP and WLA 07 Ben More-Ben Ledi, accessed by core path.

5.5.52 The night-time visual assessment has been informed by dawn/dusk photomontages for the following five viewpoint locations, which have been selected from the LVIA viewpoints in agreement with NatureScot (email 3rd April 2023). These viewpoints have been selected for night-time assessment on the basis that they are locations where people may be present at dawn/ dusk, and where baseline conditions are likely to be relatively dark.

- Viewpoint 2: Minor road (John Muir Way/NCR 7) north of site (photomontages shown on **Figures 5.17e** and **f**);
- Viewpoint 14: WHW Near Drymen (**Figures 5.29g** and **h**);
- Viewpoint 17: Balmaha Harbour (**Figures 5.32h and i**);
- Viewpoint 22: Balfron Cemetery (**Figures 5.37f** and **g**); and
- Viewpoint 23: Luss Campsite (**Figures 5.38f** and **g**).

Cumulative Wind Farm Developments

5.5.53 Cumulative effects are defined in guidance (NatureScot, 2021)[7] as the "*combined effect of a set of developments*" and may arise where a landscape receptor, visual receptor or view is affected by more than one wind farm. This occurs where the study areas for two or more wind farms overlap so that both are experienced at proximity where they may have a greater incremental effect, or where wind farms may combine to have a sequential effect, irrespective of any overlap in visibility.

Wind Farm Sites Included in the Cumulative Assessment

5.5.54 In accordance with best practice guidance (NatureScot, 2021), the cumulative assessment initially covers a radius of 60 km from the Proposed Development, and includes wind farms that are operational, consented, and planning or Section 36 applications. Scoping stage wind farms are not included unless they are of notable relevance or if their application date is anticipated to be prior to or around the same time as the application for the Proposed Development. In this case, no scoping sites are considered to be relevant for inclusion in the cumulative assessment.

5.5.55 The cumulative situation changes frequently as applications are made, refused or withdrawn, and the layouts of submitted application wind farms are changed, and it is therefore necessary to decide on a cut-off date when the sites and layouts to be included are fixed. The 24th February 2023 has been used as a cut-off for this cumulative assessment, and any changes in the cumulative situation after this date are not incorporated in the assessment.

5.5.56 Wind farm sites and single turbines that are over 50 m to tip height that lie within a 60 km radius of the Proposed Development are shown on **Figure 5.14a**. Before the cumulative assessment is carried out, it is necessary to ascertain which of these sites will be relevant to the cumulative assessment. A wind farm is considered to be relevant if the addition of the Proposed Development to this and other wind farms could result in a significant cumulative effect on a landscape character receptor, view or visual receptor. Guidance (NatureScot, 2021) suggests that the study area for detailed cumulative assessment will

[7] NATURESCOT (2021). Guidance - Assessing the cumulative landscape and visual impact of onshore wind energy developments

generally extend to a "*35 km radius from the outer boundary of proposal but may be extended due to the nature of likely cumulative effects identified above. The study area may need to be wider for larger turbines*".

5.5.57 In the case of the Proposed Development, this radius has been increased to 45 km due to the Study Area radius of the Proposed Development itself being 45 km. Wind farm sites outwith the 45 km radius may be included where, for example, a distant wind farm would be seen from the same route as the Proposed Development and the visibility of both sites could lead to significant cumulative effects. In the case of the Proposed Development, no wind farms that lie beyond 45 km away are considered to be relevant to the assessment. Single turbines and those under 50 m to blade tip are also excluded from the assessment.

5.5.58 Table 5.8 lists the wind farms that are considered in the detailed cumulative assessment, within 45 km of the Proposed Development (as shown on **Figure 5.14b**). Single turbines and those below 50 m tip height are not included in the detailed assessment in line with NatureScot guidance (NatureScot, 2021), which states that "*due to the very large number of small scale (three or fewer wind turbines) proposals in the planning system in some areas of Scotland it may not be practical to include all of these in the search area base plan*". Cumulative sites that lie up to 45 km away from the Proposed Development are shown in the wirelines for each of the representative viewpoints in **Figures 5.16** to **5.48**. The cumulative wirelines are produced in increments of 90º and cover a variable width of the view, ranging from 90º to 360º, dependent on the horizontal field of view that has been used for each viewpoint. In some instances, wind farms appear in the wirelines although they are beyond their own study area radius (i.e. the radius that is appropriate for the turbine tip height of the wind farm in accordance with NatureScot guidance (2021)). Where this occurs, the wind farm is discounted from the assessment as it is considered to lie beyond the radius within which it may contribute to a significant cumulative effect.

5.5.59 Cumulative ZTVs that show the visibility of the relevant sites along with that of the Proposed Development have been included for relevant wind farms (**Figures 5.15a** to **5.15bb**). In some cases, where wind farms have extensions of the same status, or where wind farms form an integrated group of the same status, wind farms are grouped together in the cumulative ZTVs. Where this is the case, it is noted in the table below.

Table 5.8: Cumulative Wind Farms within 45 km Radius

Wind Farm Name	Status	Number of Turbines	Turbine Dimensions	Approx. Distance to Proposed Development
Ardoch + Over Enoch (cumulative ZTV Group A)	Operational	5 turbines	110 m to tip	31 km
Ardrossan + Extension (cumulative ZTV Group B)	Operational	15 turbines	100/104 m to tip	37 km
Blantyre Muir + Extension	Operational	6 turbines	125 m to tip	35 km
Boghead Farm	Operational	2 turbines	67 m to tip	39 km
Braco	Consented	3 turbines	76 m to tip	23 km
Braes of Doune	Operational	36 turbines	100 m to tip	41 km

Wind Farm Name	Status	Number of Turbines	Turbine Dimensions	Approx. Distance to Proposed Developme nt
Burnhead	Operational	13 turbines	126 m to tip	45 km
Calder Water (cumulative ZTV Group A)	Operational	13 turbines	147 m to tip	40 km
Clachan Flats	Operational	9 turbines	93 m to tip	42 km
Corlic Hill/ Inverclyde	Operational	8 turbines	110 m to tip	14 km
Craigengelt	Operational	8 turbines	125 m to tip	28 km
Creag Dhubh	Consented	9 turbines	144.4 m to tip	38 km
Cruach Mhor	Operational	35 turbines	71 m to tip	39 km
Dewshill	Application	3 turbines	149.9 m to tip	42 km
Earlsburn/ Earlsburn North	Operational	24 turbines	110/115 m to tip	24 km
Earlsburn Extension	Application	11 turbines	180 m to tip	26 km
Easter Drumclair Wood	Consented	2 turbines	150 m to tip	43 km
Forrestfield Farm	Consented	4 turbines	125 m to tip	44 km
Greendykeside (cumulative ZTV Group R)	Operational	2 turbines	100 m to tip	38 km
Greengairs + Greengairs East Resubmission (cumulative ZTV Group R)	Under construction	17 turbines	125/149.9 m to tip	36 km
GSK Shewalton	Consented	2 turbines	149 m to tip	43 km
Hartwood	Consented	7 turbines	126.5 m to tip	44 km
Kelburn (cumulative ZTV Group B)	Operational	14 turbines	100 m to tip	30 km
Low Drumclog	Application	3 turbines	179.9 m to tip	43 km
Middleton (cumulative ZTV Group V)	Operational	6 turbines	105 m to tip	26 km
Millour Hill + Extension (cumulative ZTV Group B)	Operational	8 turbines	125 m to tip	30 km
Neilston (cumulative ZTV Group V)	Operational	4 turbines	110 m to tip	25 km
Priestside Farm	Operational	2 turbines	67 m to tip	12 km
Rigmuir	Consented	3 turbines	149.9 m to tip	36 km
Rosehill Farm (cumulative ZTV Group Z)	Operational	3 turbines	100 m to tip	42 km

Wind Farm Name	Status	Number of Turbines	Turbine Dimensions	Approx. Distance to Proposed Developme nt
Shelloch	Consented	5 turbines	180 m to tip	23 km
Shewalton Moss/Glaxo	Operational	2 turbines	110 m to tip	43 km
Sneddons Law (cumulative ZTV Group A)	Under construction	15 turbines	130 m to tip	36 km
Sorbie	Consented	3 turbines	104.3 m to tip	38 km
Tod Hill (cumulative ZTV Group Z)	Operational	4 turbines	125 m to tip	39 km
Wardlaw Wood (cumulative ZTV Group B)	Operational	6 turbines	125 m to tip	31 km
West Browncastle (cumulative ZTV Group A)	Operational	12 turbines	126.5 m to tip	39 km
Whitelee + Extensions (cumulative ZTV Group A)	Operational	215 turbines	110/140 m to tip	31 km

5.6 Mitigation

5.6.1 The nature of landscape and visual effects means that landscape and visual mitigation is embedded into the design of the Proposed Development. The site selection rationale and the iterative design process is described in **Chapter 2: Proposed Development** and in the **Design Statement** for the Proposed Development.

5.7 Assessment of Likely Effects

5.7.1 The following sections include the assessment of effects on the landscape and visual receptors that have been identified in Section 5.6, above, as having potential to undergo a significant effect as a result of the Proposed Development.

5.7.2 This assessment is presented in three categories:

- effects on physical elements;
- effects on landscape character; and
- assessment of effects on views.

5.7.3 The assessment of cumulative effects and night-time effects is incorporated into these categories where relevant.

5.8 Effects on Physical Elements

5.8.1 The first category of effects covered in the assessment is effects on physical elements, which are direct effects on the fabric of the site such as changes to ground cover. Physical effects are found only on the site, where existing landscape elements may be removed or altered by the Proposed Development. In this case there are two elements involved: rough grassland/moorland and woodland. It should be noted that these landscape

elements are assessed with reference to their contribution to the landscape resource rather than in ecological terms.

Rough Grassland/Moorland

5.8.2 The construction of access tracks, turbine foundations, hard standings, and other infrastructure would require the removal of rough grassland/moorland from the Site.

Baseline and Sensitivity

5.8.3 The rough grassland/moorland that covers the Site is typical of the upland area within which the Proposed Development lies. The value of this element is medium; it is a relatively widespread ground cover that is not rare or specifically recognised for its value but it is a characteristic element of the LCT that covers the Site and surrounding areas; the NatureScot 2019 description of this LCT notes that "*Landcover on these hills is dominated by moorland plant communities including heather (particularly on the Renfrew Heights and Kilpatrick Hills)…"* The susceptibility to change of this landscape element is medium-low due to the potential for reinstatement and restoration of the ground cover following construction and at the end of the lifetime of the Proposed Development. The combination of a medium value and medium-low susceptibility to change of the landscape element results in a **medium** sensitivity for rough grassland/moorland ground cover.

Magnitude of Change

5.8.4 The area of rough grassland/moorland to be removed or disturbed in the construction and operation of the Proposed Development is limited in relation to the total area found on the Site and beyond, and the magnitude of change of this removal is **medium-low**.

Significance of the Effect

5.8.5 The effect of the Proposed Development on rough grassland/moorland would be **not significant** due to the medium sensitivity of the landscape element and the medium-low magnitude of change on it.

Woodland

5.8.6 The construction of the main Site access track would require the removal of approximately 0.06 hectares (ha) of woodland from the Site.

Baseline and Sensitivity

5.8.7 The area of woodland that would be affected by the Proposed Development is part of Barr Wood, which is located on the west-facing slopes of Auchenreoch Muir above Murroch Farm. The affected area is a shelterbelt woodland formed of sparse downy birch, Scots pine, and willow that varies from approximately 20 - 30 m in width and is bounded on either side by primarily mature beech trees (which appear to be the remnants of a former overgrown beech hedge).

5.8.8 The value of the woodland to be removed is medium-high. The woodland is covered by the Ancient Woodland Inventory (AWI), includes mature trees, and provides characterisation of the upland landscape. It is, however, a woodland in decline, with no

young/immature trees, several windblown trees, and several trees show signs of basal decay.

5.8.9 The susceptibility to change of this landscape element is medium-low due to the overall poor condition of the area of proposed removal and the potential for mitigation. The access track would be micro-sited to minimise the final number of trees to be felled, and up to 111 ha of compensatory new native woodland planting would be implemented in accordance with good forestry practice (see **Technical Appendix 6.6**).

5.8.10 The combination of the medium-high value and medium-low susceptibility to change of the landscape element results in a **medium** sensitivity for the woodland.

Magnitude of Change

5.8.11 The area of woodland that would be removed for the Proposed Development extends to approximately 0.06 ha and includes up to 31 trees (28 mature/semi-mature beech hedgerow trees and three mature downy birch). This area/number of trees is very limited in relation to the total area of woodland found in the Murroch Glen area and the magnitude of change of this removal is considered to be **low**.

Significance of the Effect

5.8.12 The effect of the Proposed Development on woodland would be minor and **not significant** due to the medium sensitivity of the landscape element and the low magnitude of change upon it.

5.9 Effects on Landscape Character

Introduction

5.9.1 Landscape character is the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and the way that this pattern is perceived. Effects on landscape character occur both on the site, where the pattern of elements that characterise the landscape would be directly altered by the addition of the Proposed Development; and off-site, where visibility of the Proposed Development may alter the way in which this pattern of elements is perceived. For example, if the Proposed Development is visible from an area of Lowland Hill Fringes – Central LCT, the perceived experience of this LCT may be altered as visibility of the Proposed Development introduces new external characteristics and influence.

5.9.2 It should be noted that levels of magnitude of change on landscape character receptors are generally found to be lower than the magnitude of change on viewpoints that lie within these landscape character areas. This means that if a viewpoint is assessed to undergo a medium-high magnitude of change, for example, it does not necessarily follow that the landscape character area within which it lies would undergo a medium-high magnitude of change, but may undergo a medium magnitude of change instead.

5.9.3 This is because while viewpoints are usually specifically selected to gain a direct view towards the Proposed Development, the landscape character of a receptor is not necessarily determined so specifically by the outlook over the Proposed Development, and there are many other considerations, both visual and perceptual, that may combine to give an area its landscape character. This means that the Proposed Development may

have a lesser degree of influence on landscape character than on a specific view. This is particularly true of areas that lie slightly further away from the Proposed Development. In the immediate vicinity of the site the magnitude of change on viewpoints and landscape character is likely to be similar, but beyond this, the magnitude of change on landscape character is often found to diminish more rapidly as the influence of the turbines is subsumed in the many other influences on landscape character. Viewpoints are referred to in this assessment as they give a useful indication of the appearance of the Proposed Development from specific locations within the various landscape receptors, but the level of magnitude of change may vary between the viewpoint assessment and the landscape character assessment.

5.9.4 This assessment considers both the effects of the Proposed Development itself, in relation to the baseline characteristics of landscape receptors, and the cumulative effects that may arise from the addition of the Proposed Development to other wind farms. The assessment of the effects of the Proposed Development itself is carried out in relation to the baseline characteristics of landscape receptors, which does, where relevant, include consideration of operational and under construction baseline wind energy development. The cumulative assessment considers various possible scenarios of other wind farm development, including operational, under construction, consented and application stage wind farms. The application stage wind farms are considered on a case-by-case basis for each landscape receptor as there is no certainty as to whether or not they would form features in the landscape in the future.

5.9.5 The assessment of effects on landscape character covers two groups of receptors, LCTs and landscape planning designations. These effects are assessed below, with LCTs first, followed by designations. LCTs are assessed in alphabetical order other than the main host LCT (Rugged Moorland Hills (LCT 216): Kilpatrick Hills unit), which is assessed first.

Rugged Moorland Hills (LCT 216): Kilpatrick Hills

Baseline and Sensitivity

5.9.6 The Site lies within the Kilpatrick Hills unit of Rugged Moorland Hills LCT (LCT 216). There are three incidences of this LCT in the 45 km study area: the Kilpatrick Hills, the Renfrewshire Heights, and the Campsie Fells/Kilsyth Hills. These relatively low-lying but prominent hills form a series of rugged uplands that intermittently enclose the north-western parts of the Clyde Basin. The key characteristics of Rugged Moorland Hills LCT - the majority of which are relevant to the Kilpatrick Hills unit - are described as follows by NatureScot.

- *"Large-scale simple landscape.*
- *Distinctive upland character created by the combination of elevation, exposure, rugged landform, including a fault line and cliffs, moorland vegetation and the predominant lack of modern development, emphasised by the proximity to low-lying valleys and coastal areas.*
- *Undeveloped skylines and striking views to the Glasgow conurbation.*
- *Extensive man-made reservoirs and smaller natural lochs.*
- *Important backdrop to neighbouring settled landscapes, creating a unique sense of place.*
- *Sparse settlement and predominant lack of modern development.*

- *Presence of archaeological sites on hilltops and sides, and on lower ground.*
- *Sense of apparent naturalness, wild character and remoteness which contrasts strongly with the farmed and developed lowland areas.*
- *Diversity of landscape experience."*

5.9.7 The description also includes the following comments relating to the Kilpatrick Hills.

"The Kilpatrick Hills rise relatively steeply from the River Clyde shores and the Leven Valley. The landform comprises a series of rounded, locally craggy summits set within an undulating plateau, crossed by a series of burns. Summits range in height between about 400 metres in the Kilpatrick Hills to 500 metres in the Renfrew Heights and 580 metres in the Campsie Fells."

"An area in of the Lowland Hill Fringes – Central, around Aucheneden Hill and the Whangie, has a close relationship with the Kilpatrick Hills within the Rugged Moorland Hills, and is included in the recently designated Kilpatrick Hills (Stirling) Local Landscape Area."

"Landcover on these hills is dominated by moorland plant communities including heather (particularly on the Renfrew Heights and Kilpatrick Hills) and rough grasslands with extensive areas of blanket bog on the Kilpatrick Hills…Semi-natural and native woodland cover is largely limited to the narrow burn corridors in the Kilpatrick Hills."

"Commercial forestry is found in all three areas…In the Kilpatricks, conifer forests are found mainly on the rolling plateau area, though woodland does extend down the slope towards Bowling on the north side of the Clyde."

"Pylons across the Kilpatrick and Renfrewshire Heights have a local influence, and planes go quite low over the hills in preparation for landing at Glasgow Airport."

"The Kilpatrick Hills form a key element in the setting and overall landscape composition in views to and from the south-eastern part of Loch Lomond and the Trossachs National Park and Loch Lomond National Scenic Area."

5.9.8 These characteristics are generally applicable to the Site. However, the "*sense of apparent naturalness, wild character and remoteness"* of the northern part of the Kilpatrick Hills has been affected by the Auchencarroch Recycling and Resource Management Facility, which lies approximately 500 m to the north of the nearest turbine in the Proposed Development. This facility has directly introduced a new landscape feature of large-scale human development into the Kilpatrick Hills as well as affecting perceived naturalness through visibility of the facility.

Viewpoint 1 lies within this receptor and gives a good overview of the Site area, clearly showing its relationship to the wider Kilpatrick Hills. Other nearby elevated viewpoints that illustrate the character of the Kilpatrick Hills unit include Viewpoint 2 (Minor road north of site), Viewpoint 6 (The Whangie), and Viewpoint 7 (Duncryne Hill).

5.9.9 There are no wind farms within this unit of Rugged Moorland Hills. There is theoretical visibility of two operational wind farms that lie within 20 km of the LCT; Corlic Hill (Inverclyde) and Priestside Farm. These sites are both theoretically intermittently visible from the southern and western parts of the receptor, seen from between 9 km and 16 km away. The small turbines at Priestside Farm have very limited influence, and Corlic Hill (Inverclyde) also has a limited influence due to its distance and the modest scale of the turbines. The highest type of visibility of both sites can be seen at Viewpoint 1, which is

assessed as having a not significant cumulative effect. There are no under construction or consented sites within 20 km, and those that lie beyond 20 km away would not have potential to contribute to a significant cumulative effect.

5.9.10 The Kilpatrick Hills unit of Rugged Moorland Hills LCT has a medium-high value. It is covered by the local designation of the Kilpatrick Hills LLA and, to the north, overlooks LLTNP and the Loch Lomond NSA. The contrast of this unit with other nearby landscapes contributes to the medium-high value, as it provides a landscape resource that differs from its surroundings, particularly built-up areas that lie to the west, south and south-east, and is largely intact with a sense of place and scenic qualities. The recreational value of the Kilpatrick Hills also contributes to its value, as there are numerous core paths and a short section of the John Muir Way within the unit. Value is, however, tempered to a medium-high level by the reduced intactness in parts of the unit, arising from the presence of elements of human development within the landscape that have detracted from its inherent attributes. The susceptibility of the receptor is medium-high. This is a distinctive, generally undeveloped, remote landscape with which the Proposed Development would contrast. However, the landscape is affected by internal and external baseline human influences, including forestry, the Auchencarroch Recycling and Resource Management Facility, and the built-up areas that lie to the south, west and south-west. The large scale and simplicity of the landform and landscape patterns also tempers susceptibility.

5.9.11 The combination of a medium-high susceptibility and medium-high value of the landscape results in a **medium-high** sensitivity for the Kilpatrick Hills unit of Rugged Moorland Hills LCT.

Magnitude of Change

5.9.12 All of the turbines and the majority of the infrastructure (with the exception of the Site access) of the Proposed Development are located within the northern part of this unit, and the area covered by the Site would therefore undergo direct physical effects from the construction and operation of the turbines, access tracks and hardstandings, borrow pit, construction compound and substation compound, as well as perceived effects that arise through visibility of the Proposed Development.

5.9.13 The ZTV indicates that this unit of Rugged Moorland Hills LCT gains intermittent theoretical visibility of the Proposed Development from on the Site itself up to a maximum of approximately 8.5 km away, in the south-eastern corner. The level of visibility is highest on and around the Site, tailing away as the ground drops around the edges of the hills. This reduction in visibility is particularly noticeable in the south and south-eastern areas of the unit, where steeply rising slopes and strongly defined landform greatly restrict visibility. There are also small areas of no or very limited theoretical visibility within the central part of the unit where valleys preclude visibility. The southern edge of the receptor gains no theoretical visibility.

5.9.14 Magnitude of change would vary within this unit. The site area and its vicinity would have a **high** magnitude of change due to both direct physical effects on the landscape and perceived effects that rise through visibility of the Proposed Development. Viewpoint 1 (Doughnot Hill) lies within this area and illustrates the high magnitude of change of the Proposed Development, which arises from the following considerations.

- The Site is an upland moorland landscape with no apparent evidence of large-scale built form or development. The presence of the Proposed Development

(including associated infrastructure) would result in a direct effect to this baseline character through the addition of new, unfamiliar features, primarily the turbines, providing a highly visible, prevailing influence and introducing uncharacteristic elements in terms of movement, materials, colour, and structures.

- In addition to the physical effects, there would be a perceptual alteration to the character of the landscape setting, arising from visibility of the colour, movement, scale, texture and form of the turbines, which would be uncharacteristic of the landscape.
- The undeveloped skyline of the LCT and the backdrop that it provides to neighbouring settled landscapes, both characteristics of this LCT as noted in the NatureScot description, would be altered by the addition of the turbines.
- The "*sense of apparent naturalness, wild character and remoteness*" of the LCT would be reduced directly and perceptually by the Proposed Development.

5.9.15 While the magnitude of change on the Site and its close vicinity would be high, there are factors that mitigate the level of change to some extent.

- The "*large-scale simple landscape"* of the LCT and lack of enclosure that characterise the receptor prevent uncomfortable scale comparisons and would provide an appropriate receiving environment for the Proposed Development.
- The location of the Proposed Development in a part of the receptor that lacks the more complex, rugged and eye-catching landform found in peripheral parts of the Kilpatrick Hills would also prevent uncomfortable scale comparisons.
- The characteristic "*striking views to the Glasgow conurbation*" that are gained from elevated southern parts of the Kilpatrick Hills would not be affected due to the location of the Proposed Development in the northern part of the receptor.
- The landscape of the Kilpatrick Hills is affected by existing development, including transmission lines, forestry and "*extensive man-made reservoirs and smaller natural lochs*",, and this reduces the contrast between the Proposed Development and its landscape context. .
- The location of the Proposed Development within the interior of the Kilpatrick Hills unit would ensure that there is a buffer of this landscape type around the turbines, so they do not appear to extend up to the boundary of the receptor but are in a broader area of consistent landscape type.

5.9.16 The extent of the high magnitude of change would vary around the Proposed Development. To the north, east and west of the Proposed Development, the high level of change would extend to the boundary of the receptor, which is a maximum of just over 3 km from the nearest turbine. To the south and south-east, however, the unit is more extensive, and beyond around 3 km away, is shown to have very intermittent and often limited theoretical visibility of the Proposed Development. Where there is visibility, a **medium-high** or **medium** magnitude of change would extend very intermittently up to a maximum of approximately 7.5 km away. Beyond approximately 7.5 km away, the maximum magnitude of change would be **low**.

5.9.17 This reduction in the level of change results from various factors including the reduction in the extent of the setting that would be affected by the Proposed Development so that the turbines become a less notable external influence on landscape character; the increased distance between the Proposed Development and these parts of the receptor; and the increasing importance of other influences on landscape character as the Proposed Development decreases in influence. There would also be no physical effects

on the receptor outwith the Site itself, and effects on landscape character would arise solely from visibility and perceived influence of the Proposed Development.

Significance of the Effect

5.9.18 The effect of the Proposed Development on the landscape character of the Kilpatrick Hills unit of Rugged Moorland Hills LCT would vary. The effect on southern and south-eastern parts of the receptor would be **not significant** due to lack of or very limited visibility and influence of the Proposed Development. There would, however, be a major or major/moderate and **significant** effect on the Site area itself and some closer parts of the receptor that gain visibility of the majority of the Proposed Development, due to a combination of the medium-high sensitivity of the receptor and the high, medium-high or medium magnitude of change that arises from the direct presence of the Proposed Development on the Site itself and the level of visibility and influence on the nearby surrounding areas. This significant effect would generally extend up to approximately 3 km away from the nearest turbine to the north, east and west and a maximum of 7.5 km to the south and south-east.

Cumulative Effect

5.9.19 There is theoretical visibility of the operational wind farms at Priestside Farm and Corlic Hill (Inverclyde) from this receptor, as described above. There are no application stage wind farms within 20 km, and theoretical visibility of those sites that lie beyond this distance would not contribute to a significant cumulative effect. One scenario is therefore considered in the cumulative assessment; the addition of the Proposed Development to the operational sites at Corlic Hill (Inverclyde) and Priestside. In this scenario, the addition of the Proposed Development would have a **low** cumulative magnitude of change, restricted to this level by the limited and intermittent visibility of the operational wind farms, particularly bearing in mind the modest height of the turbines (67 m and 110 m to tip); the distance of these wind farms from the receptor; the fact that only two operational wind farms would contribute to the cumulative effect; and their appearance together in the same aspect of the setting to the receptor.

5.9.20 The cumulative effect in the scenario of operational wind farms would be **not significant** due to a combination of the factors that lead to the low cumulative magnitude of change and the medium-high sensitivity of the receptor. No other cumulative scenarios are relevant.

Lowland Hill Fringes – Central (LCT 150): Cameron Muir/Stockie Muir and Mugdock

Baseline and Sensitivity

5.9.21 The Cameron Muir/Stockie Muir and Mugdock unit of Lowland Hill Fringes – Central LCT covers the area to the east, north-east and south-east of the Proposed Development, adjacent to the Kilpatrick Hills unit of Rugged Moorland Hills LCT. There are six incidences of this LCT in the 45 km study area, of which this unit is the westernmost. The relevant key characteristics of Lowland Hill Fringes – Central LCT are described as follows by NatureScot (those that do not relate to this unit have not been included).

- *"Undulating, rolling topography rising to larger scale hill landforms.*

- *Gradation of topography creates transitional landscape linking the open hills of more pronounced relief and the neighbouring settled valley landscapes.*
- *Diverse landcover of arable and open improved and unimproved pastureland, interlocks with woodland and forestry, with some estate landscapes with frequent beech hedgerows and shelterbelts.*
- *High proportion of woodland cover including large coniferous blocks, mixed shelterbelts and broadleaf tree clumps.*
- *Scattered residential development and small settlements on slopes, with recent expansion in some areas.*
- *Minor roads.*
- *Concentration of small water bodies, reservoirs and small watercourses.*
- *Hill fringes offer important panoramic views to neighbouring hills, valleys and straths, as well as large settlements such as Glasgow and Falkirk.*
- *A sense of remoteness and isolation in some areas despite proximity to settlement and relatively limited geographic extent."*

5.9.22 The description includes the following relevant comments in relation to the Cameron Muir/ Stockie Muir and Mugdock unit.

"The Cameron Muir/Stockie Muir is dominated by a broad, crag-rimmed volcanic plateau of Auchineden Hill (357 metres) the ground shelves gradually northwards as the underlying bedrock changes into softer, lower-lying sedimentary deposits…Below the western slopes of Auchineden Hill two reservoirs lie close together, absorbed within the undulating terrain and craggy extrusions of the Kilpatrick Hills. The eastern boundary of the area is punctuated by several distinctive rocky knolls.

"Across Cameron Muir/Stockie Muir, the landcover is occasionally broken by scattered birch trees or clumps of gorse scrub. There has been recent large scale forest planting to the north and east of Cameron Muir and to the south of Stockie Muir. Mugdock is characterised by the varied habitats which associate throughout the area, which in combination with changing landforms, produce a landscape of great diversity concentrated within a relatively small area…"

"Within the Cameron Muir/Stockie Muir settlement is predominately located towards the eastern perimeter, close to the Blane Valley, and leading off from the main A809 road which runs northwards out of Glasgow…The John Muir Way long distance walking and cycling route passes through the southern part of this area."

"…Several rural roads, tracks and footpaths, including parts of the West Highland Way and the John Muir Way, as well as the A81, cut along the eastern edge of Mugdock between Strathblane and Glasgow."

"The simplicity of the open moorland within the Cameron Muir/Stockie Muir contrasts with the more diverse woodlands and rocky hillocks which fragment its eastern boundary. Views, which open out across the moorland towards the broad swathe of the Carse of Forth are dominated by the steep mass of the Campsie Fells.

Views southwards to the Glasgow conurbation from within the Mugdock area reveal the proximity of dense settlement to this landscape of rural character. The horizon-line to the north is terminated by the enclosing presence of the Strathblane Hills."

5.9.23 These characteristics are generally applicable to the Cameron Muir/Stockie Muir and Mugdock unit. In addition, OPEN's site visits have indicated that many parts of this

landscape are busy and occupied, with roads, car parks, signed paths and attractions (e.g. Mugdock Country Park, Edenmill, Queens View/Whangie car park) well-used by local residents and visitors. In many areas, this affects the rural character of the landscape, and the "*sense of remoteness and isolation"* is not widely apparent other than on the north-western edge of the unit, around the Whangie and Auchineden Hill. Even here, the car park and paths can be very busy and lacking in remoteness and isolation.

5.9.24 It is also noted that while the NatureScot description refers to "*important panoramic views to neighbouring hills, valleys and straths, as well as large settlements such as Glasgow and Falkirk",* and makes specific reference to the Campsie Fells and the Strathblane Hills, it does not refer to the spectacular north-westwards views towards Loch Lomond and the north-western mountains and hills that are available from a number of elevated locations in this landscape. These include Auchineden Hill, parts of the John Muir Way towards the north of the unit, and elevated parts of Stockie Muir and Cameron Muir. Viewpoint 6 (The Whangie) illustrates such a view. These outwards views are, in OPEN's opinion, an important characterising feature of this landscape unit.

5.9.25 Viewpoint 6 lies within this receptor and gives a good overview of the Site, clearly showing its relationship to the wider Kilpatrick Hills and the surrounding landscape. Viewpoint 16 (Dumgoyne Hill) lies to the east of this unit and shows an elevated outlook towards the Proposed Development across Cameron Muir/Stockie Muir and Mugdock unit, with many of the landscape characteristics apparent.

5.9.26 There are no wind farms within this receptor. Corlic Hill (Inverclyde) and Priestside both lie within 20 km to the south-west but have negligible theoretical visibility (as seen at Viewpoint 6). Earlsburn, Earlsburn North and the consented site at Shelloch also have negligible theoretical visibility, gained from over 17 km away, while Craigengelt has no theoretical visibility. Wind farms that lie beyond 20 km away would not have potential to contribute to a significant cumulative effect.

5.9.27 This unit of Lowland Hill Fringes – Central LCT has a medium-high value; a large part of it is covered by the Kilpatrick Hills LLA and, to the north-west, the landscape overlooks LLTNP and the Loch Lomond NSA. It is generally intact with scenic qualities and, in some parts, a strong sense of place, although this has been affected by development of recreational facilities in the landscape. The recreational value of the landscape also contributes to its value; Mugdock Country Park is largely within the unit and the John Muir Way and WHW pass through it, along with numerous core paths. The susceptibility of the receptor is medium-high. This landscape is not affected by large-scale human development and has some relatively remote areas with which the Proposed Development would contrast. However, it is quite diverse, lacking an overall sense of place and identity, and is developed and 'busy' in some areas with several major roads, small settlements and recreational facilities. The large scale of the underlying landform tempers susceptibility, although conversely the overlaid landscape patterns are quite complex in some areas and this increases susceptibility.

5.9.28 The combination of a medium-high susceptibility and medium-high value of the landscape results in a **medium-high** sensitivity for the Cameron Muir/Stockie Muir and Mugdock unit of Lowland Hill Fringes – Central LCT.

Magnitude of Change

5.9.29 The Proposed Development lies outwith this receptor and effects would therefore arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects on the landscape.

5.9.30 Theoretical visibility of the Proposed Development from the Cameron Muir/Stockie Muir and Mugdock unit of Lowland Hill Fringes – Central LCT falls into two broad areas; the north-western part and the south-eastern part. The north-western visibility, which is fairly consistent, covers the elevated areas of Stockie Muir, Cameron Muir, The Whangie and Auchineden Hill, while the south-eastern area, which is intermittent/very intermittent, is around Carbeth and Mugdock. Visibility is gained from between 2.3 km away in the north-west to 14.2 km away at the south-eastern extremity of the unit. Magnitude of change would vary widely due to the extensive nature of the LCT and the variable influence of the Proposed Development.

5.9.31 The highest magnitude of change would arise on the north-western part of the receptor, between approximately 2.3 km and 7 km away from the nearest turbine. Within this area, the level of change on the closest part of the landscape, up to approximately 3 km away from the nearest turbine, would be **high** due to the proximity and level of influence of the Proposed Development. Part of this area is currently forested, and the influence of the Proposed Development on this area would be more limited due to lack of visibility. Beyond this very small area of high magnitude of change, the level of change on slopes that face westwards towards the Proposed Development would be **medium-high**, while the slightly more distant areas and those that are not orientated towards the Proposed Development would be **medium**. Viewpoint 6 lies within this north-western area and provides an illustration of the higher type of influence that the Proposed Development would have on the landscape. This high, medium-high or medium magnitude of change would arise as a result of the following considerations.

- The north-western part of the receptor is an upland moorland landscape with no internal large-scale built form or development. The external influence of the Proposed Development (including associated infrastructure) would result in an alteration to the landscape setting of the receptor, arising from visibility of new, unfamiliar features that provide a highly visible, prevailing influence and introduce uncharacteristic elements in terms of movement, materials, colour, and structures.
- The "*sense of remoteness and isolation*" that can be perceived in parts of this north-western area would be reduced by the influence of the Proposed Development.
- The Proposed Development would be seen in the west-facing aspect of "*important panoramic views*" gained from the "*Hill fringes",* adding a new feature to the landscape setting of the receptor.

5.9.32 The factors that restrict the magnitude of change to a maximum medium-high or medium level beyond approximately 3 km away from the nearest turbine are as follows.

- There would be no direct physical effects on this receptor, ensuring that important characteristics of the landscape, including those relating to topography, landform, land cover, and settlement patterns, would continue to define the landscape, unaffected by the Proposed Development.
- The "*larger scale hill landforms*" and "*simplicity of the open moorland within the Cameron Muir/Stockie Muir*" prevent uncomfortable scale comparisons and provide an appropriate receiving environment for the external influence of Proposed Development.

- While the west-facing "*important panoramic views"* that characterise this landscape would be affected by the Proposed Development, as noted above, all other views would remain unaffected. This includes the views that are specifically mentioned in the LCT description; to "*large settlements such as Glasgow and Falkirk*" and "*across the moorland towards the broad swathe of the Carse of Forth* [which] *are dominated by the steep mass of the Campsie Fells*".
- The dramatic and spectacular north-westwards views towards Loch Lomond, including LLTNP and the Loch Lomond NSA, would also remain unaffected.
- The forestry and reservoirs that characterise Cameron Muir/Stockie Muir ensure that the landscape lacks the most unspoilt remote, wildness characteristics with which the Proposed Development would have the greatest contrast.

5.9.33 The maximum magnitude of change on the character of the south-eastern part of the receptor would be **low**. This area lies further away, between around 7 and 14 km, where theoretical visibility of the Proposed Development is intermittent/very intermittent and other influences on landscape character are readily apparent. Moreover, this south-eastern area does not have the association with the Kilpatrick Hills that is found in the north-western part of the receptor, and there is no specific landform orientation towards the Proposed Development.

5.9.34 Some parts of the receptor are shown to gain no visibility of the Proposed Development due to landform screening, and there would be no change on these areas.

Significance of the Effect

5.9.35 The effect of the Proposed Development on the landscape character of the Cameron Muir/Stockie Muir and Mugdock unit of Lowland Hill Fringes – Central LCT would vary. The effect on the majority of the receptor would be **not significant** due to lack of or limited visibility and influence of the Proposed Development, resulting in a maximum low magnitude of change. There would, however, be an intermittent major or major/moderate and **significant** effect on the north-western part of the receptor, due to the factors considered in the high, medium-high or medium magnitude of change and the medium-high sensitivity of the landscape. The significant effect would generally arise between approximately 2.3 km and 7 km from the nearest turbine.

Cumulative Effect

5.9.36 There is negligible theoretical visibility of several operational and consented wind farms from this receptor, as described above. The application stage wind farm at Earlsburn Extension lies within 20 km but the receptor has negligible theoretical visibility of this site from over 23 km away. Theoretical visibility of the sites that lie beyond 20 km distance would not contribute to a significant cumulative effect. The cumulative effect on the landscape character of the Cameron Muir/ Stockie Muir and Mugdock unit of Lowland Hill Fringes – Central LCT would therefore be **not significant** in any scenario due to the lack of notable visibility and influence of other wind farms.

Lowland Loch Basin - Loch Lomond & the Trossachs (LCT 263)

Baseline and Sensitivity

5.9.37 Lowland Loch Basin - Loch Lomond & the Trossachs is a large LCT that covers the broad and expansive southern part of Loch Lomond. The relevant key characteristics of this receptor are described as follows by NatureScot.

- *"Expansive loch basin rising to steep-sided hills and mountains to the east and west, and a low ridge to the south.*
- *Rivers flowing into the loch and their floodplains, with associated gently undulating valley sides, forming an integral part of the basin.*
- *Indented shores and some pronounced broad promontories on the west coinciding with alluvial fans from water courses flowing into the loch.*
- *Shoreline of rocky promontories and sand or pebble beach.*
- *Many wooded islands in the Loch appear to coalesce with shoreline promontories, breaking down the expanse of water visible in loch or shore views to form narrow straits and more intimately scaled areas of water.*
- *Extensive native oak dominated woodlands fringing the eastern side of the loch and wisps of birch threading up through narrow gullies which cut deeply into bracken/rough grass covered hill slopes.*
- *Well-settled loch margins with tourism and recreation developments such as chalet parks, golf courses and hotels, some accommodated in former estates.*
- *A number of small, planned estate-influenced settlements on the shores of the Loch and the southern Luss small planned estate village. The settlement of Balloch has a more urban character.*
- *Loch shores a focus for estates and their designed landscapes with mixed policy woodlands and parkland contributing to the diversity of the loch basin. Twisting dead-end road providing access on the east side of the loch, contrasting with the heavily trafficked A82 aligned close to western side of the loch. Views from these roads to the Loch often restricted by shoreline vegetation. Tourist facilities located close to these routes.*
- *Boating activities including sailing, canoeing, kayaking, and power boats and other sport activities such as jet skis on Loch Lomond. Ferries are a feature of the water bodies.*
- *Highly scenic landscape composition of island, water and indented shoreline, especially when viewed from surrounding hills and the south of the loch.*"

5.9.38 The description also includes further detail on some relevant aspects of the landscape character.

"As well as covering the expansive southern part of Loch Lomond the Lowland Loch Basin – Loch Lomond & the Trossachs LCT within LLTNP also includes the shores and lower hill slopes around the loch, extending more widely to cover the low-lying river valleys of the Endrick Water and the Fruin Water which flow into the Loch."

"A highly scenic composition is created by the interlock of island and water, and the indented shoreline, particularly appreciated in views from surrounding hills and mountains and from the Rolling Farmland – Loch Lomond & the Trossachs to the south of the loch."

5.9.39 Viewpoint 4 (Balloch Castle Country Park access road), Viewpoint 9 (Cameron House seaplane jetty), Viewpoint 12 (Endrick Viewpoint), Viewpoint 17 (Balmaha Harbour), Viewpoint 20 (Waterbus), Viewpoint 23 (Luss campsite), Viewpoint 24 (Sallochy) and

Viewpoint 27 (Inverbeg) lie within this receptor and give an impression of the appearance of the Proposed Development as it would be seen from various parts of the receptor. It is important to note that these viewpoints are all selected to illustrate the higher levels of visibility of the Proposed Development; extensive parts of Loch Lomond and its shoreline would have very limited theoretical and actual visibility of the Proposed Development due to screening by the landform of the indented shoreline and the islands as well as the woodland that characterises the LCT, as noted in the NatureScot description. A number of potential LVIA viewpoints within this receptor have been tested through site visits and the production of working wirelines, and have not been used in the LVIA due to lack of or very limited visibility of the Proposed Development.

5.9.40 There are no wind farms within this receptor. Earlsburn and Earlsburn North both lie just within 20 km of the receptor, but visibility of these sites is very intermittent and limited and is gained from over 22 km away (as seen at Viewpoint 12). The consented site at Shelloch has very limited and intermittent theoretical visibility from over 18 km away (also seen at Viewpoint 12). Wind farms that lie beyond 20 km away would not have potential to contribute to a significant cumulative effect.

5.9.41 This receptor has a high value; it lies wholly within LLTNP and almost entirely within Loch Lomond NSA. It is intact with notable scenic qualities and a strong sense of place. The recreational value of the landscape also contributes to its value due to a number of waterborne routes and use for watersports. The susceptibility of the receptor is also high. This landscape is relatively complex in terms of landscape patterns, and this increases susceptibility due to the potential for scale comparisons to arise. The Site also lies on the 'ridge' that lies to the south of the receptor, as noted in the NatureScot description, and this increases susceptibility due to landscape association. The combination of a high susceptibility and high value of the landscape results in a **high** sensitivity for the Lowland Loch Basin - Loch Lomond & the Trossachs LCT.

Magnitude of Change

5.9.42 The Proposed Development lies outwith this receptor and effects would therefore arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects on the landscape. The ZTV shows intermittent theoretical visibility of the Proposed Development from between approximately 3.6 km and 19.3 km away. The key areas that show no theoretical visibility are at the southern end of the LCT, where high ground to the west of Gartocharn prevents visibility from an area of shoreline and water, and elsewhere where the rising landform of the islands and promontories creates 'shadow' areas of no visibility.

5.9.43 The maximum magnitude of change on this receptor would arise on the part of the LCT in the south-easternmost part of the receptor that forms an arc around Rolling Farmland - Loch Lomond & the Trossachs LCT. This area, which lies between approximately 3.6 km and 9 km away from the Proposed Development, is the most open, unenclosed part of the southern loch, and relatively long, open views around the setting of the loch are available, ensuring that external influences are readily apparent. The arc covers areas of both shoreline and water, including Loch Lomond Shores, Balloch Country Park, Duck Bay, and the Endrick Water between Drymen and Loch Lomond. Its northern edge is marked by the islands of Inchmurrin, Creinch, Torrinch, and Clairinish.

5.9.44 Within this area, the magnitude of change would range from **medium-high** on the closer part, through **medium** to **medium-low** on the more distant parts to the north of the Proposed Development, around Endrick Mouth. This variation in maximum magnitude of change is dependent partly on distance from the Proposed Development, with closer areas generally undergoing a higher influence, but also on orientation of landform – many parts of the undulating landform are orientated strongly away from the Proposed Development and would therefore gain a very limited influence from the Proposed Development - and on the level of screening by the woodland that is a characteristic of the landscape. The closer parts of the receptor (e.g. around Balloch Castle, Boturich Castle, Portnellan Farm) are generally either orientated away from the Proposed Development or have extensive screening by buildings and woodland and a medium-high magnitude of change would be very limited. Viewpoint 4 and Viewpoint 9 lie within this area and illustrate the higher type of influence that the Proposed Development would have on the landscape, while Viewpoint 12 shows partially screened visibility.

5.9.45 This medium-high to medium-low magnitude of change on this arc in the south-eastern part of the receptor would arise as a result of the following considerations.

- The external influence of the Proposed Development (including infrastructure) would result in an alteration to the landscape setting of the receptor, arising from visibility of new, unfamiliar features that provide a visible influence and introduce uncharacteristic elements in terms of movement, materials, colour, and structures.
- This receptor is relatively complex and the external influence of the Proposed Development on this small-scale landscape would result in scale comparisons.
- Features seen across water can appear closer than they are in reality due to the lack of intervening detail, and this would increase the influence of the Proposed Development on parts of the receptor.

5.9.46 The factors that restrict the magnitude of change on the eastern part of the receptor to a maximum medium-high, medium or medium-low level are as follows.

- There would be no direct physical effects on this receptor, and effects are perceived only. This ensures that many important landscape characteristics (including those related to topography, landform, land cover, settlement) would be unaffected by the Proposed Development and would continue to be definitive.
- The "*highly scenic composition…created by the interlock of island and water, and the indented shoreline, particularly appreciated in views from surrounding hills and mountains and from the Rolling Farmland – Loch Lomond & the Trossachs to the south of the loch*" that is specifically mentioned in the LCT description - would not be affected by the Proposed Development, which lies to the south, and would remain as a key characteristic of the receptor.
- By contrast, the Proposed Development would be seen in the context of the relatively unremarkable Rugged Moorland Hills LCT within which the site lies. Rugged Moorland Hills is a large-scale, simple landscape, preventing notable scale comparisons between the Proposed Development and its landscape setting.
- The indented shoreline and woodland of various types that characterise the onshore parts of this receptor would provide extensive screening of the Proposed Development from both onshore and water areas, greatly reducing actual visibility from the level of theoretical visibility shown on the ZTV.
- In views from this LCT, the Proposed Development would consistently appear in the context of the large scale, undeveloped and unenclosed Rugged Moorland Hills LCT, which contrasts notably with the Lowland Loch Basin - Loch Lomond & the Trossachs LCT. This contrast is beneficial as the Proposed Development would be

associated with the upland landscape, preventing a perception of encroachment down into the Loch Basin LCT.

5.9.47 Beyond this arc at the southern end of the Lowland Loch Basin, between 9 km and 19.3 km away from the Proposed Development, the magnitude of change on the character of the receptor would be a maximum of **medium-low**, **low** and **negligible.** This is due to increased distance and the resultant reduction in influence of the Proposed Development, but also because to the north of the arc, the loch basin becomes narrower and tighter, with views more enclosed by the landform and woodland of the islands and promontories. Here, the more immediate setting of the enclosed landscape is predominant, and more distant external influences are less apparent. There are extensive areas of the receptor where screening by landform, woodland, and other types of vegetation would preclude the influence of the Proposed Development, leading to no change.

Significance of the Effect

5.9.48 The effect of the Proposed Development on the landscape character of the Lowland Loch Basin – Loch Lomond & the Trossachs LCT would vary. The effect on the great majority of the receptor would be **not significant** due to limited and/or distant visibility/influence of the Proposed Development and the resultant maximum medium-low magnitude of change. There would, however, be a major, major/moderate or moderate and **significant** effect on those parts of the south-eastern arc of the receptor that gain clear open visibility of the Proposed Development, due to the combination of the factors that lead to a medium-high, medium or medium-low magnitude of change and the high sensitivity of the landscape. The significant effect would generally arise between approximately 3.6 km and 9 km from the nearest turbine.

5.9.49 A combination of a medium-low magnitude of change and a high sensitivity can lead to an effect that is significant or not significant. In this case, the effect on the parts of the receptor that have a medium-low magnitude of change would vary, with the south-eastern arc having a **significant effect** while the northern area would be **not significant**. This variation in significance is due largely to the more direct association between the south-eastern arc of the receptor and the Proposed Development than is found further to the north, where the intervening landscape within the basin ensures that the influence of the Proposed Development would be diluted.

Cumulative Effect

5.9.50 There is very intermittent theoretical visibility of the operational wind farms at Earlsburn and Earlsburn North and the consented site at Shelloch, as described above. There are no application stage wind farms within 20 km, and theoretical visibility of those sites that lie beyond this distance would not contribute to a significant cumulative effect. Two scenarios are therefore considered in the cumulative assessment; the addition of the Proposed Development to operational sites, and the addition of the Proposed Development to operational sites plus consented sites.

5.9.51 In the operational cumulative scenario, the addition of the Proposed Development would have a **low** cumulative magnitude of change. The magnitude of change is limited to this level by the distant, very limited and intermittent visibility/influence of operational wind farms; the small number of wind farms that are theoretically visible; and their visual association, so that they appear as a single site. The not significant cumulative effect on

all the viewpoints that are located within this receptor is also relevant. When consented wind farms are also considered, the magnitude of change would increase slightly but would not rise above a **low** level. This is due to the limited theoretical visibility of Shelloch, its distance from the receptor, and its visibility in conjunction with wind farms that are already operational, so that visibility would not be added to otherwise unaffected aspects of the setting to the LCT.

5.9.52 The cumulative effect in both scenarios would be **not significant** due to the factors that lead to the low cumulative magnitude of change despite the high sensitivity of the receptor. No other cumulative scenarios are relevant.

Lowland Loch Basin Islands (LCT 264)

Baseline and Sensitivity

5.9.53 Lowland Loch Basin Islands LCT covers the larger islands within southern Loch Lomond; including Inchcailloch, where Viewpoint 11 is located. The relevant key characteristics of this receptor are described as follows by NatureScot.

- *"Series of small islands in Loch Lomond. Varied landform, varying from steep-sided domes to lower lying, more subtly undulating. Some islands are elongated, whereas others have a less regular shape.*
- *Other islands are more irregularly shaped and most islands covered with broadleaf, oak-dominated woodland. Some groups of conifers are also present and Inchlonaig is known for its yew trees.*
- *Some of the islands still occupied with estate houses, a hotel and piers.*
- *Pattern of water and islands and the indented shoreline of Loch Lomond create a unique and highly scenic composition particularly appreciated from elevated views."*

5.9.54 The description also includes further detail on some relevant aspects of the landscape character.

"The many wooded islands in the loch interlock and appear to coalesce with shoreline promontories, breaking down the expanse of water visible in loch or shore views, forming narrow straits and more intimately scaled areas of water. The heavily wooded islands and loch shores accentuate this seeming merging of the two, particularly in views from the Balmaha and Luss areas. Views from the small hills of Duncryne to the south of Loch Lomond and from Conic Hill are particularly dramatic."

5.9.55 Viewpoint 11 (Inchcailloch) gives an impression of the Proposed Development as it would be seen from an elevated location on one of the closer islands. It is important to note that this viewpoint is specifically selected to illustrate the higher level of visibility of the Proposed Development, and extensive parts of the islands would have very limited theoretical and actual visibility of the Proposed Development due to screening by the landform and woodland that characterise the LCT, as noted in the NatureScot description.

5.9.56 There are no wind farms within this receptor. The operational sites at Corlic Hill (Inverclyde) and Priestside Farm both lie within 20 km, but Corlic Hill (Inverclyde) has negligible theoretical visibility from 19 km away while Priestside Farm has no visibility. Wind farms that lie beyond 20 km away would not have potential to contribute to a significant cumulative effect.

5.9.57 This receptor has a high value; it lies wholly within LLTNP and the Loch Lomond NSA and is intact with notable scenic qualities and a strong sense of place. The recreational value of the landscape also contributes to its value. The susceptibility of the receptor is medium-high. This landscape is relatively complex in terms of landscape patterns, and this increases susceptibility due to the potential for scale comparisons to arise. However, there is no specific relationship or association between the receptor and the landscape within which the Proposed Development lies, and this tempers its susceptibility. The combination of a medium-high susceptibility and high value of the landscape results in a **high** sensitivity for the Lowland Loch Basin Islands LCT.

Magnitude of Change

5.9.58 The Proposed Development lies outwith this receptor and effects would arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects. The ZTV shows that theoretical visibility from the islands is intermittent/very intermittent due to landform screening, and considerable further screening would be provided by the extensive woodland that characterises the majority of the islands. This can be seen at Viewpoint 11, which illustrates the most open view gained from an accessible location on Inchcailloch that OPEN could identify on a site visit.

5.9.59 Where there is visibility of the Proposed Development, the magnitude of change on this receptor would be similar to that assessed for the Lowland Loch Basin - Loch Lomond & the Trossachs LCT, within which the islands lie. The assessment for Lowland Loch Basin describes an arc of the receptor in the south-eastern part of Loch Lomond where the magnitude of change would range from a maximum of medium-high to medium-low. The southernmost of these islands form the outer edge of the Lowland Loch Basin arc, and the maximum **medium-low** magnitude of change would also apply to those parts of the southernmost islands that gain visibility of the Proposed Development. Beyond this southernmost part of the islands, the magnitude of change would reduce to **low** and then **negligible**, as described for Lowland Loch Basin - Loch Lomond & the Trossachs LCT.

5.9.60 There are extensive areas of the receptor where screening by landform and woodland, and other types of vegetation would preclude the influence of the Proposed Development, leading to no change.

Significance of the Effect

5.9.61 The effect of the Proposed Development on the landscape character of the Lowland Loch Basin Islands LCT would be **not significant** due to limited and/or distant visibility/ influence of the Proposed Development and the resultant maximum low magnitude of change, despite the high sensitivity of the receptor. A combination of a medium-low magnitude of change and a high sensitivity can lead to an effect that is significant or not significant. In this case, the effect is assessed to be not significant due to the very intermittent visibility of the Proposed Development from the closest part of the receptor, and the other, more eye-catching, influences of the loch, islands and shorelines.

Cumulative Effect

5.9.62 There is negligible theoretical visibility of Corlic Hill (Inverclyde) and Priestside Farm wind farms from this receptor, as described above, and no visibility of consented or application

sites that lie within 20 km. Theoretical visibility of the sites that lie beyond 20 km distance would not contribute to a significant cumulative effect. The cumulative effect on the landscape character of the Lowland Loch Basin Islands LCT would be **not significant** in any scenario due to the lack of notable visibility and influence of other wind farms.

Open Ridgeland - Glasgow & Clyde Valley (LCT 215): Alexandria

Baseline and Sensitivity

5.9.63 The Alexandria unit of Open Ridgeland - Glasgow & Clyde Valley LCT rises to the west of Rolling Farmland - Glasgow & Clyde Valley LCT on the western side of the River Leven valley. Combined with Open Ridges LCT, this receptor covers the high ground that separates Loch Lomond from the Firth of Clyde, rising to a maximum height of 304 m AOD. The key characteristics are described as follows by NatureScot.

- *"Smooth, convex area of upland, lacking in the terraced or craggy features that characterise surrounding areas of upland.*
- *Open heather moorland on the summit giving way to pastures, broadleaf woodland and policies on the lower slopes.*
- *Prominence and undeveloped character."*

5.9.64 The description also includes further detail on some relevant aspects of the landscape character.

"The sandstone hills rise steadily from sea level to 300 metres, so although not high, they are of comparatively large scale. Most of the land within the Landscape Character Type is sloping, rising up to Bromley Muir.."

"An existing line of electricity pylons crosses the ridges and are very visible, and there is a mast interrupting the skyline."

"The area does not have many facilities for outdoor recreation, although the John Muir Way long distance route crosses the area at its northern reaches, providing stunning views to the Loch Lomond and the Trossachs National Park mountain backdrop to the north. The high point of Bromley Muir is a local landmark in views from the Vale of Leven. There are views to Loch Lomond and the wider Loch Lomond and the Trossachs National Park from its summit, as well as views south over the Firth of Clyde."

"The landscape does not generally have strong wild character, as it is influenced by adjacent settlement and transport corridors, although the moorland summits do have a degree of perceptual separation from the settlements."

5.9.65 There are no viewpoints within this receptor.

5.9.66 There are no wind farms within this receptor. There is theoretical visibility of two operational wind farms that lie within 20 km of the LCT; Corlic Hill (Inverclyde) and Priestside Farm. These sites are both theoretically intermittently visible from the south-western parts of the receptor, seen from between 7 km and 11 km away. There are no under construction or consented sites within 20 km, and those that lie beyond 20 km away would not have potential to contribute to a significant cumulative effect.

5.9.67 This receptor has a medium-high value. The northernmost part of the unit lies within LLTNP, and the whole unit overlooks LLTNP as well as the Kilpatrick Hills LLA. The landscape is largely intact and there is value in its provision of a relatively undeveloped

area between Loch Lomond and the Firth of Clyde. The landscape also has recreational value, as the John Muir Way and Three Lochs Way both cross the northern end of the receptor, as well as several core paths. The susceptibility of the receptor is medium. This landscape is generally large scale in terms of landform and landscape patterns, and scale comparisons are therefore unlikely to arise. There is also the large-scale human influence of the transmission line within the landscape, and external development is apparent. However, the landscape is largely undeveloped, so that the contrast of the Proposed Development would increase its influence, and there is some association between the receptor and the Site as these landscapes face each other across the River Leven valley, and these factors contribute to the medium susceptibility. The combination of a medium susceptibility and medium-high value of the landscape results in a **medium-high** sensitivity for the Alexandria unit of Open Ridgeland - Glasgow & Clyde Valley LCT.

Magnitude of Change

5.9.68 The Proposed Development lies outwith this receptor and effects would therefore arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects. The ZTV shows intermittent theoretical visibility of the Proposed Development from the LCT, ranging from approximately 5.8 km up to 8.7 km away. Visibility is found primarily from the central and eastern parts of the receptor, where the slopes face east and north-east. The western part of the unit generally faces to the south-west, away from the Proposed Development, and theoretical visibility from this area is considerably more limited.

5.9.69 The maximum magnitude of change on this receptor would be **medium**, arising on the closer central/southern parts of the receptor, between Kipperoch Farm in the south and Bromley Muir in the north. This area lies between 5.8 km and 6 km away from the Proposed Development and landform is orientated to the east, towards the Kilpatrick Hills. This magnitude of change would arise as a result of the following considerations.

- The external influence of the Proposed Development would result in an alteration to the landscape setting of the receptor, arising from visibility of new, unfamiliar features that provide a clearly visible influence and introduce uncharacteristic elements in terms of movement, materials, colour, and structures.
- The eastwards orientation of landform would increase the external influence of the Proposed Development as it would be seen in the direct setting of the receptor.

5.9.70 The factors that restrict the magnitude of change on the central and southern area to a maximum medium level are as follows.

- There would be no direct physical effects on this receptor, and effects are perceived only. This ensures that many important characteristics of the landscape, including those related to topography, landform, land cover, and settlement would remain unaffected and would continue to define the landscape.
- The key characteristics make reference to "*stunning views to the Loch Lomond and the Trossachs National Park mountain backdrop to the north*" and "*views to Loch Lomond and the wider Loch Lomond and the Trossachs National Park from its summit* [Bromley Muir]*, as well as views south over the Firth of Clyde".* The Proposed Development would not affect these views as it would lie to the east rather than in the context of either LLTNP (to the north and north-east) or the Firth of Clyde (south). The Kilpatrick Hills are not mentioned in relation to views.
- The Proposed Development would be seen in the context of Rugged Moorland Hills LCT, within which the Site lies. Rugged Moorland Hills LCT is a large scale,

simple landscape and, beneficially, scale comparisons between the Proposed Development and its landscape setting would not arise.

- The "*local landmark*" formed by the "*high point of Bromley Muir…in views from the Vale of Leven*", as noted in the NatureScot description, would not be affected by the Proposed Development.
- As noted in the NatureScot description, "*The landscape does not generally have strong wild character, as it is influenced by adjacent settlement and transport corridors, although the moorland summits do have a degree of perceptual separation from the settlements*". This baseline influence of development ensures that the Proposed Development would not provide a completely uncharacteristic external influence. Perceptual separation from settlements would not be affected as the Proposed Development lies beyond settlements in views from the receptor.
- The large scale of the receptor ensures that scale comparisons between the receptor and the Proposed Development would not arise.
- As noted in the NatureScot description, woodland is an important feature of parts of this landscape, ensuring that actual visibility, and therefore influence, of the Proposed Development would be limited and intermittent.

5.9.71 The magnitude of change in the northern part of the receptor would be a maximum of **medium-low**. This area is orientated more to the north and north-east than the east, where the Proposed Development lies, and gains its predominant external influence from the "*stunning views to the Loch Lomond and the Trossachs National Park mountain backdrop to the north*". Theoretical visibility from the northern area is more intermittent and limited due to landform screening, and extensive woodland would provide further screening. The distance from the Proposed Development is also greater, at a minimum of around 6 km. There are areas of the receptor where screening by landform, woodland, and other types of vegetation would reduce the influence of the Proposed Development, leading to a maximum **low** magnitude of change.

Significance of the Effect

5.9.72 The effect of the Proposed Development on the landscape character of the Alexandria unit of Open Ridgeland - Glasgow & Clyde Valley LCT would vary. The effect on the northern part of the unit would be **not significant** due to limited visibility/influence of the Proposed Development and the resultant maximum medium-low magnitude of change combined with the medium-high sensitivity. A combination of a medium-low magnitude of change and a medium-high sensitivity can lead to an effect that is significant or not significant. In this case, the effect is assessed to be not significant because the key eye-catching baseline external influence of LLTNP would not be affected by the Proposed Development, and the Proposed Development would not be seen in the direct setting of the receptor in terms of landform orientation. There would, however, be an intermittent major/moderate and **significant** effect on the central and southern parts of the receptor that gain clear visibility of the Proposed Development. This is due to the combination of the factors that lead to a medium magnitude of change and the medium-high sensitivity.

Cumulative Effect

5.9.73 There is theoretical visibility of the operational wind farms at Priestside Farm and Corlic Hill (Inverclyde) from this receptor, as described above. There are no application stage wind farms within 20 km, and theoretical visibility of those sites that lie beyond this distance would not contribute to a significant cumulative effect. One scenario is therefore

considered in the cumulative assessment; the addition of the Proposed Development to the operational sites at Corlic Hill (Inverclyde) and Priestside Farm. In this scenario, the addition of the Proposed Development would have a **low** cumulative magnitude of change due to the limited and intermittent visibility and influence of the operational wind farms, particularly bearing in mind the modest height of the turbines; the distance of these wind farms from the receptor; the fact that there are only two operational wind farms; and their appearance in the same aspect of the setting to the receptor.

5.9.74 The cumulative effect in the operational wind farm scenario would be **not significant** due to a combination of the factors that lead to the low cumulative magnitude of change and the medium-high sensitivity of the receptor. No other cumulative scenarios are relevant.

Parallel Ridges - Loch Lomond & the Trossachs (LCT 255): Ben Bowie

Baseline and Sensitivity

5.9.75 The Ben Bowie unit of Parallel Ridges - Loch Lomond & the Trossachs LCT is a relatively small unit that lies immediately to the north of the Alexandria unit of Open Ridgeland LCT. Its northern edge borders Lowland Loch Basin. Parallel Ridges marks the margin of the Highland Boundary Fault Line, and forms a series of prominent ridge features in a narrow band from Callander Craigs in the north-east to Ben Bowie in the south-west. The Lowland Loch Basin Islands of Inchailloch, Torrinch, Creinich and Inchmurrin continue the alignment of the Parallel Ridges through the waterbody of Loch Lomond. The relevant key characteristics are described as follows by NatureScot.

- *"Highly visible and important landmarks in local and wider landscapes, contributing to the highly scenic character of the Highland Boundary Fault Zone. Long and narrow parallel ridges with scrub-filled, near vertical gullies cut into steep outer slopes give a toothed hummocky profile in some views.*
- *Bare rock, linear bands of crags and screes occur on sheer upper slopes and in gullies.*
- *Steep rugged face of the parallel hills accentuated in places by a coarse pattern of broadleaf woodlands, bracken and heather. The high open ridge tops are covered with grass and heather.*
- *Conifer woodland, planted on outer slopes, obscures the distinctive landform of these ridges in some areas.*
- *Lower slopes are grazed with pastures often wet and invaded by rushes or bracken.*
- *Unsettled landscape, with modern man-made elements being mostly limited to forest tracks and paths.*
- *Occasional masts sited on high ridges are prominent.*
- *Ridges form significant landmark features as they rise dramatically from the low-lying Carse of Forth and Loch Lomond."*

5.9.76 The relatively small extent of this unit and its extensive forestry cover means that while the landform of Ben Bowie does form a feature in the landscape, it lacks the eye-catching dramatic landform and skyline of other units of this LCT (e.g. the Conic Hill unit). Viewpoint 15 (Ben Bowie) is within this receptor.

5.9.77 There are no wind farms within this receptor. There is theoretical visibility of two operational wind farms that lie within 20 km of the LCT; Corlic Hill (Inverclyde) and

Priestside Farm, both of which have very limited and intermittent theoretical visibility from a minimum of 10.5 km away. There are no under construction or consented sites within 20 km, and those that lie beyond 20 km away would not have potential to contribute to a significant cumulative effect.

5.9.78 This receptor has a high value; it lies wholly within LLTNP and partly within Loch Lomond NSA and overlooks both of these designated areas to the north and north-east. It is generally intact with scenic qualities and a sense of place. The recreational value of the landscape contributes to its value as the John Muir Way and Three Lochs Way pass through the landscape as well as several core paths. Gouk Hill, which is on the John Muir Way, and promoted by LLTNPA as a walking destination, is within the receptor. The susceptibility of the receptor is medium. This unit is generally large scale in terms of landform and landscape patterns (particularly the coniferous forestry), and scale comparisons are therefore unlikely to arise. There is also no specific association between the receptor and the landscape of the Site. However, the landscape is largely undeveloped in terms of built form, and this leads to the medium susceptibility. The combination of a medium susceptibility and high value of the landscape results in a **medium-high** sensitivity.

Magnitude of Change

5.9.79 The Proposed Development lies outwith this receptor and effects would therefore arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects. The ZTV shows that visibility from much of the unit is screened by the landform of Ben Bowie and Gouk Hill, with just one band of theoretical visibility from the eastern part of the LCT, where the landform faces east or north-east, approximately 7.2 km up to 9 km away. The maximum magnitude of change on this eastern area would be **medium-low**. This magnitude of change would arise as a result of the following consideration.

- The external influence of the Proposed Development would result in an alteration to the landscape setting of the receptor, arising from visibility of new, unfamiliar features that provide a visible influence and introduce uncharacteristic elements in terms of movement, materials, colour, and structures.

5.9.80 The factors that restrict the magnitude of change to a medium-low level are as follows.

- There would be no direct physical effects on this receptor, and effects are perceived only. This ensures that a number of important characteristics of the landscape, including those related to topography, landform, land cover, and settlement patterns, would remain unaffected by the Proposed Development.
- The landmark feature that is provided by this receptor in views from the surrounding areas, as noted in the NatureScot description, would not be affected by the Proposed Development as it would be seen in a different aspect of the view.
- The key external influence on this receptor is the dramatic, eye-catching landscape of Loch Lomond and its surrounds, which lies to the north and north-east, while the Proposed Development lies to the south-east. The Proposed Development would therefore not affect this baseline external influence but would be seen in the relatively unremarkable context of Rugged Moorland Hills LCT (as illustrated at Viewpoint 15).
- The large scale of the receptor ensures that scale comparisons between the receptor and the Proposed Development would not arise.

- Theoretical visibility is limited to one part of the unit, reducing the overall influence of the Proposed Development. As noted in the NatureScot description, forestry is an important feature of parts of this landscape, ensuring that actual visibility and influence of the Proposed Development would be further reduced.

Significance of the Effect

5.9.81 The effect of the Proposed Development on the landscape character of the Ben Bowie unit of Parallel Ridges - Loch Lomond & the Trossachs LCT would be **not significant** due to limited visibility/influence of the Proposed Development, and the resultant maximum medium-low magnitude of change combined with the medium-high sensitivity. A combination of a medium-low magnitude of change and a medium-high sensitivity can lead to an effect that is significant or not significant. In this case, the effect is assessed to be not significant because neither the key eye-catching baseline external influence of LLTNP nor the landmark feature formed by this landscape in views towards the LCT would be affected by the Proposed Development. The distance of the Proposed Development from the receptor and the limited extent of its visibility are also factors.

Cumulative Effect

5.9.82 There is theoretical visibility of the operational wind farms at Priestside Farm and Corlic Hill (Inverclyde) from this receptor, as described above. There are no application stage wind farms within 20 km, and theoretical visibility of those sites that lie beyond this distance would not contribute to a significant cumulative effect. One scenario is therefore considered in the cumulative assessment; the addition of the Proposed Development to the operational sites at Corlic Hill (Inverclyde) and Priestside Farm. In this operational scenario, the addition of the Proposed Development would have a **low** cumulative magnitude of change, due to the very intermittent visibility of the operational wind farms, particularly bearing in mind the modest height of the turbines; the distance of these wind farms from the receptor; the small number of operational wind farms; and their appearance in the same aspect of the setting to the receptor. The cumulative effect on Viewpoint 15, within this receptor, is assessed to be not significant. The cumulative effect in the scenario of operational wind farms would be **not significant** due to a combination of the factors that lead to the low cumulative magnitude of change and the medium-high sensitivity of the receptor. No other cumulative scenarios are relevant.

River Valley Farmland and Estates (LCT 260)

Baseline and Sensitivity

5.9.83 River Valley Farmland and Estates LCT is found to the east of Loch Lomond, running between the lower southern slope of Conic Hill in the north to Croftamie in the south. The key characteristics of the LCT are described as follows by NatureScot.

- *"Gently undulating slopes occur on the north side of the broad floodplain of the Endrick Water west of Drymen Bridge but the landform within this valley becomes more complex and rolling upstream where glacial deposits are overlaid on the floor and sides.*
- *Estates and their wooded policies are key features of these landscapes. The policies of the Buchanan estate cover south-west facing slopes set above the flat floodplain of the Endrick Water. Mixed policy woodlands are irregularly shaped, enclosing curving pastures and parkland.*

- *Small rolling pastures are enclosed by a mix of thorn and beech hedges and fences.*
- *Occasional mature broadleaf trees align roads and field boundaries. Larger rectilinear fields enclosed by hedgerows and boundary trees of ash, oak and beech cover upper slopes west of Drymen.*
- *Well-settled landscapes with many farms and settlements including Drymen. Estate boundary walls, gates and lodges are prominent.*
- *Views are restricted from within these landscapes by landform and woodland."*

5.9.84 Viewpoint 14 (WHW near Drymen) lies within this receptor and gives an impression of the higher type of visibility of the Proposed Development.

5.9.85 There are no wind farms within this receptor. The operational sites at Earlsburn and Earlsburn North have negligible visibility from a minimum of 17 km away, and the consented site at Shelloch has very intermittent theoretical visibility from 16 km away. The operational Craigengelt wind farm, which has very limited and intermittent theoretical visibility from a minimum of 23 km away (as seen at Viewpoint 14), is considered despite lying more than 20 km away as it forms part of the cluster near Earlsburn.

5.9.86 This receptor has a high value; it lies wholly within LLTNP and a small part is within Loch Lomond NSA. It is generally intact with scenic qualities and a sense of place. The recreational value of the landscape also contributes to its value; NCR 7 passes through the landscape as do the John Muir Way, Rob Roy Way, WHW and a number of core paths. The susceptibility of the receptor is medium-high. This landscape is relatively complex in terms of landform and landscape patterns, and this increases susceptibility due to the potential for scale comparisons to arise. There is also little evidence of large-scale human development. However, the landscape does not have a specific association with the Site area, and this tempers susceptibility. The combination of a medium-high susceptibility and high value of the landscape results in a **high** sensitivity for the River Valley Farmland and Estates LCT.

Magnitude of Change

5.9.87 The Proposed Development lies outwith this receptor and effects would therefore arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects. The ZTV shows fairly consistent theoretical visibility of the Proposed Development, ranging from approximately 5.6 km up to 11.8 km away in the northern corner. The maximum magnitude of change on this receptor would be **medium**; this would arise in the southern part of the receptor, between Croftamie and Drymen, approximately 5.6 km to 8 km away from the Proposed Development. This would arise where a clear and open view towards the Proposed Development is available for the reasons described below.

- The external influence of the Proposed Development would result in an alteration to the landscape setting of the receptor, arising from visibility of new, unfamiliar features that provide a clearly visible influence and introduce uncharacteristic elements in terms of movement, materials, colour, and structures.
- This receptor is relatively complex in terms of both landform and landscape patterns, and the external influence of the Proposed Development on this detailed and textured landscape would result in scale comparisons.
- In some parts of the receptor (e.g. the northern side of the Endrick Water), landform is orientated towards the Proposed Development.

5.9.88 The factors that restrict the magnitude of change on the southern part of the receptor to a maximum medium level are as follows.

- There would be no direct physical effects on this receptor, and effects are perceived only. This ensures that many characteristics of the landscape, including those related to topography, landform, land cover, and settlement patterns, would remain unaffected by the Proposed Development.
- As noted in the NatureScot description, "*Views are restricted from within these landscapes by landform and woodland*", ensuring that the landscape has a strong internal character that does not reply heavily on external influences in its characterisation. The restriction of views also ensures that visibility and influence of the Proposed Development is limited and intermittent.
- Many parts of the undulating and sometimes enclosed valley landform are orientated away from the Proposed Development, further reducing its influence.
- Where it is visible, the Proposed Development would be seen in the context of the relatively unremarkable Rugged Moorland Hills LCT within which the Site lies. Rugged Moorland Hills is a large scale, simple landscape and scale comparisons between the Proposed Development and its landscape setting would not arise.
- The Rugged Moorland Hills LCT contrasts notably with the receptor and other intervening LCTs (Lowland Loch Basin and Rolling Farmland - Loch Lomond & the Trossachs). This contrast is beneficial as the Proposed Development would be associated with the upland landscape, preventing a perception of encroachment towards the River Valley Farmland and Estates LCT and other lowland landscapes.

5.9.89 The magnitude of change on the northern part of the receptor, between 8 km and 11.8 km away from the Proposed Development, would be a maximum of **medium-low.** Here, a combination of increased distance and extensive woodland cover ensures that the Proposed Development would have a limited influence. Where long, open views are available, the more eye-catching aspect of the setting to this elevated part of the receptor is provided by Loch Lomond, to the west, rather than the Site landscape.

5.9.90 There are areas throughout the receptor where screening by landform, woodland, and other types of vegetation would reduce the influence of the Proposed Development, leading to a maximum **low** magnitude of change.

Significance of the Effect

5.9.91 The effect of the Proposed Development on the landscape character of River Valley Farmland and Estates LCT would vary. The effect on the northern part of the receptor and some areas of the southern part would be **not significant** due to limited visibility/ influence of the Proposed Development and the resultant maximum medium-low magnitude of change. A combination of a medium-low magnitude of change and a high sensitivity can lead to an effect that is significant or not significant. In this case, the effect is assessed to be not significant due to screening by landform and vegetation, including policy woodlands and hedgerows, the defining influence of other eye-catching external features, such as Loch Lomond, and the increased distance from the Proposed Development. There would, however, be a major/ moderate and **significant** effect on some areas of the southern part of the receptor due to the combination of the factors that lead to a medium magnitude of change and the high sensitivity of the landscape. The significant effect would generally arise between approximately 5.6 km and 8 km from the nearest turbine.

Cumulative Effect

5.9.92 There is negligible visibility of the operational wind farms at Earlsburn and Earlsburn North and very intermittent theoretical visibility of Craigengelt (which is beyond 20 km away) and the consented site at Shelloch, as described above. There is also very intermittent theoretical visibility of the application site at Earlsburn Extension from 19.5 km away. Visibility of sites that lie beyond 20 km away would not contribute to a significant cumulative effect. The cumulative effect on the landscape character of River Valley Farmland and Estates LCT would be **not significant** in any scenario due to the lack of notable visibility and influence of other wind farms.

Rolling Farmland - Glasgow & Clyde Valley (LCT 200): Alexandria

Baseline and Sensitivity

5.9.93 The Alexandria unit of Rolling Farmland - Glasgow & Clyde Valley LCT, a north-south linear tract of land that lies to the south and west of the Vale of Leven settlement boundary, is the northernmost incidence of this LCT. The majority of the unit is narrow, approximately 1 km wide, and the landform, which forms the western side of the River Leven valley, is predominantly orientated strongly to the east. The southern part of the unit covers the River Leven basin to the north of Dumbarton and is flatter and low-lying. The northern end of the unit abuts Rolling Farmland - Loch Lomond & the Trossachs LCT. The key characteristics are described as follows by NatureScot.

- *"Distinctive undulating landform of elongated hillocks, mounds and ridges created by fluvio-glacial action.*
- *Dominance of pastoral farming, varying in productivity according to elevation and exposure.*
- *Importance of woodland in structuring the landscape and providing shelter for agriculture and rural settlement.*
- *Settlement confined to scattered small farms and hamlets, with several small towns.*
- *Motorways and main roads in northern areas.*
- *Sand and gravel quarries.*
- *Medium to small scale landscape.*
- *Largely rural character."*

5.9.94 The description also includes further detail on some aspects of the landscape character.

"These areas are essentially rural in character with comparatively few urban influences, although this is less so in the north of the Landscape Character Type."

"This Landscape Character Type is not remote, but has pockets of tranquillity, these being more frequent in the southern areas."

5.9.95 This unit is a relatively small area of the Rolling Farmland LCT and does not display all of the characteristics; most notably, the single-aspect orientation of the valley side ensures that the undulating, rolling nature of the landform is not apparent. Development is a notable influence; the southern end of the unit is affected by industrial development, including the Aggreko factory, the A82 forms the eastern boundary of the unit, and the settlement of Vale of Leven provides an external influence to the east. Woodland and vegetation patterns do, however, remain reasonably intact.

5.9.96 While there are no viewpoints within this receptor, Viewpoint 3 (A82 near Bellsmyre roundabout) lies on its south-eastern edge and looks towards the Proposed Development across Rolling Farmland - Glasgow & Clyde Valley LCT, with the Aggreko factory visible.

5.9.97 There are no wind farms within this receptor. The sites at Corlic Hill (Inverclyde) and Priestside Farm, both of which have very intermittent and limited theoretical visibility from the southern extremity of the receptor, lie 8.3 km and 5.5 km away to the south-west. Wind farms that lie beyond 20 km away would not have potential to contribute to a significant cumulative effect.

5.9.98 This receptor has a medium value; it does not lie within a scenic designation and has been affected by internal and external industrial and urban development. It does, however, overlook the Kilpatrick Hills LLA, retains characteristic vegetation patterns, and has some recreational value – there are several core paths within the unit and the John Muir Way passes along its northern edge. The susceptibility of the receptor is also medium. This landscape is relatively complex in terms of both landform and landscape patterns, and this increases susceptibility due to the potential for scale comparisons to arise. There is also an association between the receptor and the landscape within which the Site lies, as the Kilpatrick Hills rise above the eastern side of the River Leven valley, of which the receptor forms the western side. However, susceptibility is tempered by large-scale human development within and adjacent to the landscape. The combination of a medium susceptibility and medium value of the landscape results in a **medium** sensitivity for the Alexandria unit of Rolling Farmland - Glasgow & Clyde Valley LCT.

Magnitude of Change

5.9.99 The great majority of the Proposed Development is outwith this receptor and almost all effects would therefore arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects. There is, however, a very short section of new access track – less than 100 m long - and a construction compound on the south-eastern edge of the LCT, where it abuts the Rugged Moorland Hills LCT, and these would result in direct effects.

5.9.100 The ZTV shows consistent theoretical visibility of the Proposed Development from the LCT, ranging from approximately 3.2 km up to 6 km away. The maximum magnitude of change would range from **medium-high** to **medium**, dependent on distance from the Proposed Development, with closer areas generally undergoing a higher level of influence; and the level of actual visibility of the Proposed Development, as from many parts of the receptor visibility would be screened by buildings and woodland. Broadly, the parts of the receptor that lie at closer proximity to the Proposed Development would have more limited visibility due to their lower elevation and higher levels of screening, but where the Proposed Development is visible it would be seen at closer proximity and thus with a higher level of influence. Conversely, the slightly more distant areas would have higher visibility due to the greater elevation and lower level of screening but the Proposed Development would be seen from slightly further away, reducing its influence. The small part of the receptor that is directly affected by infrastructure would have a localised higher influence.

5.9.101 This medium-high to medium maximum magnitude of change would arise as a result of the following considerations.

- The small part of the receptor that is host to infrastructure would have a localised direct effect on landscape patterns due to the construction and operation of the access track (long term effect) and the construction compound (short term effect).
- Elsewhere, the external influence of the Proposed Development would result in an alteration to the landscape setting of the receptor, arising from visibility of new, unfamiliar features that provide a clearly visible influence and introduce uncharacteristic elements in terms of movement, materials, colour, and structures.
- This receptor is a "*Medium to small scale landscape*" and the external influence of the Proposed Development would result in scale comparisons.
- The eastwards orientation of landform would increase the external influence of the Proposed Development as it would be seen in the setting of the receptor.

5.9.102 The factors that restrict the magnitude of change to a maximum medium-high to medium level are as follows.

- The direct physical effect on this LCT would be very localised in extent and would not be out of keeping with the baseline landscape patterns, which are characterised by development such as the adjacent Aggreko factory.
- Other than this localised direct effect on one small area, there would be no physical effects. The limited extent of the direct effect and its location on the edge of the LCT, adjacent to other built development, ensures that important characteristics of the landscape including those related to topography, landform, land cover, and settlement patterns would remain unaffected by the Proposed Development.
- The presence of human influences, including large scale development within and around this receptor, ensures that the Proposed Development would not provide a completely new or uncharacteristic direct or external influence on the landscape.
- As noted in the NatureScot description, woodland is an important feature of the structure of this landscape, ensuring that actual visibility, and therefore influence, of the Proposed Development would be limited and intermittent.
- Where it is visible, the Proposed Development would be seen in the context of Rugged Moorland Hills LCT, within which the site lies. Rugged Moorland Hills LCT is a large scale, simple landscape and, beneficially, scale comparisons between the Proposed Development and its landscape setting would not arise.
- The context of the Rugged Moorland Hills LCT contrasts notably with the receptor and the intervening urban area. This contrast is beneficial as the Proposed Development would be associated with the upland landscape, preventing a perception of encroachment towards the receptor.

5.9.103 There are areas of the receptor where screening by landform, woodland, and other types of vegetation would reduce the influence of the Proposed Development, leading to a maximum **medium-low** magnitude of change.

Significance of the Effect

5.9.104 The effect of the Proposed Development on the landscape character of the Alexandria unit of Rolling Farmland - Glasgow & Clyde Valley LCT would vary. The effect on some areas would be **not significant** due to limited visibility/influence of the Proposed Development and the resultant maximum medium-low magnitude of change combined with the medium sensitivity. There would, however, be an intermittent major/moderate or moderate and **significant** effect on those parts of the receptor that gain clear visibility of the Proposed Development due to a combination of the factors that lead to a medium-high or medium magnitude of change and the medium sensitivity of the landscape. A **significant** effect would also arise on the small area that would be directly affected by

infrastructure. A combination of a medium magnitude of change and a medium sensitivity can lead to an effect that is significant or not significant. In this case, the effect on the parts of the receptor that have a medium magnitude of change are assessed to be significant due to the orientation of landform towards the Proposed Development and the resultant appearance of the Proposed Development in the direct setting to the receptor.

Cumulative Effect

5.9.105 There is very intermittent and limited theoretical visibility of Corlic Hill (Inverclyde) and Priestside Farm wind farms from this receptor, as described above, and no visibility of consented or application sites that lie within 20 km. Theoretical visibility of the sites that lie beyond 20 km distance would not contribute to a significant cumulative effect. The cumulative effect on the landscape character of the Alexandria unit of Rolling Farmland - Glasgow & Clyde Valley LCT would be **not significant** in any scenario due to the lack of notable visibility and influence of other wind farms.

Rolling Farmland - Loch Lomond & the Trossachs (LCT 261)

Baseline and Sensitivity

5.9.106 Rolling Farmland - Loch Lomond & the Trossachs LCT is found in two areas near the Site; one larger tract of gently rolling farmland that lies between the Lowland Loch Basin of Loch Lomond and the northern edge of the Kilpatrick Hills unit of Rugged Moorland Hills LCT, and a second, smaller, area to the west of the River Leven, separated from the main area by the southern end of the Lowland Loch Basin. The characteristics of Rolling Farmland - Loch Lomond & the Trossachs LCT are described as follows by NatureScot.

- *"Generally rolling with some more complex drumlins in the north, but becoming more gently undulating to the east. A distinct pattern of low rolling ridges and wide flatbottomed valleys occurs to the south.*
- *Small hill of Duncryne, a key landmark feature in the area.*
- *Small fields of pasture enclosed by thorn, holly and beech hedgerows – ash and beech trees line some roads.*
- *Wetter valley bottoms with coniferous woodlands, rush-patterned damp pastures and small remnant moss with stands of birch.*
- *Regular pattern of small mixed woodlands, planted close to farms or as more extensive shelterbelts.*
- *Bright green pastures give a lush appearance, enhanced by white rendered farm buildings, sited on low rises.*
- *The busy A811 is aligned through this landscape, acting as a settlement focus.*
- *Breathtaking views of Loch Lomond and the high peaks which surround it from more open and elevated areas.*

5.9.107 The description also includes further detail on some relevant aspects of the landscape character.

"Rolling Farmland – Loch Lomond & the Trossachs lies at the foot of the uplands of Cameron and Blairquhomrie Muir [the latter of which lies within the same LCT as the Proposed Development]*. There is a strong contrast between the simple open moorland of these uplands and the patchwork of small fields and regularly dispersed farms of the Rolling Farmland – Loch Lomond & the Trossachs".*

"Views from the road are generally restricted by the rolling landform, glimpses of Loch Lomond are possible in places. More extensive and dramatic views over the Loch Lomond Basin and its mountainous setting are a feature from elevated ridges and from the small but prominent landmark hill of Duncryne."

5.9.108 Viewpoint 2 (Minor road north of site) and Viewpoint 7 (Duncryne Hill) lie within this receptor. Both of the views clearly show the contrast between the Kilpatrick Hills unit of the Rugged Moorland Hills LCT, within which the Proposed Development lies, and Rolling Farmland - Loch Lomond & the Trossachs LCT, as noted in the NatureScot description.

5.9.109 There are no wind farms within this receptor. Corlic Hill (Inverclyde) and Priestside both lie within 20 km but have very intermittent and limited theoretical visibility (as seen at Viewpoints 2 and 7). Earlsburn, Earlsburn North and the consented site at Shelloch have very limited and intermittent theoretical visibility from over 18 km away, also seen at Viewpoint 7. Wind farms that lie beyond 20 km away would not have potential to contribute to a significant cumulative effect.

5.9.110 This receptor has a high value; it lies wholly within LLTNP and partly within Loch Lomond NSA, and, to the north, overlooks both of these designated areas. It is generally intact with scenic qualities and a sense of place. The recreational value of the landscape also contributes to its value; NCR 7 passes through the landscape as do the John Muir Way and a number of core paths, while the Three Lochs Way runs along the southern boundary of the western area of the LCT. The susceptibility of the receptor is medium-high. This landscape is relatively complex in terms of both landform and landscape patterns, and this increases susceptibility due to the potential for scale comparisons to arise. There is also little evidence of large-scale human development. However, the landscape does not have a specific association with the Site area, with the predominant external influence arising to the north, from Loch Lomond (as noted in the description; "*Breathtaking views of Loch Lomond and the high peaks which surround it from more open and elevated areas*") rather than from the south, and this tempers susceptibility. The combination of a medium-high susceptibility and high value of the landscape results in a **high** sensitivity for the Lowland Farmland - Loch Lomond & the Trossachs LCT.

Magnitude of Change

5.9.111 The Proposed Development lies outwith this receptor and effects would therefore arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than as direct physical effects. The ZTV shows fairly consistent theoretical visibility of the Proposed Development from the LCT, ranging from approximately 2km up to approximately 7.5 km away in the north-western corner.

5.9.112 The maximum magnitude of change on this receptor would arise on the larger eastern area, and would range from **medium-high** to **medium**, dependent on distance from the Proposed Development, with closer areas generally undergoing a higher level of influence, but also on the orientation of landform – many parts of the undulating landform are orientated away from the Proposed Development, and on the level of screening by the woodland that is a characteristic of the landscape. A high magnitude of change is prevented by the orientation of the landform of the closer, southern part of the receptor away from the Proposed Development. Viewpoints 2 and 7 lie within this eastern area and illustrate the higher type of influence that the Proposed Development would have.

5.9.113 This high to medium magnitude of change on the eastern part of the receptor would arise as a result of the following considerations.

- The external influence of the Proposed Development would result in an alteration to the landscape setting of the receptor, arising from visibility of new, unfamiliar features that provide a clearly visible influence and introduce uncharacteristic elements in terms of movement, materials, colour, and structures.
- This receptor is relatively complex with, for example, a "*patchwork of small fields and regularly dispersed farms"* and the external influence of the Proposed Development on this small-scale landscape would result in scale comparisons.

5.9.114 The factors that restrict the magnitude of change to a maximum medium-high to medium level are as follows.

- There would be no direct physical effects on this receptor, and effects are perceived only. This ensures that a number of important characteristics of the landscape including those related to topography, landform, land cover and settlement patterns would remain unaffected by the Proposed Development.
- The Proposed Development would not affect the northwards views that are mentioned in the LCT description; "*Breathtaking views of Loch Lomond and the high peaks which surround it from more open and elevated areas*" and "*extensive and dramatic views over the Loch Lomond Basin and its mountainous setting*" and this setting of Loch Lomond would remain as a defining influence on the receptor.
- The northwards views are also the more formally valued views from the receptor as they overlook LLTNP and the Loch Lomond NSA, and this increases the benefit of their remaining unaffected by the Proposed Development.
- By contrast, the Proposed Development would be seen in the context of the relatively unremarkable Rugged Moorland Hills LCT within which the site lies. This is a large scale, simple landscape and scale comparisons between the Proposed Development and its landscape setting would not arise.
- As noted in the LCT description, "*there is a strong contrast between the simple open moorland of these uplands* [Cameron and Blairquhomrie Muir] *and the patchwork of small fields and regularly dispersed farms of the Rolling Farmland – Loch Lomond & the Trossachs*". This contrast is beneficial as the Proposed Development would be strongly associated with the upland landscape, preventing a perception of encroachment down into Rolling Farmland LCT.
- The undulating landform and forestry/woodland that characterise the Rolling Farmland LCT ensure that visibility and influence of the Proposed Development would be intermittent and limited from many parts of the receptor.

5.9.115 The magnitude of change on the character of the western part of the receptor, which is between 5 km and 7.5 km away from the Proposed Development, would be a maximum of **medium-low.** The landform of this area is orientated strongly to the north-east, away from Proposed Development (which is east-south-east of the receptor), and the main focus of the landscape is across and up Loch Lomond, including views towards Balloch Castle Country Park. There is also extensive screening by woodland belts. There are areas of both the eastern and western parts of the receptor where screening by landform, woodland, and other types of vegetation would reduce the influence of the Proposed Development, leading to a maximum **low** magnitude of change.

Significance of the Effect

5.9.116 The effect of the Proposed Development on the landscape character of Rolling Farmland – Loch Lomond & the Trossachs LCT would vary. The effect on the western part of the

receptor and areas of the eastern part would be **not significant** due to limited visibility/ influence of the Proposed Development and the resultant maximum medium-low magnitude of change. A combination of a medium-low magnitude of change and a high sensitivity can lead to an effect that is significant or not significant; in this case, the effect is assessed to be not significant due to the orientation of landform away from the Proposed Development and further screening by landform and vegetation. There would be a major or major/moderate and **significant** effect on some areas of the eastern part of the receptor, due to the combination of the factors that lead to a medium-high/medium magnitude of change despite the high sensitivity of the landscape. The significant effect would generally arise between approximately 2 km and 7 km from the nearest turbine.

Cumulative Effect

5.9.117 There is very limited and intermittent visibility of the operational wind farms at Earlsburn, Earlsburn North, Corlic Hill (Inverclyde) and Priestside Farm and the consented site at Shelloch, as described above. There is also very intermittent and limited theoretical visibility of the application site at Earlsburn Extension, which is over 20 km away but is considered as it forms part of the same cluster. The cumulative effect on the landscape character of Rolling Farmland – Loch Lomond & the Trossachs LCT would be **not significant** in any scenario due to the lack of notable visibility and influence of other wind farms.

Rugged Upland Farmland (LCT 202): Kilmacolm

Baseline and Sensitivity

5.9.118 The Kilmacolm unit of Rugged Upland Farmland LCT is an extensive landscape that lies to the south of the Clyde, forming the transition between the Raised Beach LCT and the Rugged Moorland Hills LCT of the Renfrewshire Heights. The relevant key characteristics are described as follows by NatureScot.

- *"Rugged landform comprising rocky bluffs and shallow troughs.*
- *Reservoirs in flooded troughs.*
- *Dominance of pastoral farming.*
- *Frequent tree cover often emphasising landform, for example concentrated on bluffs and outcrops.*
- *Settlement limited to farms and villages."*

5.9.119 Specific comments relating to the Kilmacolm unit are as follows.

"*The Kilmacolm area contains a number of small towns or villages including Kilmacolm, Bridge or Weir, Houston, Quarriers Village and Erskine."*

"The Kilmacolm area contains a number of designed landscapes, many of them relatively complete. Two, Duchal House and Formakin are listed in the Inventory of Gardens and designed Landscapes."

5.9.120 In OPEN's view, this description does not reflect the level of development that is apparent in the northern part of this unit. There is extensive residential development including, most notably, Erskine but also Bishopton, both of which cover a considerable area and exert a strong influence on the surrounding landscape. The M8, M898, A8 and A726 corridors

also pass through this area, as well as several railway lines. These factors ensure that this is not a rural landscape and does not have a 'farmland' character.

5.9.121 There are no viewpoints within this receptor.

5.9.122 There are no wind farms within this receptor, although there is a single small turbine (53.7 m to blade tip) at Cairncurran Farm at its western extremity. Corlic Hill (Inverclyde) and Priestside Farm lie just outwith the western end of the receptor and have limited and intermittent/very intermittent theoretical visibility. The Ardrossan group (including Ardrossan and Extension, Kelburn, Millour Hill and Extension and Wardlaw Wood) lies a minimum of 14 km away to the south-west and has very limited and intermittent visibility from the receptor, almost all gained from over 25 km away. Neilston and Middleton wind farms have very limited and intermittent theoretical visibility from a minimum of 10 km away, as does the consented site at Braco, 7 km away. Wind farms that lie beyond 20 km away would not have potential to contribute to a significant cumulative effect.

5.9.123 This receptor has a medium value; it does not lie within a scenic designation and has been affected by internal and external industrial and urban development. Parts of it do, however, overlook the Kilpatrick Hills LLA, and in some areas it retains characteristic vegetation patterns and has some recreational value – there are a number of core paths within the unit. The susceptibility of the receptor is also medium. This landscape is, in places, complex in terms of landscape patterns, and this increases susceptibility due to the potential for scale comparisons to arise. There is also some association between the receptor and the landscape within which the Site lies, as the Kilpatrick Hills rise to the north of the Clyde, while this unit forms the southern side. However, susceptibility is tempered by large-scale human development within and adjacent to the landscape, and its character is notably affected by human influences. The combination of a medium susceptibility and medium value of the landscape results in a **medium** sensitivity for the Kilmacolm unit of Rugged Upland Farmland LCT.

Magnitude of Change

5.9.124 The Proposed Development lies outwith this receptor and effects would therefore arise from changes to the way that the landscape character is perceived as a result of visibility of the Proposed Development rather than direct physical effects. The ZTV shows intermittent and sometimes limited theoretical visibility of the Proposed Development from this unit, primarily from the northern and southern areas, ranging from approximately 5.4 km up to 17.6 km away. The maximum magnitude of change on the receptor would be **medium-low**, arising on the northern area, closest to the Proposed Development. This magnitude of change would arise as a result of the following considerations.

- The external influence of the Proposed Development result in an alteration to the landscape setting of the receptor, arising from visibility of new, unfamiliar features that provide a visible influence and introduce uncharacteristic elements in terms of movement, materials, colour, and structures.
- In some places, landform is orientated northwards, towards the Proposed Development, so that it would be seen in the direct setting of the landscape.

5.9.125 The factors that restrict the magnitude of change to a medium-low level are as follows.

- There would be no direct physical effects on this receptor, and effects are perceived only. This ensures that a number of important characteristics of the

landscape including those related to topography, landform, land cover and settlement patterns would remain unaffected by the Proposed Development.

- The Proposed Development would be seen in the context of the large scale, simple landscape of Rugged Moorland Hills LCT, and, beneficially, scale comparisons between the Proposed Development and its landscape setting would not arise.
- Theoretical visibility as shown on the ZTV is limited and intermittent, reducing the influence of the Proposed Development. The "*frequent tree cover*" that characterises the LCT would provide further screening, thus limiting the external influence of the Proposed Development.
- The part of the LCT that lies at closer proximity to the Proposed Development is affected by extensive human development and does not display characteristics with which the Proposed Development would have the greatest contrast.

5.9.126 Around 9-10 km away from the Proposed Development there is a natural break in theoretical visibility of the Proposed Development. Here, and on the areas to the south of the break, the magnitude of change would reduce to a maximum **low** level due to reduced influence of the Proposed Development and its greater distance from the receptor.

Significance of the Effect

5.9.127 The effect of the Proposed Development on the Kilmacolm unit of Rugged Upland Farmland LCT would be moderate/minor and **not significant** due to the factors that lead to a maximum medium-low magnitude of change and the medium sensitivity.

Cumulative Effect

5.9.128 There is theoretical visibility of the operational wind farms at Priestside Farm, Corlic Hill (Inverclyde), the Ardrossan cluster and Neilston/Middleton from this receptor, and the consented site at Braco, as described above. There are no application stage wind farms within 20 km, and theoretical visibility of those sites that lie beyond this distance would not contribute to a significant cumulative effect. Two scenarios are therefore considered; the addition of the Proposed Development to the operational sites and the addition of the Proposed Development to operational sites plus the consented site at Braco.

5.9.129 In the operational cumulative scenario, the addition of the Proposed Development to Priestside Farm, Corlic Hill (Inverclyde), the Ardrossan cluster and Neilston/Middleton would have a **medium-low** cumulative magnitude of change. The magnitude of change would arise from the addition of the Proposed Development to the north of the receptor, in an aspect of the setting that is not currently affected by wind farm influence. The magnitude of change would be limited to this level by the very intermittent and limited theoretical visibility of the operational wind farms, particularly bearing in mind the generally modest height of the turbines; further screening of actual visibility by vegetation and buildings; the distance of the cumulative wind farms from the receptor; and the not significant effect of the Proposed Development itself. When the consented site at Braco is also considered, the magnitude of change arising from the addition of the Proposed Development would increase slightly but would remain **medium-low** due to the very limited and intermittent theoretical visibility of Braco and the relatively small turbines.

5.9.130 The cumulative effect in the scenarios of operational wind farms and operational plus consented wind farms would be **not significant** due to a combination of the factors that lead to the medium-low cumulative magnitude of change and the medium sensitivity of the receptor. No other cumulative scenarios are relevant.

Loch Lomond and the Trossachs National Park and Loch Lomond National Scenic Area

5.9.131 The assessment of effects on LLTNP and Loch Lomond NSA is based on the effects that the Proposed Development would have on Special Landscape Qualities (SLQs). The SLQs of LLTNP are set out in NatureScot/LLTNPA documentation[8], in which the overarching SLQs of LLTNP are presented as 'General Qualities', with further SLQs provided specifically for four landscape areas that form subdivisions of LLTNP; these are Argyll Forest, Loch Lomond, Breadalbane and The Trossachs.

5.9.132 Section 2.5 of NatureScot documentation (SNH, 2010) notes that

"There is strong overlap between the Loch Lomond landscape area used here and the boundaries of the Loch Lomond National Scenic Area (see maps). Hence If the special qualities of the Loch Lomond NSA are required, then they equate to the qualities of the landscape area under the heading Loch Lomond in Part 2 below."

5.9.133 This means that as the Loch Lomond NSA lies within LLTNP, its SLQs are not individually identified in NatureScot guidance in the way that they are for NSAs that lie outwith National Parks, and the SLQs of the Loch Lomond NSA are the same as those identified for the Loch Lomond area of LLTNP. The effects on the SLQs of LLTNP and the Loch Lomond NSA are therefore assessed together.

5.9.134 The assessment of effects on SLQs follows draft guidance set out by NatureScot[9] which is aimed specifically at landscape professionals undertaking LVIA for developments with potential to impact on the SLQs of NSAs or NPs. The draft guidance sets out a four-step approach, presented in a supporting pro forma, under the following four headings:

"Step 1: The Proposal – Gain as full an understanding of the proposal as possible;

Step 2: Definition of the Study Area and Scope of the Assessment - identifying the area likely to be affected;

Step 3: The Analysis of Impacts and Effects on SLQs; and

Step 4: Summary of Impacts on the SLQs, implications for the NSA/NP and possible future effects on SLQs and recommendations for mitigation."

5.9.135 There are no operational, under construction or consented wind farms within LLTNP or the Loch Lomond NSA. Of the wind farms that are included in the detailed cumulative assessment for the Proposed Development, there are several operational sites within 20 km of the boundary of LLTNP, of which the closest is Cruach Mhor, a minimum of approximately 3 km outwith the western edge of LLTNP. Other operational wind farms include Braes of Doune, a minimum of approximately 6 km to the east of LLTNP; Clachan Flats, 6 km to the west; Corlic Hill (Inverclyde) and Priestside Farm, approximately 11 km to the south; and the group of Earlsburn, Earlsburn North and Craigengelt, a minimum of approximately 12 km to the east. The consented site at Creag Dubh is a minimum of approximately 1.3 km away to the west, while Shelloch is 12 km to the east. Theoretical

[8] Scottish Natural Heritage and Loch Lomond and The Trossachs National Park Authority (2010). The special landscape qualities of the Loch Lomond and The Trossachs National Park. Scottish Natural Heritage Commissioned Report, No.376 (iBids and Project no 648)

[9] Guidance for Assessing the Effects on Special Landscape Qualities (SNH, November 2018)

visibility of these sites is negligible/limited and intermittent and is generally not gained in combination with visibility of the Proposed Development. The sites that lie closer to the boundary of LLTNP – Braes of Doune, Clachan Flats, Creag Dubh and Cruach Mhor – have a higher level of visibility and influence at close proximity but this is restricted to limited areas of LLTNP due to landform screening.

5.9.136 Viewpoint 2 (Minor road (John Muir Way/NCR 7) north of site), Viewpoint 4 (Balloch Castle Country Park access road), Viewpoint 5 (A811 Near Balloch), Viewpoint 7 (Duncryne Hill), Viewpoint 9 (Cameron House seaplane jetty), Viewpoint 11 (Inchcailloch), Viewpoint 12 (Endrick Viewpoint), Viewpoint 14 (WHW Near Drymen), Viewpoint 15 (Ben Bowie), Viewpoint 17 (Balmaha Harbour), Viewpoint 19 (Conic Hill), Viewpoint 20 (Waterbus), Viewpoint 21 (Bat a Charchel), Viewpoint 23 (Luss Campsite), Viewpoint 24 (Sallochy), Viewpoint 26 (Beinn Dubh), Viewpoint 27 (Inverbeg), Viewpoint 29 (Ben Lomond), Viewpoint 31 (Ben Venue), Viewpoint 32 (Tarbet) and Viewpoint 33 (Ben Ledi) are located within or on the edge of LLTNP.

5.9.137 Viewpoint 11, Viewpoint 12, Viewpoint 15, Viewpoint 17, Viewpoint 19, Viewpoint 20, Viewpoint 23, Viewpoint 24, Viewpoint 26, Viewpoint 27, Viewpoint 29 and Viewpoint 32 lie within or on the edge of the Loch Lomond NSA.

5.9.138 Prior to the assessment of effects in the subsequent steps, it is necessary to establish the sensitivity of LLTNP and the Loch Lomond NSA to the Proposed Development. The dramatic splendour of LLTNP, and the Loch Lomond NSA at its core, has shaped a wealth of cultural heritage, literary and music interests, as well as myth and folklore throughout the centuries. The area has long been popular with tourists, with the Trossachs being one of the first parts of Scotland to become celebrated as a recognised tourist destination due to its position on the southern edge of the Highlands and to the quality of the scenery, which may be considered to represent a microcosm of a typical Highland landscape. These factors underpin the perceptions that define the high value attributed to the nationally important LLTNP and NSA.

5.9.139 Both LLTNP and the Loch Lomond NSA have inherently high value due to their nationally important designation, which reflects the combination(s) of SLQs. The landscape is of high quality with a strong sense of place and notable scenic qualities, which have remained largely intact. The susceptibility of LLTNP and the Loch Lomond NSA to the Proposed Development is also high, due to the nature of the SLQs and the relationship between the SLQs and the Proposed Development. The combination of the high susceptibility to change of the NSA and its high value results in a **high** sensitivity for LLTNP and the Loch Lomond NSA.

Step 1: The Proposal

5.9.140 The aim of Step 1 is to "*gain as full an understanding of the proposal as possible*" by setting out the key aspects of the Proposed Development that have potential to affect the SLQs. A detailed description of the Proposed Development is provided in **Chapter 2: Proposed Development**. The key part of the Proposed Development that is relevant in the assessment of effects on SLQs is the ten proposed turbines (with a maximum blade tip height of 250 m), although the infrastructure and visible aviation lighting may contribute to effects. During construction and commissioning there would also be temporary works and plant including borrow pit extraction, a construction compound, and tall cranes.

5.9.141 The Proposed Development is located entirely outwith LLTNP and Loch Lomond NSA, with the nearest turbine lying approximately 1.9 km to the south of LLTNP boundary and 3.7 km to the south of the NSA boundary. Any effects on SLQs would therefore be indirect in nature, arising as a result of visibility of the Proposed Development and the way it affects perception of SLQs as experienced from outwith the LLTNP/NSA boundaries.

Step 2: Definition of The Study Area and Scope of the Assessment

5.9.142 Step 2 covers two aspects, "*firstly to identify the extent of the study area which will relate to the location and form of the proposal, and secondly the relationship of this study area to the wider NSA/NP*". The guidance goes on to note that "*the study area may include a part of the designated area, the whole of the designated area, or in some cases the study area may extend beyond the boundary of the designated area*" (paragraph 18).

5.9.143 The study area considered in the assessment is dependent to a large degree on the visibility of the Proposed Development and its relationship to the relevant SLQs. **Figures 5.11a** and **b** show the blade tip ZTV for the Proposed Development in relation to LLTNP and the Loch Lomond NSA. **Figure 5.11b**, which has a 20 km radius Study Area, also shows three of the four landscape areas of LLTNP - Argyll Forest, Loch Lomond, and The Trossachs; the fourth landscape area, Breadalbane, lies outwith the 20 km radius shown on this figure. These figures show that theoretical visibility of the Proposed Development is found primarily at the southern end of both LLTNP and the NSA while the northern parts of both LLTNP and the NSA are shown on the ZTV to have no or negligible theoretical visibility. The western and eastern parts of LLTNP gain intermittent/ very intermittent theoretical visibility of the Proposed Development. In relation to the landscape areas of LLTNP, the majority of theoretical visibility is found in the Loch Lomond area; very intermittent theoretical visibility is found in the Argyll Forest and The Trossachs areas; and negligible and distant theoretical visibility in the Breadalbane area.

5.9.144 The study area is therefore defined as covering the Argyll Forest, Loch Lomond, and The Trossachs landscape areas, as these are the only parts of the LLTNP where there is potential for significant effects on SLQs to arise due to visibility of the Proposed Development. This study area includes the whole of the Loch Lomond NSA.

Step 3: The Analysis of Impacts and Effects on SLQs

5.9.145 Step 3 sets out the assessment of effects that may arise on the study area as a result of the Proposed Development. There are four key components to this assessment:

1. identify those SLQs that have potential to be affected by the Proposed Development;
2. establish the key landscape characteristics that underpin the relevant SLQs;
3. assess the effects of the Proposed Development on the relevant SLQs; and
4. consider the potential for mitigation and determine the level of effect.

5.9.146 The first stage of Step 3 is to identify those SLQs that have potential to be affected by the Proposed Development. NatureScot guidance (SNH, 2018) notes that "*The relevant special landscape qualities would be those that one can experience within the study area (throughout the study area or in a part of the study area) and which may be affected by the proposal. Some of the SLQs we experience are dependent upon landscape characteristics and features beyond the boundary of the designated area. This is*

especially the case with visual and sensory qualities e.g. panoramic views, specific views, dark skies etc".

5.9.147 **Table 5.9** lists the relevant SLQs of LLTNP (as set out in NatureScot guidance (SNH, 2010)), including the NatureScot descriptions, and assesses whether or not the Proposed Development may affect how they are perceived or experienced from outwith the LLTNP/NSA boundaries. The SLQs listed are the general SLQs for the whole LLTNP followed by the specific SLQs for the three LLTNP landscape areas that constitute the study area (Argyll Forest, Loch Lomond, and The Trossachs). The SLQs of the Breadalbane area have not been included as they are not relevant to the study area. The SLQs have been numbered for ease of reference.

5.9.148 The second, third and fourth stages of Step 3 are incorporated into the assessment of effects on the relevant SLQs of LLTNP in **Table 5.9**. The headings in this table are set out to follow the examples provided by NatureScot in its guidance (SNH, 2018). However, the NatureScot example column titled 'Proposed mitigation and timescales' has not been included in **Table 5.9** as all mitigation is embedded in the final layout of the Proposed Development, and timescales can be assumed to be the lifetime of the Proposed Development.

Table 5.9: Special Landscape Qualities of LLTNP/Loch Lomond NSA

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
General Qualities	
SLQ1: A world-renowned landscape famed for its rural beauty *This world-renowned landscape has Loch Lomond as its centre, an immense, island studded loch that leads from the pastoral Lowlands into the heart of the mountainous Highlands, with dramatic contrasts in scenery along its length.* *The loch's iconic status is reinforced by the well-known traditional song that endows it with romantic connotations. The words are perceptive in encapsulating Loch Lomond's landscape, its 'bonnie banks, bonnie braes, shady glens, hieland hills, the steep, steep side of Ben Lomond, the wild birdies, the wild flowers, the sunshine on the waters'. This portrait underpins the 'love of the countryside' that the area engenders, so that the loch symbolises the rural beauty of Scotland, an appreciation that endures. Hence the loch and its surrounds epitomises Scotland: a distinctive and inspiring country of loch, farmland, glens and mountains.* *The loch was one of the highlights of the Scottish tour of the 18th and 19th centuries, when it was the visitor's last experience of Highland scenery or, where the route started from Glasgow, the first. In the accounts, poetry and paintings of these early travellers, a huge contrast was drawn between the sombre dramatic scenery of Glencoe and Loch Lomond's Highland pastoral beauty.*	
The Proposed Development would not affect the history and romantic connotations of Loch Lomond, including the well-known traditional song. There would be no direct effects upon the landscape of the loch and its setting, or the progression of the landscape within LLTNP from '*pastoral Lowlands into the heart of the mountainous Highlands'*. The Proposed Development would be seen in the wider setting of LLTNP, located to the south outwith its boundary, and is likely to have some effect on the perception of this wider setting, particularly the '*pastoral Lowlands'* that are found at its southern end. It would, however, be seen in the most developed and least dramatic, eye-catching part of the setting to LLTNP, and would have a very limited effect on the perception of '*the heart of the mountainous Highlands',* which would remain the focus to the north.	**Low**: the Proposed Development would not affect the history and romantic connotations of Loch Lomond, and would not have any direct effect on the progression and '*dramatic contrasts'* of landscape within LLTNP. The Proposed Development would have some perceived effect on the way that the wider setting of LLTNP is experienced, particularly towards the southern end, but is unlikely to significantly 'damage' LLTNP's perception as '*a world-renowned landscape famed for its rural beauty'.*

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
SLQ2: Wild and rugged highlands contrasting with pastoral lowlands *Mountains and large hill ranges are found across the Park, the massifs separated by sea lochs, freshwater lochs and deep, glacially scoured glens. The Arrochar Alps, the Luss Hills, the East Lomond hills, the Beinn Mhor hills, the Trossachs and the Breadalbane mountains are wild upland landscapes, all with distinctive characters. Individual, well known summits are present, including Ben Lomond, The Cobbler, Ben Vorlich, and Ben Venue.* *The flat-bottomed glens that penetrate the hills are inhabited and farmed, presenting a pleasing contrast to the bare hills and summits above. Additionally, the whole area of mountains and glens, comprising great tracts of wild and rugged land, contrasts sharply with the gentle, rolling, low-lying farmlands and parklands found in the south. The uplands, with their pasture on the glen floors, their sides of rough moorland, native woodland or dark conifer plantations and their craggy hills, presents a highly textured, more desolate and generally, less populated scene than the green and fertile lowlands.*	
The Proposed Development would not directly affect the landscape characteristics/ landform/ topography/ vegetation that distinguish the '*Wild and rugged highlands'* from the *'pastoral lowlands'*, and the contrast between these various parts of LLTNP would be maintained. The external influence of the Proposed Development would have some effect on the perceived wildness of upland landscapes, but this would be limited to those areas that gain readily apparent visibility of the turbines. The Arrochar alps, Beinn Mhor hills, Trossachs and Breadalbane mountains would not be notably affected due to their distance and limited visibility of the Proposed Development. It is relevant that where the Proposed Development is visible, it is seen in the context of the more developed and occupied southern end of LLTNP, where influences of development and settlement are already clearly apparent. Visibility of the Proposed Development from the glens is generally limited by enclosing landform, and the character of these areas would not be affected.	**Medium-low**: in some limited areas, where there is readily apparent visibility and influence of the Proposed Development, there would be some effect on the perception of '*Wild and rugged highlands contrasting with pastoral lowlands'*. The baseline features and elements of landform, topography and landscape patterns that characterise and distinguish the various parts of LLTNP would not be directly affected, with all current influences remaining apparent. The additional influence of the Proposed Development would be more apparent in the southern part of LLTNP, where there are some baseline characteristics of development and settlement.
SLQ3: Water in its many forms	

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
Water in its many forms is rarely absent from the view. There occur deep, indented sea lochs, long inland lochs, some straight, some sinuous, lochans, rivers, burns, waterfalls and rapids; a lowland lake, and also wetlands, marshes and mires of many sizes and types. This great variety in combination with the range of landscape settings results in a diverse and beautiful landscape. As well as Loch Lomond itself, other well-known lochs are Loch Katrine, Loch Earn, Loch Voil and the Lake of Menteith.	
The Proposed Development would not physically affect the watercourses and waterbodies that are found in LLTNP, or the relationship between them and the way that they are combined in the landscape. However, in some areas, the Proposed Development would be seen in the background landscape setting of southwards views across water, where it would alter visual composition.	**Low**: the Proposed Development would not physically affect '*water in its many forms'* within LLTNP, but would in some areas be seen in the backdrop of views across water, thus altering the composition of the view.
SLQ4: Settlements nestled within a vast natural backdrop *The area possesses a long and rich history of habitation, with houses and other structures, both ancient and modern, confined mainly to the lower-lying land. Nowadays human populations are low across much of the Park, and the settlements that are present are often small-scale, nestled within the backdrop of vast landforms of mountain, hill, glen and loch. This engenders a strong sense of surrounding, all-enveloping nature, even though much of the landscape has been modified by human activity over the centuries.*	
The Proposed Development would not directly affect the settlement and habitation patterns in LLTNP in any way, and the location of the Proposed Development outwith LLTNP ensures that it would not affect the '*vast natural backdrop'* that the landscape within the Park provides to the settlements that lie within its boundary. It is not possible for the Proposed Development to be seen in the '*backdrop of vast landforms of mountain, hill, glen and loch'* that LLTNP provides to those settlements that lie within its boundary due to its location outwith the southern boundary of LLTNP. Moreover, the '*backdrop of vast landforms of mountain, hill, glen and loch'* of LLTNP is not found at the southern end of LLTNP, where the Park boundary is contiguous with the lowland Rolling Farmland – Loch Lomond &	**Negligible**: the Proposed Development would not affect the setting of '*Settlements nestled within a vast natural backdrop'* in LLTNP. This is due to its location to the south of the Park, where it would not be seen in relation to the '*backdrop of vast landforms of mountain, hill, glen and loch'* that provides the setting to some settlements within the Park.

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
the Trossachs LCT and does not extend into the Rugged Upland Moorland of the Kilpatrick Hills.	
SLQ5: Famous through-routes *Throughout the Park, major communication routes lead along the main glens. These long-established routes, both roads and tracks, date from many different periods. They overlie one another because they are constrained within narrow passes, so that there is a concentration of features – road and rail bridges, viaducts, ancillary buildings, lengths of track and road – often all intervisible, within short distances of each other. Some routes have associations with late medieval pilgrimages, such as to sites associated with St Fillan, and the earliest droving routes formed the basis for the early 18th century military roads leading north and westwards.* *The 19th century saw the arrival of the railways. Some have since disappeared, leaving a legacy of bridges and viaducts that remain as marked features. The scenic and world-renowned West Highland Railway traverses the Park, through the contrasting scenery of inhabited villages, farmland, loch shore, glens, moorland and mountainside. The 20th century saw the creation of the West Highland Way, giving the opportunity for a slower journey from lowland to highland, deep into the Breadalbane mountains and beyond. Overall, these routes create a strong sense of movement through the area, with the National Park being at the crossroads of cultures and human transport throughout time.*	
The Proposed Development would not directly, physically affect any routes, bridges, viaducts or other associated infrastructure within LLTNP, including the West Highland Line, the route of which through '*the contrasting scenery of inhabited villages, farmland, loch shore, glens, moorland and mountainside*' would not be altered. The Proposed Development is assessed to have a not significant effect on views from the part of this railway that passes through LLTNP. While there would be significant effects on views from a part of WHW, its '*journey from lowland to highland'* would not be altered, and neither would the historical connections and the '*strong sense of movement through the area'*.	**Negligible**: the Proposed Development would not have an effect on the '*famous through-routes'* that are found in LLTNP.
SLQ6: Tranquillity *It is easy to find tranquillity within the Park, to find uncrowded places where there is a predominance of natural sounds and sights, whether beside a shimmering loch, following the course of a mountain burn, walking the sheltered woodlands or climbing an open hill.*	

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
This sense of peacefulness is enhanced by the small scale of human settlement within the expansive landforms, and by the general absence of large-scale development.	
The Proposed Development is located outwith LLTNP and would therefore not directly affect the '*predominance of natural sounds and sights, whether beside a shimmering loch, following the course of a mountain burn, walking the sheltered woodlands or climbing an open hill*' that characterise LLTNP. The addition of an external influence of large-scale development may, however, affect the perception of scale of human elements from those parts of LLTNP where the Proposed Development would be readily apparent and have a significant landscape/visual effect. The movement of the turbines would be apparent from some areas, and this can also affect tranquillity. However, the parts of LLTNP that are likely to be most affected by the Proposed Development are often those areas that have a greater baseline human influence and level of activity and movement, including hotels, housing, busy roads, tourist facilities, and water-based activity. While the Proposed Development would be a readily apparent external influence on some areas, the presence of these elements would reduce the contrast of the Proposed Development with the baseline external influences on the Park.	**Medium-low**: there would be an indirect, perceived effect on the '*tranquillity*' of some parts of LLTNP. This would be restricted to areas where the scale and movement of the Proposed Development are readily apparent, and would be an indirect, perceived effect, with the features and elements within LLTNP that currently contribute to tranquillity remaining unaltered.
SLQ7: The easily accessible landscape splendour *The landscape splendour of the Park is easily accessible from major centres of population within the Central Belt, with some three million people within one hour's easy travel. Although the area is popularly known as 'Glasgow's playground', it is also a major draw for visitors not just from nearby Glasgow but from all over the world. It is a prime tourist destination, and an end it itself, with many not venturing further into the Highlands beyond.*	
The Proposed Development would not affect the accessibility of LLTNP in any way, and the Park would remain '*easily accessible from major centres of population'*. There is no reason to believe that the Proposed Development would reduce LLTNP's role as a	**Negligible**: the Proposed Development would not have an effect on the accessibility of LLTNP.

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
'*major draw for visitors not just from nearby Glasgow but from all over the world*' and a '*prime tourist destination'.*	
Argyll Forest Qualities	
SLQ8: A remote area of high hills and deep glens *This is a mountainous area of distinctive summits rising above forested slopes and steepsided, glacially-carved troughs filled with sea lochs, lochs or flat-bottomed glens. The uplands are rugged and wild, especially in the north, and the whole area has a sense of remoteness and isolation, emphasised by the sometimes persistent cloud, drizzle or rain.* *The high mountains and long sea lochs restrict access by road into the area, so that travel by sea has always been the easiest, preferred means of travel. This continues today with the ferries across the Firth of Clyde providing access into Holy Loch, Loch Goil and the lower reaches of Loch Long.*	
The Proposed Development would not affect the landform and topography of the hills and glens of the Argyll Forest, and would not alter the current restricted access into the area. While the Proposed Development may be discernible from the '*rugged and wild uplands',* their sense of '*remoteness and isolation'* would not be notably affected as theoretical visibility from the Argyll Forest area is very intermittent and gained from over 23 km away. Moreover, the majority of this theoretical visibility is gained from the east-facing coastline of the Argyll Forest area rather than the '*high hills and deep glens'* that are the subject of the SLQ.	**Low**: the Proposed Development would not have a notable effect on the '*remote area of high hills and deep glens'* of the Argyll Forest.
SLQ9: A land of forests and trees NB this SLQ is not quoted in full as an assessment can be made as to the likely effect without provision of the full text. *Extensive conifer plantings cover most of the lower hillsides, with the afforested tracts of such vast scale and density that they are a distinguishing feature of the scenery. In places broadleaved woodland clothes the lower hill slopes and glen floors, providing a lighter foreground to the dark backdrop of coniferous plantations. However, compared to the more open-canopied Lomondside woods of broadleaf trees, this rugged hill country of afforested slopes can appear sombre, especially on a cloudy, dull day.*	
The Proposed Development would not in any way affect the forests and trees of the Argyll Forest area	**Negligible**: the Proposed Development would not affect the '*forests and trees'* of the Argyll Forest.

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
SLQ10: Arrochar's mountainous and distinctive peaks *A distinctive mountain group, popularly called the Arrochar Alps, fills the northern corner, and extends into the Loch Lomond area. The hills are visually striking, curiously-shaped, and rocky with craggy peaks and crests. Each is distinctive and recognisable. They are highly visible from the shores and open waters of Loch Long and Loch Lomond and offer spectacular panoramas from their summits. Their proximity to the sea means that snow seldom lies deep on the summits.* *These hills are important in the history of Scottish mountaineering, principally because they provide good climbing and are easily accessible from Glasgow, whether by train or car or, in the past, by steamer to Arrochar. Although popular with climbers, nevertheless the tops harbour a sense of remoteness and stillness, away from the busy road through Glen Croe at the head of Loch Long.*	
The location of the Proposed Development at the southern end of Loch Lomond ensures that it would not affect views *towards* the Arrochar mountains from '*the shores and open waters of Loch Long and Loch Lomond'*. It would also not affect the accessibility of the Arrochar mountains or their importance in '*the history of Scottish mountaineering'*. While the Proposed Development may be discernible from some peaks, it would not notably affect their '*sense of remoteness and stillness'* as visibility from the Arrochar mountains is gained from a minimum of 29 km away.	**Low**: the Proposed Development would not have a notable effect on '*Arrochar's mountainous and distinctive peaks*'.
SLQ11: The variety of glens NB this SLQ is not quoted in full as an assessment can be made as to the likely effect without provision of the full text. *Deep glens carve through the uplands, their floors permanent pasture and their slopes often afforested. All are generally quiet and peaceful, with built development and habitation sparse, although each has its own distinct character.*	
The Proposed Development would not affect the landform, topography or vegetation of the glens in the Argyll Forest area. The Proposed Development has negligible and distant theoretical visibility from the glens and would not notably affect their '*generally quiet and peaceful'* nature.	**Negligible**: the Proposed Development would not have a discernible effect on the '*variety of glens'* in the Argyll Forest area.
SLQ12: The slender jewel of Loch Eck	

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
NB this SLQ is not quoted in full as an assessment can be made as to the likely effect without provision of the full text. *Loch Eck has been described as the jewel of the Argyll Forest Park, lying as a long, narrow, gently winding ribbon of silver, shining against its surrounding, thickly-afforested slopes. It fills the glen floor, with only a very narrow margin passable to travellers. Settlement along the western shore is nowadays confined to a single isolated farmstead at Bernice, although ruins at Stuck indicate that this has not always been the case. The loch feels very tranquil, quiet and remote, even empty and wild.* *Views over Loch Eck are impressive, whether from the loch shores where unobstructed by trees, or from high ground such as pass over from Glen Finart.*	
The Proposed Development would not have any direct effects on the landform, topography and land use that form the setting to Loch Eck. The '*very tranquil, quiet and remote, even empty and wild'* perception would not be affected as the Proposed Development is not visible from the loch, and there is no visibility of the Proposed Development from the loch shores or the pass through Glen Finart.	**Negligible**: the Proposed Development would not have an effect on the '*slender jewel of Loch Eck'*.
SLQ13: The dramatic pass of Rest and Be Thankful NB this SLQ is not quoted in full as an assessment can be made as to the likely effect without provision of the full text. *The dramatic mountain pass through Glen Croe forms a natural, major route leading through the mountain ranges between Lochs Long and Fyne. It provides a long uphill passage into the Western Highlands, marked by tumbling burns and waterfalls, with views back down to the distant mountains enclosing Lochs Long and Lomond. This memorable view is framed between, on the one side, the impressive series of steep, rocky hill slopes of Beinn an Lochain, Ben Donich and The Brack, and on the other, the Arrochar massif. The desolate, wild qualities of Glens Croe and Kinglas derive from their contrast with the greener, lusher shores of Lomondside to the east and the ducal splendours of the Inveraray policies to the west.*	
The Proposed Development would not have any direct effect on the landform and topography of Glen Croe/the Rest and Be Thankful pass. The Proposed Development is not visible from Glen Croe or the A83 as it passes through the glen, and '*views back down to the distant mountains enclosing Lochs Long and Lomond'* would therefore not be affected. The lack of visibility of the Proposed Development also ensures that the '*desolate, wild qualities of Glens Croe and Kinglas'* would not be affected.	**Negligible**: the Proposed Development would not affect the '*dramatic pass of Rest and Be Thankful*'.

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
SLQ14: The seaside architecture of Kilmun and Blairmore NB this SLQ is not quoted in full as an assessment can be made as to the likely effect without provision of the full text. *The Clyde coast resorts of Kilmun and Blairmore, extending around the tip of the Cowal peninsula, possess a distinctive 'seaside resort' architectural quality not found elsewhere in the National Park. They provide good coastal views over Loch Long, across to the far shores of the Roseneath peninsula, Helensburgh and the Clyde coast.*	
The Proposed Development would not directly affect the architecture of Kilmun and Blairmore. There is no visibility of the Proposed Development from Kilmun and Blairmore, and the '*good coastal views over Loch Long, across to the far shores of the Roseneath peninsula, Helensburgh and the Clyde coast*' from these specific locations would not be affected. There is some intermittent theoretical visibility at Strone, from where views of the Clyde coast could theoretically be affected. However, the Proposed Development lies over 23.5 km away and would not have a notable effect on the view.	**Negligible**: the Proposed Development would not have a discernible effect on '*The seaside architecture of Kilmun and Blairmore*'.
Loch Lomond Qualities	
SLQ15: Immensity of loch and landscape *Loch Lomond is a truly vast, capacious area of freshwater, the largest expanse in Britain, covering an area of 70 square kilometres and 36 kilometres in length. It is surrounded by mountains and high hill ranges along its northern half, with Ben Lomond soaring to 974 metres, dominating the western skyline, and the Arrochar Alps to the northwest reaching 1011 metres on the summit of Ben Ime.* *These vast waters and high summits make for a landscape and sense of space that is expansive and large-scale. By comparison, within these naturally majestic surroundings, individual human and man-made elements appear small and modest. They are often barely discernible against the larger, rolling backdrop, and the substantial, horizontal and bulky landmass. When man-made features are clearly seen, as at Inveruglas where the Sloy power station with the hydro-electric pipeline descends the steep slopes, the overwhelming broadness of the hill slopes can make such a large-scale engineering installation appear modest in scale. At the same time, piers and jetties along the shore-edge attest the long use of the Loch for industry and recreation.*	
The Proposed Development would not directly affect the expanse of water in Loch Lomond, or the surrounding hills/ ranges of Ben Lomond and the Arrochar mountains and, in terms of an external	**Medium-low**: the majority of this SLQ would not be affected. However, in areas where they are clearly apparent, the turbines can lead to scale comparisons that alter the baseline perception

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
influence, would be seen in the context of the *'piers and jetties along the shore-edge* [that] *attest the long use of the Loch for industry and recreation'.* It may alter the perceived scale relationships of man-made elements in relation to the landscape due to the introduction of the turbines, which would be of a larger scale than other human elements around the loch. However, it would not introduce large-scale elements directly into LLTNP, but would rather be a perceived external influence, and would be seen in the large-scale and relatively uniform setting of the Kilpatrick Hills, which form a relatively unremarkable part of the setting around Loch Lomond.	of the '*Immensity of loch and landscape'*. This would be an indirect, perceived effect, and the landform and topography (including the loch itself) within LLTNP that currently contribute to the '*Immensity of loch and landscape'* would not be altered.
SLQ16: Two lochs in one *Loch Lomond has a remarkable geographic position, being the one loch that sits astride the Highland Boundary Fault and hence comprising characteristics both lowland and highland:* *The Lowland 'Lake': From the south the loch has the character of a southern, lowland lake, settled and prosperous. It appears broad and shallow, with gently shelving banks. Its shores abound with rolling farmland and farmsteads, with designed landscapes surrounding country mansions together with their attached policies, and estate villages. Neat and ordered, the rectilinear enclosed fields are bounded by shelter belts and copses. The loch itself bears the evidence of human use: as well as numerous piers and jetties, there is notably a rare timber crannog in the water near Balmaha, the remains of a medieval church on the island of Inchcailloch, and other ruins and deserted settlements on the islands and shores of the loch.* *The Highland Loch: In the north, Loch Lomond fills a great, deep glacial trough surrounded by steeply sloping hillsides with only a narrow lochside margin. The loch is fjord-like, being narrow, linear, and deep (153m). In some views it appears as a broad and mighty river snaking through interlocking mountain ranges to reach its northern head at Ardlui. Settlement in this northern tract is sparse and low density, lying along the main road that hugs the western shore. The east shore north of Rowardennan is largely uninhabited. What farmland there is, at the head of the loch and along the pass to Arrochar, is characterised by enclosed pasture, although many of the drystone dykes are now relict. The ruinous remains of settlements and field systems that can be seen along most of glens leading down to the loch show that these areas were once more settled than they are now, adding to the sense of time-depth and local character.*	
The Proposed Development would not directly affect the geographical position of the loch in relation to the Highland Boundary Fault, and the geology/ landscape characteristics/	**Low**: there would be some effect on the perception that Loch Lomond is '*Two lochs in one'*, but this would not be readily apparent. While the Proposed Development could add an

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
landform/ topography that distinguish the setting of the loch to the south and north would not be affected. The contrast between the lowland and highland/north and south parts of the loch would also not be affected. The principal visibility/influence of the Proposed Development would be from/on the southern part of Loch Lomond, which is in closer proximity and, due to the more open nature of the loch, has clearer southwards visibility towards the Site. Visibility from/ influence on the northern part would be more limited due to increased distance and the screening of views by headlands, islands and woodland, and as a result of the tighter and more enclosed and nature of the northern loch. The Proposed Development would therefore be more visible/ influential in relation to the southern part of the loch, where '*The loch itself bears the evidence of human use'*. Here, it would introduce a human element of larger scale and greater visibility/influence than baseline features, thus affecting the character of those parts of the southern loch from where the Proposed Development is visible. Where it is visible from the northern loch, it would affect the more remote and enclosed character of this area; the level of influence would, however, be limited due to the increased distance and lower level of visibility. The influence of the Proposed Development on the northern part of the loch is not considered to be sufficient to blur the contrast between the northern and southern parts of the loch.	external influence to the way the loch is perceived (largely in the southern part), the baseline features and elements of geology, landform, topography and the landscape that characterise and distinguish the northern and southern parts of the loch would not be affected, with all current influences remaining apparent. The additional influence of the Proposed Development would be more apparent in the southern part of the loch, where '*the loch itself bears the evidence of human use'.*
SLQ17: A multitude of beautiful islands *The southern loch has numerous islands of various shapes and sizes, and this island studded scene is one of the most distinctive, well-known images of Loch Lomond. In contrast, the northern half is nearly island-free, with only a few small, round islets.* *The linear spread of islands parallel to the south shore and across the widest section of the loch emphasises the horizontality of both loch and shoreline in views from the south, such as from Duncryne Hill. The islands are made up of small hillocks, knolls and hummocks, a form that contrasts with the surrounding mountain ranges, especially those to north and west. This makes the islands*	

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
strongly appealing, inviting and tantalisingly accessible. Additionally, they are mostly tree-covered which provides a sense of unity with the wooded loch shores and a sense of seclusion when visited, a quality which in earlier times must have added to their attractiveness for settlement, defence and religious retreat. *As well as their contribution to the overall scene, the islands are in themselves highly distinctive, each varying in character. Some are inhabited, and many have a long history of habitation, with important remains still visible.*	
The Proposed Development would not directly affect the islands of Loch Lomond in any way e.g. in terms of landform, topography, tree cover, habitation or distinctiveness. It would also not affect their contrast with the '*surrounding mountain ranges, especially those to north and west'* or views towards the islands in views from the southern end of LLTNP (e.g. Duncryne Hill) as the Site lies to the south of these features. As noted in the SLQ, the islands are '*mostly tree-covered'*, and this notably restricts visibility of the Proposed Development from them, as seen at Viewpoint 11 (Inchcailloch).	**Low**: the Proposed Development would not have a notable effect on the *'multitude of beautiful islands'* in Loch Lomond.
SLQ18: Distinctive mountain groups *Loch Lomond and its immediate surrounds are enclosed by hills and mountains on three sides which provide an impressive backdrop to views across the loch and grand panoramas from their summits. The three major mountain groups are each distinctive in their own way, adding to the variety of scene around the shores.* *North of Tarbert the loch is over-shadowed on its west side by the Arrochar Alps. These are large in scale and highly irregular in form, with craggy peaks rising from broad rocky ridges and slopes. They are cut by U-shaped valleys and deeply incised glens. Large forestry plantations cover the lower slopes, especially the distinctive conical hill of Cruach Tairbeirt that lies directly on Loch Lomond's shores, and heads the Arrochar-Tarbert corridor.* *Enclosing Loch Lomond to the west are the Luss Hills ranging from Glen Fruin in the south to Tarbert. This is a large upland hinterland of rounded conical hills and smooth, sweeping slopes dissected by broad U-shaped valleys.* *To the east are the East Lomond Uplands with their steep, craggy slopes. The ridges lie parallel to the loch, interrupted by peaks and dissected by steep valleys. South of Ben Lomond the uplands become less dramatic in form, the hill sides dropping more gently to the loch shores until they eventually form a series of foothills to merge with the moorlands and pasture lowlands of the southern loch shores. The outlier of Conic Hill is striking with its whaleback ridge.*	

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
The Proposed Development would not directly affect the three '*distinctive mountain groups'* in any way (e.g. landform, topography, land use, vegetation) and their distinguishing characteristics would not be altered. The location of the Proposed Development to the south of the loch while the mountain groups are to the north, east and west ensures that views between the three mountain groups and views of the mountains across the loch, from the loch itself, or its banks, would not be affected by the Proposed Development as it would not be seen in the context of any of the mountains. Views of the mountain groups from the southern extremity of LLTNP (e.g. Duncryne Hill) would also not be affected as the Proposed Development lies further south still.	**Negligible**: the Proposed Development would not have a discernible effect on the *'Distinctive mountain groups'* that are found to the north, west and east of Loch Lomond.
SLQ19: Ben Lomond, widely known, popularly frequented *Ben Lomond, the most southerly Munro at 974m (3195ft) towers over Loch Lomond's eastern shores. With its distinctive sloping ridge suddenly giving way to its steep, summit slopes, it is a distinctive landmark visible from as far away as Edinburgh.* *Sometimes known as 'Glasgow's Hill', it is easily accessible from the city, attracting some 30,000 visitors a year to its summit. Its popularity and qualities are widely expressed in poetry, painting and travelogues of climbers and visitors. Its summit offers a superb viewpoint with views extending across much of the Southern Highlands and the Central Lowlands.*	
The Proposed Development would not directly affect Ben Lomond in any way (e.g. in terms of landform) and would not affect the distinctive landmark that it provides in views, or its accessibility from Glasgow. The presence of the Proposed Development is unlikely to affect the expression of its popularity in '*poetry, painting and travelogues'*. The Proposed Development would be seen in views from Ben Lomond (see Viewpoint 29), in the context of the '*views extending across much of the Southern Highlands and the Central Lowlands'.* The viewpoint assessment for Viewpoint 29 in this LVIA assesses the effect on this view to have a low magnitude of change and be not significant.	**Low**: the Proposed Development would have no effect on the majority of aspects of this SLQ, and would have a not significant effect on the view from Ben Lomond.

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
SLQ20: Banks of broadleaved woodland NB this SLQ is not quoted in full as an assessment can be made as to the likely effect without provision of the full text. *Broadleaved woodlands clothe most of Loch Lomond's banks, growing alongside the open water and on the lower and middle hill slopes up to about 500m. The upper tree-line is often clearly visible along the loch's length, accentuating the loch's linearity. Woods on the upper slopes can be stunted and more scattered, giving an appearance of trees hanging on to less accessible rock outcrops and gullies.*	
The Proposed Development would not in any way affect the broadleaved woodland of the Loch Lomond area of LLTNP.	**Negligible**: the Proposed Development would not affect the '*banks of broadleaved woodland'* of the Loch Lomond area.
SLQ21: Peaceful side glens *Peaceful countryside is readily accessible along the glens that lead down to Loch Lomond. Glen Luss, deeply enfolded and set into the surrounding hills, leads deep into the interior of the Luss Hills. From within there are surprising long distance views out onto Loch Lomond and the glen retains a distinct pastoral, sheltered character with a feeling of remoteness. The estate style of the village of Luss at the base of the glen, and of the farms and cottages within the glen, lend a distinctive uniformity of style.* *In contrast to this, is Glen Douglas where long distance views out over Loch Lomond are lacking. The glen is enclosed by rough slopes with a few stock farms set regularly along the way, the cattle enlivening the scene which otherwise could appear desolate. The glen floor is broader and flatter than that of Glen Luss, and there is a confined sense of passing through and between mountain ranges, whereas in Glen Luss the sense is of constantly climbing upwards into the interior of the highlands, the road clinging onto the steep slopes.*	
There is theoretical visibility of the Proposed Development from the eastern end of Glen Luss, particularly from the northern side of the glen where landform is orientated to the south. Views out from here are generally orientated to the east, across the loch, or south, across the glen, which has a strongly enclosed and *'distinct pastoral, sheltered character with a feeling of remoteness',* as noted in the SLQ. Woodland provides extensive screening of views. The village of Luss has very little visibility of the Proposed Development due to screening by landform and woodland, and the highest type of visibility is as shown at Viewpoint 23 (Luss campsite), which gains higher visibility than the rest of the	**Low**: the Proposed Development would have some limited visibility from/influence on the eastern end of the '*Peaceful side glen'* of Glen Luss. At a minimum of 14 km away, this would not be readily apparent, and would affect a small part of the glen. Glen Douglas would have a very limited influence.

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
settlement as it projects into the loch on a headland. Glen Luss lies a minimum of 14 km away from the Proposed Development. There is one small area of theoretical visibility of the Proposed Development at the eastern extremity of Glen Douglas (with the highest level of visibility shown in Viewpoint 27 (Inverbeg)) and this side glen would not be notably affected by the Proposed Development.	
The Trossachs Qualities	
SLQ22: A traditional 'Gateway to the Highlands' *The Trossachs occupies a small area that defines the transition from the settled pastoral Lowlands to the rugged Highlands. From the south, after travelling through a gentle landscape of fields and farms it offers the first hint of the wilder lands to the north and west and is sometimes called 'the Highlands in Miniature'. It is generally regarded as a very attractive and comforting landscape, and occasionally spectacular.* *As with Loch Lomond and its surrounds, the area is at once the 'Gateway to the Highlands' and also a goal, beyond which many will choose not to venture, instead sampling this inviting Scottish idyll where views can vary from the expansive to the intimate: from a large loch with the mountains beyond, to a mere glimpse of a loch or a hill through a gap in the woods, through to a moss-covered crag amongst the trees. The summit of Ben Venue is a particularly good place for grand panoramic views, northward to the Highlands, southward to the Lowlands.*	
There is very little theoretical visibility of the Proposed Development from the roads that provide the majority of access into and through the '*gateway to the Highlands'* of the Trossachs. There is no theoretical visibility from the A821 other than a very short stretch just to the north of Aberfoyle, over 22 km away, and no visibility from the dead-end B829, from Aberfoyle to Loch Katrine. There is theoretical visibility from the A81 (which in part follows the boundary of LLTNP) between Braeval and the B822 junction, but at over 22 km away the Proposed Development would have a very limited influence on views. There is no visibility of the Proposed Development from the popular locations of Loch	**Low**: the Proposed Development would have some theoretical visibility from parts of the '*traditional 'Gateway to the Highlands'* of the Trossachs. However, the great majority of the area, including a number of tourist destinations, would gain no visibility of the Proposed Development. Where the Proposed Development would be visible, e.g. Ben Venue, it would be seen from a considerable distance away, and the influence would not be readily apparent.

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
Katrine, Loch Venachar, Loch Achray, Loch Arklet, Brig o' Turk, and Callander, and negligible visibility from Aberfoyle. Ben Venue – '*a particularly good place for grand panoramic views, northward to the Highlands, southward to the Lowlands'* – is included as Viewpoint 31; the Proposed Development is assessed as having a low magnitude of change and not significant effect on the view.	
SLQ23: A harmonious concentration of lochs, woods and hills *The beauty of the Trossachs lies in the tight concentration and harmonious blending of the three elements of loch, woodland and open hill. Broadleaved woodland frames the lochs, being particularly attractive around Loch Achray and the eastern end of Loch Katrine, and frames the open hillsides, particularly those of the dominant Ben Venue.* *The change from water to woodland, and woodland to open hillside is sometimes transitional, broken and intricate, as in Loch Katrine's relationship with Ben Venue or in the wood pastures of Glen Finglas; and sometimes the change can be abrupt, as in upper Gleann Riabhach's plantations. Frequently the three elements come together to give a horizontal banding to the glens, from loch through trees to the open hill.*	
The Proposed Development would not directly physically affect the '*lochs, woods and hills'* in any way (e.g. landform, topography, land use, vegetation) and the relationship between them would not be altered.	**Negligible**: the Proposed Development would not have an effect on the *'harmonious concentration of lochs, woods and hills'* that are found in The Trossachs area.
SLQ24: Rugged Ben Venue, the centrepiece of the Trossachs *From many approaches the alpine-like profile of the upper open slopes of Ben Venue stand out, suggesting a mountain of greater stature and challenge than its actual height of 729m. It is, nevertheless, the centrepiece of the Trossachs and guards the narrow entrance to the beauty of Loch Katrine and the expanse of the Highlands beyond.*	
The Proposed Development would not directly affect Ben Venue in any way, or alter its relationship with the wider Trossachs landscape, including Loch Katrine '*and the expanse of the Highlands beyond'.* The Proposed Development would not be seen in relation to Ben Venue, and no scale comparison would be made between the mountain and the turbines.	**Negligible**: the Proposed Development would not have an effect on *'Rugged Ben Venue, the centrepiece of the Trossachs*'.

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
SLQ25: Loch Katrine, the 'Queen of the Trossachs' *Loch Katrine is perceived as the Queen of the Trossachs. Dominated by Ben Venue, it offers the viewer both intimate close vistas of inlet and dense woodland, hinting at its depth, and yet also the chance of further travel beyond the comfort of the Trossachs and into the openness of the glens beyond. Its popularity now owes much to the presence of the last steam driven passenger vessel operating in Britain, fittingly named the Steam Ship Sir Walter Scott. Together with Loch Arklet, it also offers a blend of blend of beauty and utility, the latter arising from the structures associated with the 19th century waterworks, designed to supply water to the city of Glasgow.*	
The Proposed Development would not directly affect Loch Katrine, and has no visibility from the loch or its surroundings.	**Negligible**: the Proposed Development would not have an effect on *'Loch Katrine, the 'Queen of the Trossachs'.*
SLQ26: A landscape of beautiful lochs NB this SLQ is not quoted in full as an assessment can be made as to the likely effect without provision of the full text. *The lochs are essential components of the overall blend, yet each loch has its own distinct character. Only Loch Achray can make claim to being a natural entity, with the others all shaped to varying degrees by water supply infrastructure. Yet the Victorian infrastructure possesses great historical and aesthetic interest in its own right.*	
The Proposed Development would not directly affect the Trossachs lochs, or the characteristics that distinguish them from one another.	**Negligible**: the Proposed Development would not have an effect on the *'landscape of beautiful lochs'* in the Trossachs.
SLQ27: The romance of the Trossachs *Many writers, poets and artists have been drawn to the romantic shores of Katrine, including William and Dorothy Wordsworth, Samuel Coleridge, James Hogg and John Ruskin. But it was the publishing of Sir Walter Scott's romantic poem Lady of the Lake in 1810 and his novel Rob Roy in 1817 that brought fame and popularity to the scenery of the area, establishing the Trossachs as a major tourist attraction, perhaps the epitome of the romantic highland landscape. In Rob Roy, Scott wrote of the tales of Rob Roy MacGregor and the 'children of the mist', referring to his followers of the Clan MacGregor who lived amidst the wild hills. Rob Roy was born in Glen Gyle at the western end of Loch Katrine and is buried nearby at Balquhidder. Queen Victoria visited the area on many occasions and had a holiday house built overlooking Loch Katrine.*	
The Proposed Development would not affect '*The romance of the Trossachs'* or the cultural heritage associated with the area. It would not compromise perceptions of Glen Gyle or Balquhidder,	**Negligible**: the Proposed Development would not have an effect on *'The romance of the Trossachs*'.

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
which are located outwith the ZTV (Figure 5.7c), nor would it be seen from the romantic shores of Loch Katrine.	
SLQ28: The resort of Aberfoyle and the Duke's Pass *Achray Forest extends to the south-west of Aberfoyle. The coniferous forest plantations clothe, and largely obscure, a series of parallel ridges (the Highland Boundary Fault). These forested areas form an important backcloth for a series of broadleaf wooded hillocks that are intriguing, and arrest the attention on the approach into Aberfoyle. The knolls of Doon Hill and Fairy Knowe have given rise to traditional, local fairy tales, which lends a further air of mystery and anticipation to the scene.*	
The Proposed Development would not directly physically affect Aberfoyle, the Duke's Pass or Achray Forest. It would have negligible theoretical visibility from Achray Forest, Aberfoyle and very limited theoretical visibility from the southern end of the Duke's Pass, from over 22 km away.	**Negligible**: the Proposed Development would not have a discernible effect on *'The resort of Aberfoyle and the Duke's Pass*'.
SLQ29: The gateway town of Callander *Callander is the town guarding this gateway to the Highlands. It is linear in form, with a well ordered plan and traditional built forms at its centre. Set astride the Highland Boundary Fault it benefits from a dramatic, natural setting with high ranges to the north and lower farmed landscapes extending south-eastward. The south-facing hill slopes to the north of Callander are laid out with the ornamental policies of Leny Park, forming a gradual and verdant transition from the built and managed townscape to the surrounding countryside. These areas of soft green parkland ornamented with trees, extend against a backdrop of rough moorland and distant uplands.*	
The Proposed Development would not directly affect Callander and has no visibility from the town or its vicinity.	**Negligible**: the Proposed Development would not have an effect on the *'gateway town of Callander*'.
SLQ30: The tranquil Lake of Menteith *The Lake of Menteith is a complete contrast to the long and narrow lochs of the Trossachs in their rugged Highland glens. With its gently shelving and curving shores, its wooded islands and its ruined abbey, it presents a peaceful and tranquil prospect. Surrounded by farmland and woodland, the mix of fields, trees and water epitomises the best of the lowland scene on the southern fringes of the Park. This is enhanced by the important history associated with the lake and its surrounds, whether the prehistoric Peace Stone, the Roman camp and fort on the southwestern shore, or Inchmahome Priory and its association with Mary Queen of Scots. Additional value comes from the lake's rich wildlife of birds and plants.*	

Impacts of the development on key characteristics and effects on SLQ	Risk of damage/loss to SLQ
The Proposed Development would not directly affect the Lake of Menteith in any way. There is theoretical visibility from the Lake but this is gained from over 23 km away.	**Low**: the Proposed Development would not have a notable effect on *'The tranquil Lake of Menteith*.

Step 4 Consider the Potential for Mitigation and Determine the Level of Effect

5.9.149 This assessment has indicated that of the 30 SLQs of LLTNP and Loch Lomond NSA that are relevant to this assessment, 16 would have a negligible effect as a result of the Proposed Development; 11 would have a low effect; and three would have a medium/low effect. Of these, the three SLQs with medium-low effects are of greatest relevance in the determination of the level of effect, as the negligible and low effects would not lead to a significant effect. The three relevant SLQs are:

- SLQ2: ***Wild and rugged highlands contrasting with pastoral lowlands***;
- SLQ6: ***Tranquillity***; and
- SLQ15: ***Immensity of loch and landscape***.

5.9.150 The effects on these SLQs would arise due to perception, as the Proposed Development lies outwith LLTNP and the NSA, and there would be no direct, physical effects on the physical attributes of the designated areas.

5.9.151 In the case of these three SLQs, the medium-low "*risk of damage/loss*" would result in a moderate effect when combined with the high sensitivity of LLTNP and the NSA. A moderate effect can be either significant or not significant, and the assessment of these effects is described below.

5.9.152 **SLQ2: *Wild and rugged highlands contrasting with pastoral lowlands***

5.9.153 In this instance, the effect is judged to be **significant** as while the baseline features and elements of landform, topography and landscape patterns that characterise and distinguish the various parts of LLTNP would not be directly affected, the external visibility and influence of the Proposed Development would have some effect on the perceived wildness of upland landscapes, albeit limited to those areas that gain readily apparent visibility of the turbines. The additional influence of the Proposed Development would be more apparent in the southern part of LLTNP, where there are baseline characteristics of development and settlement.

5.9.154 **SLQ6: *Tranquillity***

5.9.155 In this instance, the effect is judged to be **not significant** as while there would be an effect on the 'tranquillity' of some parts of LLTNP, this would be indirect and perceived, and would be restricted to the areas where the scale and movement of the Proposed Development are readily apparent. The features and elements within LLTNP that currently contribute to tranquillity would remain unaltered.

5.9.156 **SLQ15: *Immensity of loch and landscape***

5.9.157 In this instance, the effect is judged to be **significant** as while the majority of this SLQ would not be affected, in areas where they are clearly apparent the turbines can lead to scale comparisons that alter the baseline perception of the "*Immensity of loch and landscape*". This is a borderline effect, as it would be an indirect, perceived effect, and the landform and topography (including the loch itself) within LLTNP that currently contribute to the SLQ would not be altered.

5.9.158 The Proposed Development would therefore have a significant effect on two of the 30 relevant SLQs of LLTNP and the Loch Lomond NSA. This does not, however, imply a

significant effect on the overall 'integrity' of LLTNP or the NSA as scenic designations. The term 'integrity' is referred to in NatureScot guidance on NSAs[10], which notes the following in a checklist of potential qualities of NSAs:

"Authenticity and integrity expressed, for example, as areas of distinctiveness, sense of place, unspoilt character or historic environment."

5.9.159 In this assessment, 'integrity' refers to the degree to which perceptions such as "*distinctiveness, sense of place, unspoilt character or historic environment*" are expressed through the SLQs, across the LLTNP and NSA as a whole, reflecting the purpose of their designation. Integrity refers to the 'wholeness' of the designation.

5.9.160 'Integrity' is also referred to in NPF4 (Policy 4), which notes that:

"c) Development proposals that will affect a National Park, National Scenic Area, Site of Special Scientific Interest or a National Nature Reserve will only be supported where:

i. The objectives of designation and the overall integrity of the areas will not be compromised; or

ii. Any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance."

5.9.161 In these terms, in relation to LLTNP and the Loch Lomond NSA, it is considered that the "*objectives of designation and the overall integrity of the areas will not be compromised*" by the Proposed Development, for the reasons described below.

- The Proposed Development lies outwith LLTNP and the NSA and would have no direct effects on its physical attributes, so that all effects would be perceived. This ensures that SLQs that are dependent upon physical attributes of the NSA – of which there are a number - would not be affected by the Proposed Development.
- The nature of the NSA and the Loch Lomond area of LLTNP is an enclosed loch-based landscape, which is inherently contained, with its scenic qualities focussed on the waterbody and its surroundings that are included in the designated areas. While external influences are relevant to the characterisation of the landscape, the introverted nature of the designated areas ensures that they would retain integrity despite the addition of the external feature of the Proposed Development, which is peripheral to the key focus of the landscape. This is apparent at a number of the viewpoints that are located within LLTNP and/or the Loch Lomond NSA, including Duncryne Hill (Viewpoint 6), Ben Bowie (Viewpoint 15), Balmaha Harbour (Viewpoint 17), Conic Hill (Viewpoint 19), Waterbus (Viewpoint 20), Beinn Dubh (Viewpoint 26), and Ben Lomond (Viewpoint 29).
- As can be seen at these viewpoints, the Proposed Development would be seen in the least remarkable and eye-catching part of the setting to Loch Lomond (and outwith LLTNP and Loch Lomond NSA), where landform is seen as relatively uniform, large-scale and simple. It is this context that the Proposed Development would affect, ensuring that the dramatic scenery that surrounds the other aspects of the loch would remain unaffected.
- The ZTV indicates that theoretical visibility of the Proposed Development from LLTNP and the NSA is restricted to limited parts, with the majority of both areas,

[10] Scottish Natural Heritage Commissioned Report No. 374 'The special qualities of the National Scenic Areas' (SNH, 2010)

and especially the large area of LLTNP, having no visibility of the Proposed Development. This ensures that effects would be strongly contained and, as a result, very extensive areas of both designations would remain unaffected.

- While visibility of the Proposed Development may affect the SLQs that are reliant on the perceived qualities of LLTNP and the NSA, the assessment of effects has indicated that other than two SLQs, the effects would be not significant, for reasons described above.
- The Proposed Development would have a negligible effect on 16 SLQs, a low effect on 11 SLQs and a medium-low effect on three. In the context of the 30 relevant SLQs of LLTNP and NSA, this represents a very limited and relatively low magnitude effect. While it is recognised that the assessment of effect on SLQs is not dependent on a mathematical exercise, quantification of the effects is helpful in demonstrating the relatively small degree to which the overall SLQs may be affected.
- The two significant effects that are assessed are on SLQs that apply only to the 'Loch Lomond' area of LLTNP rather than 'general' SLQs. These effects would therefore not apply to the full extent of LLTNP but to the Loch Lomond area only.
- The highest "*risk of damage/loss to SLQ*" as assessed above is medium-low, which, when combined with a high sensitivity, can lead to an effect that is significant or not significant. In this case the medium-low level of "*risk of damage/loss to SLQ*" has been assessed to have a significant effect on two of the SLQs for the reasons described above. These are borderline significant effects which do not compromise the objectives of designation or the overall integrity of the LLTNP or the Loch Lomond NSA.

Cumulative Effect

5.9.162 As described above, there is very limited or negligible theoretical visibility of relevant operational and consented wind farms at Braes of Doune, Clachan Flats, Corlic Hill (Inverclyde), Craigengelt, Cruach Mhor, Creag Dubh, Earlsburn, Earlsburn North, Priestside Farm, and Shelloch from LLTNP. Earlsburn Extension, approximately 13 km away to the east, is the only relevant application stage wind farm.

5.9.163 As the Loch Lomond NSA lies entirely within LLTNP, these cumulative wind farms are all at an equal or greater distance away from the NSA, and with similar or reduced levels of theoretical visibility and influence. The cumulative assessment therefore focusses on effects on LLTNP, on the basis that cumulative effects on the NSA would not be any greater than effects on LLTNP.

5.9.164 Three scenarios are considered in the cumulative assessment; the addition of the Proposed Development to operational sites, the addition of the Proposed Development to operational and consented sites, and the addition of the Proposed Development to operational, consented and application stage sites.

5.9.165 In the operational scenario, the addition of the Proposed Development would result in some cumulative effect on the relevant SLQs (as assessed above) due to the greater wind farm influence that would be apparent in the setting to LLTNP. The cumulative magnitude of change would be **low** for the following reasons.

- The operational wind farms have limited theoretical visibility from and influence on LLTNP, and the cumulative effect at all of the viewpoints that lie within LLTNP is assessed to be not significant (see assessment for Viewpoint 2, Viewpoint 4, Viewpoint 5, Viewpoint 7, Viewpoint 9, Viewpoint 11, Viewpoint 12, Viewpoint 14, Viewpoint 15, Viewpoint 17, Viewpoint 19, Viewpoint 20, Viewpoint 21, Viewpoint

23, Viewpoint 24, Viewpoint 26, Viewpoint 27, Viewpoint 29, Viewpoint 31, Viewpoint 32 and Viewpoint 33).

- The location of the operational wind farms means that their influence is largely upon the Argyll Forest, Breadalbane and Trossachs landscape areas of LLTNP, whereas the most apparent influence of the Proposed Development would be on the Loch Lomond landscape area. This ensures that the landscape areas are not each affected by the influence of multiple wind farms, and the Proposed Development would not add further wind farm influence to areas that are already affected.
- The operational wind farms that lie at closer proximity to LLTNP – Braes of Doune, Clachan Flats and Cruach Mhor – all lie at a considerable distance from the Proposed Development and would not be seen concurrently at close proximity. This reduces the interaction and intervisibility between wind farms, reducing the occurrence of cumulative effects.
- The location of the Proposed Development to the south of LLTNP and operational wind farms to the south, west and east ensures that the most spectacular and dramatic landscape setting that lies to the north, north-west and north-east of LLTNP would remain unaffected by wind energy development.
- The Proposed Development itself is assessed to have a not significant effect on the integrity of LLTNP/Loch Lomond NSA, and the maximum magnitude of change on SLQs is limited to a maximum low-medium "risk of damage/loss" to the SLQs.

5.9.166 When the consented site at Creag Dubh is also taken into consideration, the cumulative magnitude of change arising from the addition of the Proposed Development would increase slightly but would not rise above a **low** level. This is because Creag Dubh lies to the west of LLTNP, between the operational wind farms at Clachan Flats and Cruach Mhor, and will not extend wind farm influence to an otherwise unaffected setting of LLTNP. There is also negligible combined theoretical visibility of Creag Dubh and the Proposed Development, with the influence of Creag Dubh being limited largely to the Argyll Forest landscape area of LLTNP, where the Proposed Development would have a very limited influence. Finally, Creag Dubh lies over 37 km away from the Proposed Development, at which distance either or both of the wind farms would always have a very limited level of influence on the landscape.

5.9.167 When the application stage site at Earlsburn Extension is also taken into consideration, the cumulative magnitude of change would remain **low** as this site would be seen in association with other sites in the Earlsburn cluster, with no additional effects.

5.9.168 The combination of these factors ensures that the cumulative effect on LLTNP and the Loch Lomond NSA would be **not significant** in any scenario, when the relevant cumulative sites are considered.

Kilpatrick Hills LLA

Baseline and Sensitivity

5.9.169 The Proposed Development lies within the WDC area of the Kilpatrick Hills LLA. This LLA is designated in three adjoining local authority areas; EDC, SC and WDC. 'Citations' that describe the characteristics and SLQs of the LLA are included in the following documents:

- Kilpatrick Hills Local Landscape Area Statement of Importance (WDC May 2015);
- Natural Environment Planning Guidance Annex E (EDC, 2018); and

- Supplementary Guidance Appendix 4 - Citations for Local Landscape Areas (SC, November 2019).

5.9.170 In its entirety, the LLA covers the landform of the Kilpatrick Hills irrespective of local authority boundaries, and effects on the LLA are therefore assessed on the basis of the single entity rather than three constituent parts. The WDC and EDC documents were produced in conjunction with one another and provide duplicates of the same SLQs.

5.9.171 The LLA extends beyond the turbines in the Proposed Development between a minimum of approximately 1.9 km (to the north) and a maximum of approximately 9.5 km (to the south-east). Viewpoints 1 (Doughnot Hill) and 6 (The Whangie) lie within the LLA.

5.9.172 There is no existing wind farm development in the LLA. There is theoretical visibility of operational wind farms that lie within 20 km of the LLA; Corlic Hill (Inverclyde), Priestside Farm, Earlsburn and Earlsburn North. Corlic Hill (Inverclyde), Priestside Farm are both theoretically intermittently visible from the southern and western parts of the receptor, seen from a minimum of 9 km away. However, the small turbines at Priestside Farm have very limited influence, and Corlic Hill (Inverclyde) also has a limited influence due to its distance (a minimum of 12 km) and the modest scale of the turbines. The highest type of visibility of these sites can be seen at Viewpoint 1, which is assessed as having a not significant cumulative effect. Earlsburn, Earlsburn North and the consented site at Shelloch also have negligible theoretical visibility, gained from over 16 km away to the east of the LLA. Wind farms that lie beyond 20 km away would not have potential to contribute to a significant cumulative effect.

5.9.173 The Kilpatrick Hills LLA has a medium-high value. It is identified as a local designation and the contrast of this hill landscape with other nearby landscapes contributes to the medium-high value, as it provides a landscape resource that differs from its surroundings, and is largely intact with a sense of place and scenic qualities. The recreational value of the Kilpatrick Hills LLA also contributes to its value, as there are numerous core paths and a short section of the John Muir Way within the LLA. Value is, however, tempered to a medium-high level by the reduced intactness in parts of the LLA, arising from the presence of elements of human development within the landscape that have detracted from its inherent attributes. The susceptibility of the receptor is medium-high. This is a distinctive, generally undeveloped, remote landscape with which the Proposed Development would contrast. However, the landscape is affected by internal and external baseline human influences, including forestry, the Auchencarroch Recycling and Resource Management Facility, and the built-up areas that lie to the south, west and south-west. The large scale and simplicity of the landform and landscape patterns also temper susceptibility.

5.9.174 The combination of a medium-high susceptibility and medium-high value of the landscape results in a **medium-high** sensitivity for the Kilpatrick Hills LLA.

Visibility of the Proposed Development from the LLA

5.9.175 The blade tip ZTV for the Proposed Development is shown in relation to the Kilpatrick Hills LLA on **Figures 5.11a** and **5.11b**. This indicates that theoretical visibility is found primarily in the north-western part of the LLA. Within this area, theoretical visibility is fairly continuous, although there are small glens and slopes (e.g. around Auchencarroch) where the ZTV shows intermittent and negligible or no visibility. To the north and west,

this type of visibility extends up to the boundary of the LLA, a maximum of approximately 2.5 km away from the nearest turbine.

5.9.176 To the south, where the LLA extends to just over 7 km away from the Proposed Development, the more consistent theoretical visibility continues up to approximately 2.5 km away from the Proposed Development, whereupon it becomes considerably more limited and intermittent due to screening by landform. The southern part of the LLA has no or negligible theoretical visibility of the Proposed Development due to landform screening and the orientation of slopes away from the Proposed Development.

5.9.177 To the east of the Proposed Development, there is a break in theoretical visibility at approximately 3 km away from the Proposed Development, where landform drops into the valley of the Carnock Burn and Burn Crook, which discharges into Burncrooks Reservoir. Theoretical visibility increases again to the east of this valley landform as the ground rises up to Stockie Muir and Achineden Hill. Beyond this, the eastern edge of the LLA gains no visibility as the landform slopes eastwards down to the A809 corridor.

Effects on the SLQs of the LLA

5.9.178 The three citation documents noted above describe the SLQs of the LLA. Those described by EDC and WDC are identical, while the SC special qualities differ from these but have many similarities. These SLQs are listed in **Table 5.10**, where the effect of the Proposed Development on each of them is described.

Table 5.10: Special Landscape Qualities of Kilpatrick Hills LLA

Special Landscape Quality	Effect of Proposed Development
EDC/WDC SLQs	
i. Strong sense of remoteness, wildness and open horizons *Although the area is partly traversed by tracks and electricity lines and bounded by roads, the Kilpatrick Hills are almost completely uninhabited. At a broad level the landform is very simple and the open moorland appears vast in extent with open horizons. However at a more detailed level there is a diversity of topographical features and upland habitats characterised by mosaics of bog, heath land and grassland, with frequent rocky outcrops, scree and crags. Fragments of broadleaf woodland also occur on the lower ground, and highlight ravines and burn corridors that provide some shelter. Coniferous plantations occur frequently and appear highly incongruous in this landscape as stark, angular, dark blocks which contrast with the muted colours, textures and sinuous patterns of the moorland vegetation.* *Pockets of enclosed grazing, stone walls, post and wire fencing and telegraph poles mark the transition from the central area of more remote hills and moorland to the lower slopes and road and urban corridor to the west and south. Infrequently scattered across the landscape are the remains of archaeological or historic features such as cairns and these add to the sense of a remote historic unchanged landscape.* *It is a simple landscape providing a rolling hill backdrop, undeveloped as a natural setting to adjacent urban areas. This contrast and proximity creates an 'accessible solitude' which is enjoyed particularly in the central areas. Here the remote hills, reservoirs and lochs provide an experience of remoteness, isolation and tranquillity in a landscape where wild and natural character dominates.*	**Medium**: the Proposed Development would affect this SLQ through the introduction of large-scale development into the Kilpatrick Hills, with a resultant effect on the remoteness and perceived wildness of the landscape. This would affect the landscape directly as well as in its role as a backdrop to surrounding areas. Visibility of the Proposed Development would also affect the 'open horizons' in views where it is clearly apparent.
ii. Distinctive landforms *Within the Kilpatrick Hills, the sweeping open moorland and coniferous plantations are contrasted with the summits such as Duncolm, Doughnut Hill and Auchineden Hill which form distinctive local landmarks. In places, the summits give way to dramatic ridges of rock and escarpments. In the south, distinctive horizontally banded lava flows, eroded into stepped cliffs, top the hill faces shelving gently downwards towards the well-defined*	**Medium-low**: the Proposed Development would not physically affect the geology or distinctive landform of the Kilpatrick Hills, with no physical effects on the notable summits, dramatic ridges, crags, or Glenarbuck. The access track into the Site

Special Landscape Quality	Effect of Proposed Development
transitional area of moorland and fields. Dramatic hill edges, long ridges, exposed rock cliffs and the gentle roll of land forming the lower slopes play an important role in the overall landscape composition. The Kilpatrick Braes, and the Lang Craigs which dominate the skyline above Dumbarton, are the most prominent examples of this feature of the Kilpatrick Hills. *Elsewhere, deep valleys and gullies such as Auchenreoch Glen and Glenarbuck have formed at the edge of the Kilpatrick Hills where the many burns run through towards the River Clyde.* *Many of these features are locally or regionally important for their geology. Together they tell a story of how the Hills formed which enhances the experience of visitors.*	would pass the top end of Auchenreoch Glen but would not affect the landform of the glen. The addition of the Proposed Development would, however, lead to an effect on the overall landscape composition that results from the juxtaposition of landforms and the perceived scale and distinctiveness of the landforms. Views towards the Lang Craigs and Kilpatrick Braes would have a limited effect due to the location of the Proposed Development to the north of these features, which ensures that in the majority of views from within the LLA, the turbines would not be seen in direct conjunction with the landform.
iii. A unique diversity of views *The Kilpatrick Hills boast unique and relatively accessible panoramic views in all directions, so that the landscape experience from these small hills is one of being part of and "viewing the whole of Scotland". For example, there is a sequence of vast panoramic views over the Clyde estuary on the short walk from Old Kilpatrick up over the Kilpatrick Braes. When at Duncolm, within the core of the Kilpatrick Hills, it is possible to see east beyond Arthur's Seat in Edinburgh (approximately 80km or 50 miles) and south to the Carsphairn hills (approx. 50 miles) and the Merrick (approx. 57 miles), in Galloway. From the same vantage point, in views to the north, Ben Lui is framed between Ben Lomond and Ben Vorlich, and Loch Lomond and its Highland setting are clearly visible.* *These panoramic views form part of a tremendous range of high quality views both to and from the Kilpatrick Hills. Well over 20 key, panoramic or iconic high quality viewpoints can be identified. These views are very diverse and range from important internal vistas of remote areas with no urbanisation visible, to extensive "borrowed views" of the adjacent nationally important highland landscape. Open horizons and*	**Medium**: the Proposed Development would affect some views from the Kilpatrick Hills, including north-westwards views from Duncolm Hill. The Proposed Development would also affect some views towards the Kilpatrick Hills, including those from Carman Reservoir, Dumbarton Castle, and parts of the inner Clyde Estuary. However, the location of the Proposed Development in the north-western part of the LLA ensures that the great majority of southwards and eastwards views would remain unaffected, as seen at Viewpoints 1 and 6, where the Proposed Development would affect only one aspect (northwards and westwards respectively) of the 360º outlook.

Special Landscape Quality	Effect of Proposed Development
borrowed views lead to the Kilpatrick Hills being experienced as part of a much larger landscape, increasing the sense of isolation and solitude. *Long views across the Glasgow conurbation emphasise the contrast between the remote upland and developed lowlands. In well-known views from outwith the Kilpatrick Hills, from locations such as Carman Reservoir and Dumbarton Castle, the Hills are a key feature seen across adjacent urban and farmed lowlands. The Hills' skyline makes an important contribution to the setting of views from the north and east of Glasgow city and the Inner Clyde estuary.*	
Stirling Council	
Accessible landscape close to settlements *The general locality of this part of the Kilpatrick Hills is readily accessible by car from northern Glasgow and the western villages of Stirlingshire. The main public access routes for outdoor recreational activities, as provided by relevant outdoor access legislation, are available from several points off the A809 Drymen Road, i.e.* *i) Track from Finnich Toll to Wester Cameron Farm, commencing opposite the junction of the B834 with the A809. It is identified as a core path.* *ii) The Queen's View Car Park, with well used paths allowing a circular walk to Auchinenden Hill and the Whangie. It is identified as a core path.* *iii) Road and track leading to the Burncrooks Reservoir. It is not identified as core path. This route meets the upland 'walkers' route option for the John Muir Way at a point just east of the Burncrooks Treatment Works, which then continues on to Balloch.* *There is a large formal car park at Queen's View. Public transport options are limited to the intermittent Glasgow- Drymen-Balfron bus service, with no Sunday operation.*	**Medium**: the Proposed Development would not affect the accessibility of the LLA and would not have physical effects on the routes that are specified in this SLQ. It would affect views from parts of the track from Finnich Toll to Wester Cameron Farm, Auchineden Hill, The Whangie (Viewpoint 6), and a short part of the track leading to Burncrooks Reservoir. There is no visibility from the Queen's View car park.
Variety of Views *From the Queens View car park, situated just past a summit point on the A809, visitors are presented with a panoramic views towards Loch Lomond and onto an extensive array of contrasting lowland and mountainous landscapes.* *Ever more wide ranging vistas emerge on the ascent of Auchineden Hill. As well as features and landscapes at intermediate distances, such as Finnich Glen, the Blane*	**Medium**: as described above in relation to EDC/WDC SLQs, the Proposed Development would affect some views from the Kilpatrick Hills, including those from Auchineden Hill (which are similar to those gained at Viewpoint 6 (The Whangie)). In the

Special Landscape Quality	Effect of Proposed Development
Valley, Campsie Fells with the distinctive summit feature of Dumgoyne, pastoral land south of Loch Lomond, the Highland Boundary Fault and the main uplands and summit points of the Kilpatrick Hills themselves, there are expansive long distance views in all directions, taking in;- *i) Loch Lomond and the surrounding hills, and over to and beyond Ben More and Stob Binnein,* *ii) the Forth Carselands and Braes of Doune and,* *iii) the Glasgow and Clydeside conurbation and the various 'braes' and 'heights' south of the Clyde Valley. As noted previously these views are accessible to a large urban population.*	outlook from Auchineden Hill, views to the southern end of the Highland Boundary Fault (at Ben Bowie) and some of the 'main uplands' of the Kilpatrick Hills would be affected. However, its location to the west of Auchineden Hill ensures that the Proposed Development would not be visible from the Queen's View car park and, on the ascent of Auchineden Hill, would not be seen in direct conjunction with Finnich Glen, the Blane Valley, the Campsie Fells/ Dumgoyne, or the pastoral land south of Loch Lomond. It would also not be seen in the direction of view of the three specific outlooks from the ascent of Auchineden Hill that are mentioned; Loch Lomond and its surrounding hills, towards and beyond Ben More and Stob Binnein; the Forth Carselands and Braes of Doune; and the Glasgow/Clydeside conurbation and various 'braes' and 'heights' south of the Clyde Valley.
Strong sense of wildness *Notwithstanding proximity to the established towns of West Dunbartonshire and north western suburbs of the Glasgow commuter belt there is, as the WDC 'Statement of Importance' says:- '....an 'accessible solitude' which is enjoyed in the central areas and around the remote hills, reservoirs and lochs. These provide an experience of remoteness, isolation and tranquillity in a landscape where wild and natural character dominates.' This is most apparent in the central western part of the LLA. Such impressions can be attributed, in part, to the simple visual appearance and perceived naturalness of moorland landscapes and a near absence of engineered infrastructure such as electricity pylons, wind turbines or operational quarries.*	**Medium**: as noted above in relation to EDC/ WDC SLQ i, the Proposed Development would affect this SLQ through the introduction of large-scale development into the Kilpatrick Hills, with a resultant effect on the remoteness and perceived wildness of the landscape. As the Proposed Development lies outwith the Stirling Council area, this SLQ would be affected through visibility of the Proposed Development rather than as a physical effect on the landscape.

Special Landscape Quality	Effect of Proposed Development
A large telecoms tower is though visible from the Queen's View car park and stands close to the path to Auchinenden Hill. The land falling northwards to Aucheneck and southwards to Edenmill/ Auchineden/ Carbeth is more settled in appearance, with houses, a cluster of huts, farm buildings, woodlands, shelters belts and pastureland.	
Distinctive geomorphology and topographical features *Aucheneck Geological Conservation Review Sites (GCR site) and Site of Special Scientific Interest* *GCR sites form the basis of statutory geological and geomorphological site conservation in Britain. These include landforms at Aucheneck that demonstrate important aspects of the geomorphology of a period of glaciation known as Loch Lomond Re-advance (11,000-10,000 yrs. before present), including one of the best examples of an end-moraine ridge, that forms a prominent feature, 5-7 m high and about 40 m wide, on the otherwise subdued relief of Cameron Muir. Part of the wider GCR site has, since 1973, been designated a Site of Special Scientific Interest, again because of the excellent representation of glacial landforms.*	**Negligible**: the Proposed Development would not affect these '*distinctive geomorphology and topographical features*' of the Kilpatrick Hills.
The Whangie *An impressive geological curiosity – a walkable crevice, about 100 m. long, 10 m. deep and 2-4 m wide, situated 250 m. north west of Auchineden Hill. It is attributed to glacial processes, and now fairly widely accepted as a translational landslide. The outer face comprises of a jointed escarpment of basaltic rocks.*	**Negligible**: the Proposed Development would not affect the '*geological curiosity*' of The Whangie.

Significance of the Effect

5.9.179 This assessment indicates that there are likely to be effects of various levels on several SLQs of the LLA. The magnitude of change on three SLQs is assessed to be medium;

- EDC/WDC SLQ '***Strong sense of remoteness, wildness and open horizons'*** and SC SLQ ***'Strong sense of wildness'***;
- EDC/WDC SLQ '***A unique diversity of views'*** and SC SLQ '***Variety of Views'***.; and
- SC SLQ '***Accessible landscape close to settlements'***

5.9.180 When combined with the medium-high sensitivity of the LLA, this would result in a major/moderate and **significant** effect on these SLQs. In relation to the first two SLQs, the influence of the Proposed Development would be more apparent in the north-western part of the LLA, where the Proposed Development is located and from where it has the highest level of visibility. In the case of views towards the LLA, as mentioned in these two SLQs, views from the area around the north-western part of the LLA would also be most affected. In the case of the third SLQ, the accessibility of the routes themselves would not be physically affected, but views from the specific routes would be affected.

5.9.181 The magnitude of change on one SLQ is assessed to be medium-low;

- EDC/WDC SLQ '***Distinctive landforms'***.

5.9.182 When combined with the medium-high sensitivity of the LLA, this would result in a moderate and significant or not significant effect on this SLQ. In this instance, the effect is judged to be **not significant** as while there would be an effect on some views towards the distinctive landforms, these landforms themselves would not be physically affected. In views from within the LLA, the Proposed Development would not generally be seen in direct relation to the Lang Craigs and Kilpatrick Braes due to its location in the north-western part of the hills.

5.9.183 Effects on the other SLQs are assessed to be negligible.

5.9.184 It is relevant to conclude as to the effect of the Proposed Development in relation to NPF 4 (Policy 4), which states:

"Development proposals that affect a site designated as a local nature conservation site or landscape area in the LDP will only be supported where:

i. Development will not have significant adverse effects on the integrity of the area or the qualities for which it has been identified; or

ii. Any significant adverse effects on the integrity of the area are clearly outweighed by social, environmental or economic benefits of at least local importance."

5.9.185 In these terms, it is considered that the Proposed Development would have "…*significant adverse effects on the integrity of the area or the qualities for which it* [the Kilpatrick Hills LLA] *has been identified*" for the following reasons.

- The Proposed Development lies within the LLA and would have physical effects on the landscape of the LLA. These physical effects would result in a significant effect on EDC/WDC SLQ i. '***Strong sense of remoteness, wildness and open horizons***' through the introduction of development into the LLA.

- Visibility of the Proposed Development would lead to significant perceived effects on EDC/WDC SLQ i. '***Strong sense of remoteness, wildness and open horizons***'/SC SLQ '***Strong sense of wildness***'; EDC/WDC iii. '***A unique diversity of views'***/SC SLQ '***Variety of Views'***; and SC SLQ '***Accessible landscape close to settlements'.***

5.9.186 It should, however, be noted that theoretical visibility of the Proposed Development from the LLA is variable, as described above, and extensive parts of the LLA, particularly its southern and eastern areas, will gain no or negligible visibility and influence of the Proposed Development. This ensures that while the Proposed Development would have "…*significant adverse effects on the integrity of the area or the qualities for which it* [the Kilpatrick Hills LLA] *has been identified*", its influence would be found primarily in the north-western part of the LLA.

Cumulative Effect

5.9.187 As described above, there is very limited or negligible theoretical visibility of the operational and consented wind farms at Priestside Farm, Corlic Hill (Inverclyde), Earlsburn, Earlsburn North and Shelloch from this receptor. There are no application stage wind farms within 20 km, and theoretical visibility of those sites that lie beyond this distance would not contribute to a significant cumulative effect. Two scenarios are therefore considered in the cumulative assessment; the addition of the Proposed Development to operational sites and the addition of the Proposed Development to operational and consented sites. In the operational scenario, the addition of the Proposed Development would have a **low** cumulative magnitude of change, restricted to this level by the limited/negligible visibility of operational wind farms, particularly bearing in mind the modest height of the turbines, and the distance of the cumulative wind farms from the receptor. When the consented wind farm at Shelloch is also taken into consideration, the cumulative magnitude of change would remain **low** due to the limited and distant influence of this wind farm and its visual association with the operational sites at Earlsburn and Earlsburn North.

5.9.188 The cumulative effect in the scenarios of operational and operational plus consented wind farms would be not significant due to a combination of the factors that lead to the low cumulative magnitude of change and the medium-high sensitivity of the receptor.

Southern Hills LLA

Baseline and Sensitivity

5.9.189 The Southern Hills LLA lies a minimum of approximately 8.7 km to the east of the Proposed Development with the closest theoretical visibility gained from approximately 8.8 km away. This LLA lies entirely within the SC area, and a 'citation' that describes the characteristics and SLQs of the LLA is included within 'Supplementary Guidance Appendix 4 - Citations for Local Landscape Areas' (SC, November 2019). Operational wind farms at Earlsburn, Earlsburn North and Craigengelt lie within this LLA, as does the consented site at Shelloch. Viewpoint 16 (Dumgoyne Hill) is within the LLA.

5.9.190 The Southern Hills LLA has a medium-high value. It is identified as a local designation and the contrast of this hill landscape with surrounding lowlands and valleys contributes to the medium-high value. It is a largely intact landscape with a sense of place and scenic

qualities, and the recreational value of the hills is also relevant, as there are numerous core paths within the LLA. Value is, however, tempered to a medium-high level by the reduced intactness in parts of the LLA, arising from the presence of wind energy development that has detracted from its inherent attributes. The susceptibility of the receptor is medium. While this is a generally undeveloped landscape, extensive wind energy development within the LLA reduces its susceptibility to the Proposed Development, as do the large scale and simplicity of the landform and landscape patterns.

5.9.191 The combination of a medium susceptibility and medium-high value of the landscape results in a **medium-high** sensitivity for the Southern Hills LLA.

Visibility of the Proposed Development from the LLA

5.9.192 The blade tip ZTV for the Proposed Development is shown in relation to the Southern Hills LLA on **Figures 5.11a** and **5.11b**. This indicates that theoretical visibility is very intermittent and is found primarily at the western end of the LLA, where landform slopes westwards towards the Proposed Development. The closest area of theoretical visibility is approximately 8.8 km away from the Proposed Development, extending intermittently up to approximately 14 km away. Other than this western area, notable theoretical visibility is limited to one area around the Fintry Hills, a minimum of approximately 18.5 km away from the Proposed Development.

5.9.193 The great majority of the LLA therefore gains no visibility of the Proposed Development.

Effects on the SLQs of the LLA

5.9.194 The citation document noted above describes the SLQs of the LLA. These are listed in **Table 5.11**, where the effect of the Proposed Development on each of them is described.

Table 5.11: Special Landscape Qualities of Southern Hills LLA

Special Landscape Quality	Effect of Proposed Development
Overall SLQs	
Diversity of landscape experience • *Contrast between large scale, simple open hill land and smaller scale, diverse, farmed, wooded and settled hill fringes – with areas such as Kippen Muir and the Carron Valley being transitional between the two.* • *Contrast between expansive views from hill summits and edges with enclosure and introspection within the valleys and parts of the hill fringes.* • *Large-scale forestry management and wind energy developments have created localised areas of marked change in landscape character and experience.*	**Negligible**: the Proposed Development would not affect this SLQ as it lies outwith the LLA and this SLQ is concerned with the landscape experience within the LLA, based on its innate landscape characteristics/internal features and their inter-relationships.
Striking views • *Panoramic outward views from the hill edges and summits and Kippen Muir.* • *Locally important and dramatic views descending into the Endrick Valley from Kippen Muir and the Campsie Fells; to and from Lewis Hill/Sauchie Craigs and passing close to the Earlsburn and Craigengelt Wind Farms.* • *Views towards the LLA are equally important - from surrounding lowland and settlements, key viewpoints in and around Stirling and the edges of the national park. The skylines and outer faces of the hills help to define Strath Blane, the Carse of Stirling and contribute to the setting of Stirling itself.*	**Low**: the Proposed Development would affect some views from the Southern Hills LLA. However, its location outwith and to the west of the LLA and the nature of the landform within the LLA ensures that theoretical visibility is largely limited to the western end of the LLA. This means that the great majority of views from within the LLA would remain unaffected. The Proposed Development would not be seen directly juxtaposed with the LLA in close-proximity views towards it from the specified locations, and the Proposed Development would not affect the way that the skyline and outer faces of the LLA '*help to define Strath Blane, the Carse of Stirling and contribute to the setting of Stirling itself*'.
'Hills' SLQs	

Special Landscape Quality	Effect of Proposed Development
• *Seemingly towering hills defining and confining adjacent lowland and conveying a strong sense of a physical barrier.* • *Precipitous west and north facing slopes appear much higher and larger than they really are because of lack of scale indicators. Distinctive and dramatic rock outcrops and corrie landforms appear unassailable.* • *Perceived scale of the hills has diminished somewhat in the east ,where large turbines at Craigengelt belie the seeming height of the hill mass.*	**Low**: the Proposed Development would not affect the way that the hills define/confine the lowlands. Craigengelt wind farm lies within the LLA, where scale comparisons are immediately apparent. Whilst some scale comparison may arise, the distance of the Proposed Development from the west-facing slopes – a minimum of approximately 9 km – would ensure that this would not be very readily apparent.
A sense of remoteness and isolation • *The core, largely uninhabited, simple, large-scale landscapes still convey a sense of remoteness - despite proximity of the whole hill mass to major settlements and the presence of wind turbines.*	**Negligible**: theoretical visibility of the Proposed Development is restricted to west-facing fringes of the LLA and it would not influence the character of the core.
'Valleys' SLQs	
Both valleys have a hidden, secluded quality, but are of contrasting scale and character. • *The Carron Valley in its scale and simplicity has more in common with the open hills than the little Endrick Valley to the north, a distinction emphasised by the changing patterns of timber harvesting and woodland cover compared with the apparent timelessness of the Middle Endrick landscape.* • *Middle Endrick Valley is a sheltered, productive and human- scale landscape in marked contrast with the surrounding bleak hills and open moorland, the presence of which help define and reinforce the special sense of place. Its hidden quality is appreciated especially when approaching from higher land.*	**Negligible**: the Proposed Development has no/negligible theoretical visibility from the two valleys and would not affect this SLQ.
'Hill Fringes' SLQs ***Transitional landscapes of varied scale and character.***	
Kippen Muir ***Sense of exposure and isolation.***	**Negligible**: while there is intermittent theoretical visibility of the Proposed Development from Kippen Muir, this is gained from a minimum of approximately

Special Landscape Quality	Effect of Proposed Development
• *Elevated position, open moorland character and panoramic views with big skies convey a sense of exposure, only marginally off-set by the shelter offered from the Fintry Hills.* • *A sense of remoteness persists, despite the relatively small extent of the muir.*	20 km away where it would not notably affect the '*Sense of exposure and isolation'*.
East Touch Fringe and Kippen/Gargunnock Fringe ***Richly patterned and diverse landscapes with a changing sense of prospect and shelter.*** • *Prosperous, well tended and human-scale landscapes with a strong historic tradition of settlement.* • *Rich diversity of tree cover, which combined with rolling landform create pockets of sheltered land with a sense of seclusion.*	**Negligible**: the Proposed Development would have no/negligible theoretical visibility from the East Touch Fringe and Kippen/ Gargunnock Fringe and would not affect this SLQ.

Significance of the Effect

5.9.195 The effect of the Proposed Development on the Southern Hills LLA would be **not significant.** While there would be some limited effects on SLQs, the magnitude of change is considered to be a maximum of low and effects would not be sufficient to result in a significant effect on the LLA. The very limited theoretical visibility of the Proposed Development from the LLA, as described above, is also an important consideration. These factors ensure that the Proposed Development would not have "…*significant adverse effects on the integrity of the area or the qualities for which it has been identified*".

Cumulative Effect

5.9.196 The limited effect of the Proposed Development on this LLA ensures that it would not contribute to a significant cumulative effect on the LLA. Moreover, the cumulative effect on the viewpoint that lies within the LLA is assessed to be not significant. The cumulative effect on the Southern Hills LLA would therefore be **not significant**.

5.10 Effects on Views

Introduction

5.10.1 Effects on views are the changes to views that result from the introduction of the Proposed Development. The assessment of effects on views includes the 33 viewpoints which represent visibility of the Proposed Development, and effects on principal visual receptors such as settlements and routes. Cumulative effects and night-time effects of visible aviation lighting are considered in the assessment. The viewpoint locations are shown in conjunction with the blade tip ZTV on **Figures 5.7a** to **5.7d** and with the hub height ZTV on **Figures 5.8a** to **5.8d**. Visualisations have been prepared to meet the requirements of NatureScot[11] and are illustrated in **Volume 2b.**

Infrastructure

5.10.2 In line with NatureScot guidance (SNH, 2017), long-term infrastructure (e.g. tracks, hardstandings and substation compound, including BESS) is photomontaged into viewpoints where "*these elements are likely to result in permanent significant impacts (for the duration of the consent), either individually and/or collectively*". This infrastructure has been shown in photomontages at Viewpoint 6 (The Whangie); Viewpoint 7 (Dumgoyne Hill), Viewpoint 8 (Dumbarton Rock, and Viewpoint 10 (Langbank). Short-term infrastructure such as construction compounds and borrow pits is not shown in the photomontages as this would be temporary and short term.

Night-time Assessment

5.10.3 The position of visible aviation lighting on each turbine is indicated on the wirelines for each viewpoint by way of a black dot shown on the turbine nacelle. NatureScot guidance[12]

[11] Visual Representation of Wind Farms Version 2.2, SNH, 2017

[12] https://www.nature.scot/doc/general-pre-application-and-scoping-advice-onshore-wind-farms#Annex+1%E2%80%8B

requires that a summary of the number of visible aviation lights that could theoretically be seen at each viewpoint is recorded. This information is as follows:

- **Viewpoint 12 (Endrick Viewpoint)**: eight aviation lights theoretically visible (T1, T2, T4, T5, T6, T7, T8, T9);
- **Viewpoint 32 (Tarbet)**: four aviation lights theoretically visible (T2, T3, T4 and T7); and
- **All other viewpoints**: ten aviation lights theoretically visible (all turbines).

5.10.4 Night-time photomontages that illustrate the theoretical visibility of 200 cd and 2,000 cd light fittings on the turbine nacelles have been included for five viewpoints; Viewpoint 2 (Minor road (John Muir Way/NCR 7) north of site); Viewpoint 14 (WHW Near Drymen); Viewpoint 17 (Balmaha Harbour); Viewpoint 22 (Balfron Cemetery) and Viewpoint 23 (Luss Campsite), as agreed with NatureScot. While the night-time assessment focusses on the effect that the Proposed Development would have on these five viewpoints, broad conclusions are also drawn as to likely night-time effects at other viewpoints and visual receptors. In accordance with NatureScot guidance, the assessment focusses on those viewpoints where there is potential for effects from lighting to be significant, and viewpoints where there is not potential for a significant night-time effect to arise have not been visited at night-time.

5.10.5 Lighting ZTVs (e.g. hub height ZTVs that show theoretical visibility of the hubs of the turbines that would be fitted with visible lights) are shown on **Figure 5.9a** (45 km radius) and **b** (20 km radius), and a lighting intensity ZTV is shown on **Figure 5.9c**. The lighting intensity ZTV shows the reduction in lighting intensity that may be achieved through mitigation (e.g. design of the light fitting) and the degree of negative vertical angle of view from the light in relation to landform (see **Technical Appendix 5.1**). The lighting intensity ZTV is based on the performance of a known light type, and the lamp used on the wind turbines would demonstrate best available technology at the time of construction.

5.10.6 The assessment of night-time visual effects is based on clear night-time conditions, and on the use of 2,000 cd and 200 cd lights, as shown in the visualisations. In reality, it is unlikely that 2,000 cd would be experienced at its full intensity as the 2000 cd lights would only be in operation when visibility is less than 5 km, and in this situation they would appear less intense due to the poor visibility around the Proposed Development. The worst-case intensity experienced at viewpoints beyond 5 km from the Proposed Development is therefore likely to be represented by the 200 cd scenario. Moreover, subject to the type and specification of the aviation light fitting that is ultimately agreed with the Determining Authority/CAA, it is possible that the intensity of light may be substantially lower, as indicated by the Lighting Intensity ZTV in **Figure 5.9c**.

5.10.7 It is also important to remember that for the majority of visual receptors, the effect arising from lighting is likely to be gained over a relatively short period. Views from within properties are likely to be restricted by the use of window coverings, particularly in winter, and properties within settlements are likely to be affected by baseline lighting of streetlights. As a result, people who experience views at night are frequently those using the road network, whose adaptation to darkness is seriously affected by dashboard and car headlights such that this group of receptors will not perceive the turbine lighting at its highest intensity. Remote rural locations, hilltops and footpaths are generally visited infrequently at night and the number of people affected would be low.

Viewpoint 1: Doughnot Hill (visualisations on Figure 5.16)

Baseline and Sensitivity

5.10.8 This viewpoint is located near the trig point on Doughnot Hill, 375m AOD. Doughhnot Hill is at the southern end of the Kilpatrick Hills and has a dramatic northwards outlook across the hills and up Loch Lomond, where the hills and mountains (including Viewpoint 29, Ben Lomond; Viewpoint 19 Conic Hill; and Viewpoint 26 Beinn Dubh) that rise to the east and west of Loch Lomond create a dramatic, channelled view up the loch. The view to the south is less scenic but also of interest, with visibility of Black Linn reservoir, Lang Craigs, and the Clyde with its built-up environs.

5.10.9 This view provides a useful northwards outlook across the Kilpatrick Hills and the Site. The foreground of the Kilpatrick Hills appears as an area of open moorland that contrasts strongly with the more settled and built-up area to the south, but appears unremarkable in relation to the dramatic scenery of Loch Lomond that is seen further to the north. Forestry blocks and tracks in the foreground reduce the perception of wildness in the hills.

5.10.10 Doughnot Hill is mentioned in the Statement of Importance[13] for the Kilpatrick Hills LLA, in relation to SLQ ii ('Distinctive Landforms'), which notes that "*Within the Kilpatrick Hills, the sweeping open moorland and coniferous plantations are contrasted with the summits such as Duncolm, Doughnut Hill and Auchineden Hill which form distinctive local landmarks".* This is not a reference to the view from the hill but does emphasise its importance within the LLA.

5.10.11 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as shown in the wireline views. The majority of these are seen from beyond the radius of their own study areas, and they therefore do not have potential to contribute to a significant cumulative effect. The majority of sites that are theoretically seen from within their study area radii are also unlikely to contribute to significant cumulative effects: the group of sites at Ardoch and Over Enoch, Calder Water, Myres Hill, Sneddons Law, West Browncastle and Whitelee and Extensions are seen from a minimum of 29.9 km away and, with partial screening by forestry, have a very limited and distant influence on the view; Millour Hill and Extension and Wardlaw Wood are theoretically visible at over 30 km away, where their influence is very limited; the Priestside Farm turbines (67 m) and the consented turbines at Braco (76 m) are not/would not be readily apparent at over 13 km and 21 km away respectively; Blantyre Muir Extension has negligible theoretical visibility; the consented site at Rigmuir has theoretically visibility of blades only at over 33 km away; and Middleton, over 24 km away, is screened by forestry. These sites are all discounted from the assessment due to their lack of or very limited influence on the view. Corlic Hill (Inverclyde) wind farm, 15.5 km away to the south-west of the viewpoint, is included in the assessment.

5.10.12 This view has a medium-high value. It is not marked on mapping as a scenic viewpoint and is not on a specific signposted path route but does lie within and overlook the Kilpatrick Hills LLA as well as overlooking LLTNP and Loch Lomond NSA. Parking is provided at Overtoun House and it is accessed part-way by a core path. It also has notable scenic qualities and a sense of place that arises in part from the contrast between

[13] Kilpatrick Hills Local Landscape Area Statement of Importance, West Dunbartonshire Council, 2015

the outlook to the north and that to the south. The susceptibility to change at this viewpoint is high as people who gain the view would be engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its medium-high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.13 The ten turbines in the Proposed Development would be seen to the north of this viewpoint from a minimum of 1.54 km away, with all hubs visible, and would extend across around 47º of the view. Infrastructure would be screened by landform, although tall cranes and other construction activity would be visible during the short-term construction phase. The magnitude of change on this view would be **high**, for the following reasons.

- The Proposed Development would be immediately apparent at close proximity in an aspect of the view that is currently unaffected by large-scale development.
- The Proposed Development would be seen in the context of the eye-catching, dramatic view towards Loch Lomond and its mountainous setting.
- The Proposed Development would introduce movement and contrasting colour and texture into the moorland and upland setting in which it is seen.

5.10.14 There are factors that mitigate the effect of the Proposed Development to some extent, although these are not sufficient to reduce the level of magnitude of change.

- The Site itself is a large-scale landform with simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The Site is separated from Loch Lomond by a break in landform and the notable change in landscape character from the Rugged Moorland Hills LCT that covers the Site to the Rolling Farmland - Loch Lomond & the Trossachs LCT that lies beyond. This break would create visual and physical separation between the Proposed Development and Loch Lomond, ensuring that the Proposed Development is associated with the foreground moorland rather than the mountainous backdrop.
- The Proposed Development would be seen in a limited part – approximately 47º - of the full panoramic view from this hilltop, ensuring that the majority of the view would remain unaffected.
- The very limited visibility of infrastructure would reduce the level of activity and number of different elements of the Proposed Development seen during the operational phase.

Significance of the Effect

5.10.15 The effect of the Proposed Development on this view would be major and **significant** due to a combination of the factors that lead to the high magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Effect

5.10.16 While there is theoretical visibility of a number of operational, under construction and consented wind farms from this viewpoint, as described above, the great majority of these are discounted from the assessment due to the lack of potential for them to contribute to significant cumulative effects. Corlic Hill (Inverclyde) wind farm, 15.5 km away to the south-west of the viewpoint is, however, included in the assessment. There is theoretical

visibility of the application stage site at Low Drumclog, but this would have a negligible effect on the view with very limited visibility gained from over 40 km away. One scenario is therefore considered in the cumulative assessment; the addition of the Proposed Development to the operational site at Corlic Hill (Inverclyde).

5.10.17 In the operational cumulative scenario, the addition of the Proposed Development to Corlic Hill (Inverclyde) would have a **low** cumulative magnitude of change due to the relatively distant visibility of the operational wind farm (15.5 km), particularly bearing in mind the modest height of the turbines and the very small proportion of the view that is occupied by them; the fact that only one operational wind farm would contribute to the cumulative effect; and the similar landscape setting of the Proposed Development and Corlic Hill (Inverclyde) within Rugged Moorland Hills LCT. The cumulative effect in the scenario of operational wind farms would be **not significant** due to the factors that lead to the low cumulative magnitude of change despite the high sensitivity of the viewpoint. No other cumulative scenarios are relevant at this viewpoint.

Night-time Effect

5.10.18 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions regarding night-time effects can be drawn from the assessment of the five viewpoints for which night-time photomontages have been produced and full assessments carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **significant** in both the 2,000 cd and 200 cd scenarios due to the proximity of turbines to the viewpoint; the visibility of all of the Proposed Development lights and their flashing appearance; and the likely dark environment around the viewpoint and backdrop against which the Proposed Development lights would be seen. The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 750 cd lights and the 200 cd lights would be perceived as 210 – 75 cd lights. The effects would remain **significant.**

5.10.19 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 2: Minor road (John Muir Way/NCR 7) north of site (visualisations on Figure 5.17)

Baseline and Sensitivity

5.10.20 This viewpoint is located on a minor road that is followed by the John Muir Way (also a core path) and NCR7 and lies within LLTNP, some 800 m to the north of the Park's southern boundary. The boundary between LLTNP and the Kilpatrick Hills LLA can be seen in the view towards the Proposed Development, marked by the minor road (Auchincarroch Road) that runs east-west across the hillside beyond the farm seen in the middle-ground of the view. Several groups of houses can be seen along this boundary. Auchincarroch Road also marks the boundary between the Rolling Farmland - Loch Lomond & the Trossachs LCT, within which the viewpoint lies, and the Rugged Moorland Hills LCT that covers the Kilpatrick Hills. The view to the north, into LLTNP, from this

location is foreshortened by landform and tree belts, ensuring that little of the dramatic, mountainous LLTNP skyline is visible.

5.10.21 This view provides a useful outlook towards the Kilpatrick Hills from the north. The hills are seen as a simple and quite uniform skyline – other than the landform of Auchincarroch Hill – that is distinguished from lower ground by its unenclosed upland moorland ground cover, which contrasts with the enclosed pastoral fields of the Rolling Farmland LCT.

5.10.22 There is theoretical visibility of several baseline wind farms from this viewpoint. The closest are Priestside Farm and Corlic Hill (Inverclyde), 15.1 km and 16.5 km away respectively, both of which are screened by hedgerows and more distant woodland. All other sites are shown have negligible or very limited theoretical visibility and would be screened by vegetation. Baseline wind farms are discounted from the assessment.

5.10.23 This view has a medium-high value. It is not marked on mapping as a scenic viewpoint, facilities such as parking are not provided for the enjoyment of the view, and the view is attractive but not notably scenic or dramatic. It does, however, lie within LLTNP and overlooks LLTNP and the Kilpatrick Hills LLA, and is on the John Muir Way and NCR 7. The susceptibility to change at this viewpoint is high as people who gain the view may be local residents, who have an inherent high susceptibility, as well as walkers or cyclists using the signposted recreational routes. The combination of the high susceptibility of the view and its medium-high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.24 The ten turbines in the Proposed Development would be seen to the south of this viewpoint from a minimum of 2.9 km away, with all hubs visible, and would extend across around 30º of the view. The turbine bases would be screened by landform as would the infrastructure, although tall cranes and other construction activity would be visible during the short-term construction phase. The magnitude of change on this view would be **high**, for the following reasons.

- The Proposed Development would be immediately apparent at close proximity in an aspect of the view that is unaffected by large-scale human development.
- The appearance of turbines seen at nearly full height on the elevated skyline would increase their vertical impact.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.

5.10.25 There are factors that mitigate the effect of the Proposed Development to some extent, although these are not sufficient to reduce the level of magnitude of change.

- The Kilpatrick Hills form a large-scale skyline with simple, unenclosed landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The location of turbine bases behind the skyline would ensure that the Proposed Development would be clearly associated with the upland Rugged Moorland Hills LCT without encroaching down into the more complex and settled Rolling Farmland - Loch Lomond & the Trossachs LCT, within which the viewpoint lies.
- The Proposed Development would be seen in a limited part – approximately 30º - of the view, ensuring that the majority of the outlook would remain unaffected.
- The containment of the Proposed Development on a single, uniform skyline landform is beneficial as it creates a cohesive grouping of turbines.

Significance of the Effect

5.10.26 The effect of the Proposed Development on this view would be major and **significant**. This is due to a combination of the factors that lead to the high magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Effect

5.10.27 While there is theoretical visibility of operational, under construction and consented wind farms, as described above, these are discounted from the assessment due to lack of or very limited theoretical visibility and further screening by vegetation. There is theoretical visibility of the application stage site at Earlsburn Extension, but this has negligible theoretical visibility from over 27 km away and would also be screened by woodland. There are therefore no relevant cumulative wind farm sites and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.28 The sensitivity of this viewpoint remains **high** at night-time due to the residential nature of some viewers.

5.10.29 The baseline night-time view is characterised by sporadic security/domestic lighting at houses and farms with white or yellow lights. Orange skyglow arising from the urban area of Vale of Leven is also apparent towards the western side of the view. There is no lighting in the immediate vicinity of the viewpoint. Lighting on ten turbines would be visible from a minimum of 2.9 km away at this viewpoint and would introduce a new influence of red lights into the night-time view. The position of the lights on the elevated skyline would increase their effect on the view, as would the flashing appearance that would be likely to arise. The magnitude of change arising from the lighting is moderated by the containment of the lighting within approximately 30º of the view; the distance of the lights from the viewpoint (just under 3 km); and the presence of some baseline lighting in the view, albeit of a different type and colour, so that the turbine lights would not introduce lighting into a completely dark environment.

5.10.30 In the worst-case scenario of 2,000 cd, the night-time magnitude of change on this view would be **medium-high**, while in the scenario of 200 cd, the magnitude of change would reduce to a **medium** level due to the reduced light source.

5.10.31 Allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as less than 13 cd lights and the 200 cd lights would be perceived as less than 1.3 cd lights (see **Figure 5.7c**). Should this mitigation be achieved, the magnitude of change arising from the 200 cd light would reduce to a **negligible** level while the magnitude of change arising from the 2,000 cd light would reduce to a **low** level.

5.10.32 The night-time effect of turbine lighting on this viewpoint would be major and **significant** in the 2,000 cd and 200 cd scenarios due to the factors considered in the high sensitivity of the viewpoint and the high or medium-high night-time magnitude of change. However, if mitigation relating to changes in light intensity due to vertical elevation angle from the turbine light is achieved, the effect in both scenarios would be **not significant**.

5.10.33 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 3: A82 near Bellsmyre Roundabout (A813 junction) (visualisations on Figure 5.18)

Baseline and Sensitivity

5.10.34 This viewpoint is located beside the A82 on the north-western edge of Dumbarton and is included to represent views gained by nearby residents, workers, and people travelling on the A82 (primarily southbound travellers although northbound travellers may gain an oblique view). The viewpoint is not within LLTNP, but the A82 is a key route for people entering and leaving the Park and this outlook is likely to be gained by some tourists. In the foreground of the view is the partially screened Aggreko factory, and housing in Bellsmyre can be seen further to the right, including some elevated flats. A high voltage transmission line can be seen crossing the middle-ground of the view. To the right of the Proposed Development is the distinctive landform of the Lang Craigs.

5.10.35 There is theoretical visibility of several baseline wind farms from this viewpoint, including the group at Whitelee, over 30 km away. The closest are Priestside Farm and Corlic Hill (Inverclyde), 8.5 km and 10.6 km away respectively, both of which have negligible theoretical visibility. All of these cumulative sites are screened by dense woodland, and are discounted from the assessment.

5.10.36 This view has a medium value. It is not marked on mapping as a scenic viewpoint, facilities such as parking are not provided for the enjoyment of the view, the view is not notably scenic or dramatic, and it does not lie within a scenic designation, although part of the outlook is towards the Kilpatrick Hills LLA (including, most notably, the Lang Craigs). The susceptibility to change at this viewpoint is high as it is included to represent views gained by local residents in Dumbarton, who have an inherent high susceptibility, as well as road-users. The sensitivity of the view is **high** due to the residential nature of some viewers.

Magnitude of Change

5.10.37 The ten turbines in the Proposed Development would theoretically be seen to the north-east of this viewpoint from a minimum of 3.8 km away, with all hubs theoretically visible, and would extend across around 25º of the view. The turbine bases would be screened by landform and vegetation and one turbine is largely screened by foreground trees, with just blades visible. This urban edge is characterised by woodland and the majority of nearby views, including views from properties, are likely to have some degree of screening by vegetation. The majority of infrastructure would be screened by landform although tall cranes and other construction activity would be visible during the construction phase, and the edge of a borrow pit may be seen between T7 and T9. A construction compound and short stretches of access tracks are theoretically visible but would be screened by woodland. The magnitude of change on this view would be **medium-high**, for the following reasons.

- The Proposed Development would be very readily apparent at reasonably close proximity with some turbines seen at nearly full height on the skyline, increasing their vertical impact.
- The Proposed Development would introduce movement and contrasting colour and texture into the setting in which it is seen.
- In this view, the Proposed Development would not be seen in the context of the elevated and distinctively upland landscape of the Kilpatrick Hills, but appears at a lower elevation, with the hill landform screened by intervening woodland. This results in a perceived lack of separation, whereby the turbines appear to be seen in the same LCT as the viewpoint and can lead to perceived encroachment.

5.10.38 The factors that restrict the magnitude of change to a **medium-high** level are as follows.

- The turbines would be enclosed in a dip in landform, reducing their perceived scale.
- The Proposed Development would not affect views towards the landform feature of Lang Craigs.
- Urban development, including most notably the dual-carriageway road and the Aggreko factory, ensures that the outlook has baseline elements of large-scale development, and this prevents the Proposed Development from providing a completely new or contrasting influence in the view.
- The Proposed Development would affect a relatively small part of the view - approximately 25º - and would not extend across the full open part of the outlook.

Significance of the Effect

5.10.39 The effect of the Proposed Development on this view would be major and **significant**. This is due to a combination of the factors that lead to the medium-high magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.40 While there is theoretical visibility of several operational, under construction and consented wind farms from this viewpoint, as described above, these are discounted from the assessment due to lack of or very limited theoretical visibility and further screening by vegetation. There is theoretical visibility of the application stage site at Low Drumclog, but this has negligible theoretical visibility from over 40 km away and would be screened by woodland. There are therefore no relevant cumulative wind farms and the cumulative effect arising from the addition of the Proposed Development would be **not significant.**

Night-time Effect

5.10.41 A full assessment of night-time effects has not been carried out for this viewpoint as while it has been visited at night-time, night-time photomontages have not been produced. However, overall conclusions regarding night-time effects can be drawn from the site visit and the assessment of the five viewpoints for which night-time photomontages have been produced and full assessments carried out.

5.10.42 The site visit indicated that there is extensive baseline lighting in this view, including lighting of the industrial estate (most notably at the Aggreko factory); street and residential lighting, which extends up to the skyline at Bellsmyre; and the moving lights of cars on the A82.

5.10.43 For road-users, the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios due to the baseline lighting in the view, particularly moving lights of vehicles on the road, and the moving nature of viewers. For residential viewers, it is likely that the night-time effect would be **significant** in both the 2,000 cd and 200 cd scenarios as a result of the proximity of turbines to the viewpoint; the visibility of nine of the Proposed Development lights (with the tenth light (on T10) possibly appearing with filtered visibility through trees); the elevation of the lights above the skyline, the red colour of the lights; and their flashing appearance. The effect would, however, be tempered by the baseline lighting seen along the road and in the view towards the Proposed Development, which reduces the contrast of the Proposed Development lighting with the baseline view.

5.10.44 Allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as less than 13 cd lights and the 200 cd lights would be perceived as less than 1.3 cd lights (See **Figure 5.7c**). Should this mitigation be achieved, the effects would be **not significant** for all viewers.

5.10.45 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 4: Balloch Castle Country Park access road (visualisations on Figure 5.19)

Baseline and Sensitivity

5.10.46 This viewpoint is located on the access road into Balloch Castle Country Park/GDL. The strong westwards orientation of landform and extensive woodland cover within the main part of the Park greatly limits visibility of the Proposed Development, and this viewpoint on the access road has been included instead as it will be gained by a number of visitors. The road is lined by a hedge and the level of visibility of the Proposed Development would be determined to some degree by the height of the hedge, which is likely to vary.

5.10.47 This road is followed by the John Muir Way (also a core path) and NCR7, and the viewpoint lies within LLTNP. The Kilpatrick Hills LLA can be seen to the south-east. The outlook to the north, towards Loch Lomond, is enclosed by woodland and trees, and the full view, while attractive, is not dramatic or highly scenic. The Kilpatrick Hills are seen in the most open part of the outlook. In the foreground is the settlement of Balloch, with views of houses filtered by trees.

5.10.48 There is theoretical visibility of the operational Neilston and consented Braco wind farms from this viewpoint. Visibility of these sites is very limited, gained from over 25 km away with woodland screening, and baseline wind farms are discounted from the assessment.

5.10.49 This view has a medium-high value. It is not marked on mapping as a scenic viewpoint, facilities such as parking are not provided for the enjoyment of the view, and the view is attractive but not notably scenic or dramatic. As noted above, it does lie within LLTNP and Balloch Castle Country Park/GDL, overlooks the Kilpatrick Hills LLA, and is on the John Muir Way and NCR 7. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers or cyclists who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. The

combination of the high susceptibility to change of the view and its medium-high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.50 The ten turbines in the Proposed Development would be seen to the south-east of this viewpoint from a minimum of 4.3 km away, with all hubs visible, and would extend across around 21º of the view. The turbine bases would be screened by landform, as would infrastructure, although tall cranes and other activity would be visible during construction. The magnitude of change on this view would be **medium-high**, for the following reasons.

- The Proposed Development would be apparent at close proximity in an aspect of the view that is currently unaffected by large-scale development.
- The appearance of some turbines seen at nearly full height on the elevated skyline would increase their vertical impact.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland and forestry setting in which it is seen.
- The Proposed Development would affect a part of the open aspect of the view, as woodland surrounds other aspects, and this can draw the eye of the viewer.

5.10.51 The factors that restrict the magnitude of change to a medium-high level are as follows.

- The Kilpatrick Hills form a large-scale skyline with simple, unenclosed landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The location of turbine bases behind the skyline ensures that the Proposed Development would be clearly associated with the upland Rugged Moorland Hills LCT, without encroaching down into the more complex and settled Lowland Loch Basin, within which the viewpoint lies, and Rolling Farmland LCT, which covers the middle-ground of the view.
- The Proposed Development would affect a relatively small part of the view - approximately 21º - and would not extend across the full open part of the outlook.
- Housing in the middle-ground of the view ensures that the outlook has baseline elements of human development, and this prevents the Proposed Development from providing a completely new or contrasting influence.
- This view is gained primarily by moving viewers (walking, cycling or in cars) and visibility of the Proposed Development would be relatively brief and glimpsed. There are benches along the road but people using these are unlikely to gain clear and open views of the Proposed Development due to vegetation screening.

Significance of the Effect

5.10.52 The effect of the Proposed Development on this view would be major and **significant** due to a combination of the factors that lead to the medium-high magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.53 While there is some theoretical visibility of the baseline Neilston and Braco wind farms from this viewpoint, as described above, this is discounted from the assessment due to lack of visibility. There is no theoretical visibility of any application stage sites. There are therefore no relevant cumulative wind farms and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.54 A full assessment of night-time effects has not been carried out for this viewpoint as while it has been visited at night-time, night-time photomontages have not been produced. However, overall conclusions regarding night-time effects can be drawn from the site visit and the assessment of the five viewpoints for which night-time photomontages have been produced and full assessments carried out.

5.10.55 The site visit indicated that while the immediate vicinity of this viewpoint is unlit, there is extensive baseline visibility of domestic and street lighting in Balloch, largely of white and yellow lamps although moving lights on cars are also visible, including red tail lights. Further away, there is lighting in urban and industrial areas to the south of the Clyde, and orange skyglow is also seen across the view.

5.10.56 It is likely that the night-time effect at this viewpoint would be **significant** in both the 2,000 cd and 200 cd scenarios as a result of the visibility of all of the Proposed Development lights; the red colour of the lights, which would contrast with the majority of the lights that are seen in the baseline view; and the flashing appearance of the lights. The effect would, however, be tempered by the presence of baseline lighting seen in the view, including moving red lights on cars; the moving nature of the viewer; and the angled nature of views from the road. This viewpoint is unlikely to be well-frequented during hours of darkness as while it is accessible 24 hours a day, bye-laws do not allow for camping within the Country Park.

5.10.57 Allowing for potential changes in light intensity due to the vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 32 - 13 cd lights and the 200 cd lights would be perceived as 3.2 - 1.3 cd lights (See **Figure 5.7c**). Should this mitigation be achieved, the effects would become **not significant**.

5.10.58 A cumulative night-time assessment is not required due to lack of visibility of relevant wind farms. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 5: A811 Near Balloch (visualisations on Figure 5.20)

Baseline and Sensitivity

5.10.59 This viewpoint is located on the A811 at its roundabout junction with the B857, which passes through Alexandria. This part of the A811 forms the southern boundary of LLTNP and the viewpoint is included to represent the outlook gained by local residents of Alexandria and Balloch as well as road-users. Despite its location within LLTNP, this is an urban view that displays housing of various types as well as commercial development. There are no views towards the natural scenery of Loch Lomond. The Kilpatrick Hills LLA is seen rising above foreground housing, and this forms the most open part of the view.

5.10.60 There is negligible theoretical visibility of the operational Neilston and Middleton wind farms from this viewpoint. At just under 30 km away and with further screening by woodland and houses, these wind farms are discounted from the assessment.

5.10.61 This view has a medium value. It is not marked on mapping as a scenic viewpoint, facilities such as parking are not provided for the enjoyment of the view, and the view is not notably scenic or dramatic. The viewpoint lies within LLTNP but this is not apparent in the outlook. The view does overlook the Kilpatrick Hills LLA, which forms the backdrop

to foreground housing. The susceptibility to change at this viewpoint is high as it is included to represent views gained by local residents, who have an inherent high susceptibility, as well as road-users. The sensitivity of the view is **high** due to the residential nature of some viewers.

Magnitude of Change

5.10.62 The ten turbines in the Proposed Development would be seen to the south-east of this viewpoint from a minimum of 4.3 km away, with all hubs theoretically visible, and would extend across around 22º of the view. The turbine bases would be screened by landform as would infrastructure although tall cranes and other activity would be visible during the construction phase. This urban area is characterised by trees and woodland, and the majority of nearby views, including views from properties, are likely to have some degree of screening or filtering by vegetation as shown in the photomontage, where three turbines are largely screened by woodland. The magnitude of change on this view would be **medium-high**, for the following reasons.

- The Proposed Development would be very readily apparent at reasonably close proximity with some turbines seen at nearly full height on the skyline.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland setting in which it is seen. The Kilpatrick Hills currently provide an undeveloped backdrop to the largely urban outlook, and the Proposed Development would introduce large-scale development into this backdrop.
- The Proposed Development would affect a part of the only open aspect of the view, as other aspects are generally screened and filtered by buildings and vegetation, and this can draw the eye of the viewer.
- The turbines would be seen in the context of foreground residential development, with which scale contrasts may arise.

5.10.63 The factors that restrict the magnitude of change to a medium-high level are as follows.

- Screening/filtering of turbines by woodland would reduce the overall impact arising from the Proposed Development and reduce the affected horizontal field of view.
- The Kilpatrick Hills form a large-scale skyline with simple, unenclosed landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- Urban development, including the road network, lighting columns and housing, ensures that the outlook has a developed character, and this would prevent the Proposed Development from providing a completely new influence in the view.
- The Proposed Development would affect a relatively small part of the view - approximately 22º - and would not extend across the full open part of the outlook.
- Foreground elements such trees, signage and lighting columns provide scale comparators that reduce the perceived scale of the turbines. The vertical lighting columns also reduce the vertical impact of the turbines.
- The location of turbine bases behind the skyline would ensure that the Proposed Development would be clearly associated with the upland Rugged Moorland Hills LCT that covers the Kilpatrick Hills, without encroaching down into the urban area within which the viewpoint lies.

Significance of the Effect

5.10.64 The effect of the Proposed Development on this view would major and be **significant** due to a combination of the factors that lead to the medium-high magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.65 While there is theoretical visibility of the baseline Neilston and Middleton wind farms from this viewpoint, as described above, this is discounted from the assessment due to lack of actual visibility. There is no theoretical visibility of any application stage sites. There are therefore no relevant cumulative wind farms and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.66 A full assessment of night-time effects has not been carried out for this viewpoint as while it has been visited at night-time, night-time photomontages have not been produced. However, overall conclusions regarding night-time effects can be drawn from the site visit and the assessment of the five viewpoints for which night-time photomontages have been produced and full assessments carried out.

5.10.67 The site visit indicated that there is extensive visibility of baseline street lighting on the road and in the residential areas that are seen in the view as well as moving lights of cars on the road, including red tail lights. Lighting within properties is also apparent.

5.10.68 For road-users, the night-time effect at this viewpoint would be not significant in both the 2,000 cd and 200 cd scenarios due to the baseline lighting in the view and the moving nature of viewers. For residential viewers, it is likely that the night-time effect at this viewpoint would be **significant** in the 2,000 cd scenario as a result of the proximity of turbines to the viewpoint; the visibility of seven of the Proposed Development lights (with the three remaining lights on T8, T9 and T10 possibly appearing with filtered visibility through trees); the elevation of the lights above the skyline and their varied levels; the red colour of the lights,; and their flashing appearance. The effect would, however, be moderated by the considerable baseline street and vehicle lighting along the road and in the residential areas. The effect arising in the 200 cd scenario is likely to be **not significant** for residential viewers due to the reduced light source in the context of the considerable baseline level of lighting seen in the view.

5.10.69 Allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 32 - 13 cd lights and the 200 cd lights would be perceived as 3.2 - 1.3 cd lights (See **Figure 5.7c**). Should this mitigation be achieved, the effects of both 200 cd and 2,000 cd would be **not significant** for all viewers.

5.10.70 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 6: The Whangie (visualisations on Figure 5.21)

Baseline and Sensitivity

5.10.71 This viewpoint is located on high ground between the Whangie and Auchineden Hill in the eastern part of the Kilpatrick Hills, and gains a spectacular open outlook across Loch Lomond to the north and north-west. A number of LVIA viewpoint locations within LLTNP are visible, including Viewpoint 7 (Duncryne Hill), Viewpoint 29 (Ben Lomond), Viewpoint 19 (Conic Hill), and Viewpoint 26 (Beinn Dubh), and the loch and its islands are also visible. The Kilpatrick Hills extend around the south, west and east of the viewpoint, and the landscape setting of the viewpoint is predominantly upland, with the viewpoint lying within Lowland Hill Fringes – Central LCT and overlooking the Rugged Moorland Hills LCT, which lies to the south and west (including the Site). The John Muir Way passes between this viewpoint and the Site, with the route discernible as it passes around the western end of Burncrooks Reservoir, south-west of the viewpoint. Further away to the north and north-west are the lowland LCTs that surround the southern end of LLTNP, including Rolling Farmland - Loch Lomond & the Trossachs LCT and Lowland Loch Basin - Loch Lomond & the Trossachs LCT.

5.10.72 This view provides a useful outlook across the Kilpatrick Hills from the east. The hills form an upland area of open moorland/forestry that has a sense of remoteness but appears unremarkable in relation to the dramatic scenery of Loch Lomond that is seen further to the north. Forestry blocks, tracks and the evidence of recent felling operations in the foreground reduce the perception of remoteness and tranquillity.

5.10.73 Stirling Council Supplementary Guidance (2019)[14] makes several references to the Whangie in its citation for the Stirling Council part of the Kilpatrick Hills LLA, with The Whangie itself being one of the SLQs of the LLA. The Whangie is also mentioned in the WDC Statement of Importance[15] for the Kilpatrick Hills, which notes that "*Auchineden Hill and the Whangie, which together form one of the best known viewpoints and places of interest within the Kilpatrick Hills, fall within this area".*

5.10.74 There is theoretical visibility of several baseline wind farms from this viewpoint. The closest is Corlic Hill (Inverclyde), just over 20 km away, but this has negligible visibility and is not discernible in the view. Some sites in the group at Whitelee have limited theoretical visibility from over 30 km away, and Middleton, Neilston and Braco have limited theoretical visibility from over 25 km away. The limited theoretical visibility and distance from the viewpoint of these sites combined with screening by intervening forestry ensures that they do not influence the view. Braes of Doune has theoretical visibility but is seen from outwith its own study area and is not relevant. Baseline wind farms are therefore discounted from the assessment.

5.10.75 This view has a high value. The combination of The Whangie/Auchineden Hill is a well-known viewpoint, and popular tourist attraction, accessed by a core path, and with parking provided. The viewpoint lies within and overlooks the Kilpatrick Hills LLA as well as overlooking LLTNP and Loch Lomond NSA. The view has notable scenic qualities and a sense of place. The susceptibility to change at this viewpoint is high as people who gain

[14] Stirling Council Supplementary Guidance November 2019 Appendix 4 - Citations For Local Landscape Areas

[15] Kilpatrick Hills Local Landscape Area Statement of Importance, West Dunbartonshire Council, 2015

the view would be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.76 The ten turbines in the Proposed Development would be seen to the west of this viewpoint from a minimum of 4.8 km away, with all hubs visible, and would extend across around 22º of the view. The majority of infrastructure would be screened by landform other than several stretches of access tracks/hardstandings. Tall cranes and other construction activity would be visible during the construction phase. The magnitude of change on this view would be **medium-high**, for the following reasons.

- The Proposed Development would be very readily apparent at relatively close proximity in an aspect of the view that is currently unaffected by large-scale human development.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- In this view, the Proposed Development would be seen in a similar landscape setting to that of the viewpoint, with the upland LCTs merging together. This results in a perceived lack of separation, whereby the turbines appear to be seen in the same LCT as the viewpoint.
- The turbines would be seen partly against landform and partly against sky, which can be eye-catching.

5.10.77 The factors that restrict the magnitude of change to a **medium-high** level are as follows.

- The Site is a large-scale landform with very simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The lower elevation of the Proposed Development in relation to the viewpoint reduces the perceived prominence of the turbines as they are not seen on an elevated skyline that rises above the viewpoint.
- The Proposed Development would not be seen in relation to the highly scenic, dramatic Loch Lomond landscape, but in a less remarkable aspect of the view, and would not be seen in the context of LLTNP or the Loch Lomond NSA.
- Forestry, tracks and recent felling operations mean that the outlook has baseline elements of development and human influence, ensuring that the context landscape setting lacks the undeveloped context with which the Proposed Development would have the greatest contrast.
- The Proposed Development would be seen in a limited part – approximately 22º - of the full panoramic view from this hilltop, ensuring that the majority of the view, including its most scenic parts, would remain unaffected. The turbines have been designed to form a cohesive, compact group in this view.

Significance of the Effect

5.10.78 The effect of the Proposed Development on this view would be major and **significant**. This is due to a combination of the factors that lead to the medium-high magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.79 While there is some theoretical visibility of baseline wind farms from this viewpoint, as described above, this is discounted from the assessment due to very limited actual visibility. There is negligible theoretical visibility of the application stage site at Earlsburn Extension from over 26 km, where it would not be discernible. There are therefore no relevant cumulative wind farms and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.80 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the assessment of the viewpoints for which night-time photomontages have been undertaken and full assessments carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **significant** in both the 2,000 cd and 200 cd scenarios as a result of the proximity of turbines to the viewpoint; the visibility of all of the Proposed Development lights and their flashing appearance; the likely dark environment around the viewpoint and the likely dark backdrop against which the Proposed Development lights would be seen.

5.10.81 The effect would, however, be moderated by the very limited part of the view that would be affected by the lighting, with extensive undeveloped, dark aspects remaining to the north and north-west where the dramatic skyline would be discernible at dawn/dusk.

5.10.82 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 750 cd lights and the 200 cd lights would be perceived as 210 – 75 cd lights. The effects would remain **significant.**

5.10.83 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 7: Duncryne Hill (visualisations on Figure 5.22)

Baseline and Sensitivity

5.10.84 This viewpoint is located near the trig point on Duncryne Hill, 142 m AOD, approximately 600 m south-east of Gartocharn. Duncryne Hill has a spectacular outlook northwards up Loch Lomond, where hills and mountains (including Viewpoint 29, Ben Lomond; Viewpoint 19 Conic Hill; and Viewpoint 26 Beinn Dubh) that rise to both the east and west of Loch Lomond create a dramatic, channelled view up the loch. This viewpoint has been specifically located to gain a clear, open view towards the Proposed Development, without vegetation screening, resulting in filtering of northwards views by trees. Open views to the north are available from nearby locations. The view to the south and south-east, towards the Kilpatrick Hills and other lowland hill ranges, is scenic but less remarkable. The Auchencarroch Recycling and Resource Management Facility is visible on the northern edge of the Kilpatrick Hills.

5.10.85 The 'Special Landscape Qualities of the Loch Lomond and The Trossachs National Park' includes analysis of a number of viewpoints, including Duncryne Hill, that were used in

site work for the formulation of the SLQs. The 'Visual' description for this viewpoint includes the following summary of the variety of landscapes seen in the view:

"This is a truly vast panorama giving a classic 'view' of the Highland/Lowland landscape and the Highland Boundary Zone cutting across, forming the division between the two…

The Highland mountains have distinctive, individual profiles compared to the Lowland hills, where it is the ranges that are distinctive, as opposed to the individual summits within them. The further northwards into the panorama that you look, so elements in the view get steeper, with more angular lines, craggier summits and ridges. South of the loch farmed slopes and a patchwork of lines and textures, and more intricate details predominate.

In the scene the distant Highlands and northern shores are muted – with a constantly changing pattern of cloud and light. The great sweeping slopes and angles of this mountainscape, is punctuated by the long linear island chain across the loch's horizontal surface. To the south the panorama is less distinctive, made up of long horizontal slopes and blocks of backlit hills."

5.10.86 In relation to this description, the Proposed Development lies within the "*less distinctive*" southern, lowland landscape, in the context of the "*long horizontal slopes and blocks of backlit hills*". The "*farmed slopes and a patchwork of lines and textures, and more intricate details*" that "*predominate*" to the south of the loch are seen around the fringes of the Kilpatrick Hills, but do not extend up onto the hills themselves, which are covered by the contrasting elevated, open and exposed landscape of Rugged Moorland Hills LCT.

5.10.87 There is theoretical visibility of several baseline wind farms from this viewpoint. The closest, Priestside Farm, is just over 17 km away and screened by woodland. There is very limited theoretical visibility of Earlsburn and Shelloch but at over 22 km away, this is not/would not be discernible in the view. Braes of Doune has theoretical visibility but is seen from outwith its own study area and is not relevant. Baseline wind farms are therefore discounted from the assessment.

5.10.88 This view has a high value. It is a well-known, clearly signposted walking destination that lies within LLTNP and overlooks LLTNP and the Loch Lomond NSA to the north and Kilpatrick Hills LLA to the south. Parking is provided and the viewpoint is accessed by a well-marked core path. It also has notable scenic qualities and a strong sense of place. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers who are engaging in outdoor recreation on the core path and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.89 The ten turbines in the Proposed Development would be seen to the south of this viewpoint from a minimum of 5.2 km away, with all hubs visible, and would extend across around 19º of the view. The majority of infrastructure would be screened by landform, other than several stretches of access tracks/hardstandings. Tall cranes and other activity would be visible during the construction phase. The magnitude of change on this view would be **medium-high**, for the following reasons.

- The Proposed Development would be very readily apparent at relatively close proximity in an aspect of the skyline that is currently unaffected by large-scale development.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The appearance of turbines seen at nearly full height on the horizontal skyline would increase their vertical impact.

5.10.90 The factors that restrict the magnitude of change to a medium-high level are as follows.

- The Site is a large-scale landform with very simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The Proposed Development would not be seen in relation to the highly scenic and dramatic Loch Lomond landscape that lies to the north, but in the less remarkable and simpler southern aspect of the view (as acknowledged in 'Special Landscape Qualities of the Loch Lomond and The Trossachs National Park'). The Proposed Development would not be seen in the context of LLTNP or the Loch Lomond NSA.
- The Site is separated from the viewpoint by the notable change in landscape character between the Rolling Farmland - Loch Lomond & the Trossachs LCT within which the viewpoint lies, and the Rugged Moorland Hills LCT within which the Site lies. This break would create visual and physical separation between the Proposed Development and the viewpoint, preventing encroachment and ensuring that the Proposed Development is associated with the upland moorland rather than the Rolling Farmland LCT that provides the setting to Loch Lomond in this view.
- The presence of forestry and the Auchencarroch Recycling and Resource Management Facility in the view reduces the perception of remoteness and naturalness of the Kilpatrick Hills.
- The Proposed Development would be seen in a limited part – approximately 19º - of the full panoramic view from Duncryne Hill, ensuring that the great majority of the view, including its most scenic parts, would remain unaffected. The turbines have been designed to form a cohesive, compact group in this view.

Significance of the Effect

5.10.91 The effect of the Proposed Development on this view would be major and **significant** due to a combination of the factors that lead to the medium-high magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.92 While there is some theoretical visibility of baseline wind farms from this viewpoint, as described above, this is discounted due to very limited actual visibility. There is no theoretical visibility of any application stage sites. There are therefore no relevant cumulative wind farms and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.93 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the assessment of the viewpoints for which night-time photomontages have been undertaken and full assessments carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **significant**

in both the 2,000 cd and 200 cd scenarios as a result of the proximity of turbines to the viewpoint; the visibility of all of the Proposed Development lights and their flashing appearance; the likely dark environment around the viewpoint and the likely dark backdrop against which the Proposed Development lights would be seen.

5.10.94 The effect would, however, be moderated by the very limited part of the view that would be affected by the lighting, with extensive undeveloped, dark aspects remaining to the north and west where the dramatic skyline of LLTNP would be discernible at dawn/dusk. The distance of the lights from the viewpoint (over 5 km) would also ensure that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility.

5.10.95 Allowing for potential changes in light intensity due to the vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 75 - 32 cd lights and the 200 cd lights would be perceived as 7.5 – 3.2 cd lights (See **Figure 5.7c**). Should this mitigation be achieved, the effects would become **not significant**.

5.10.96 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 8: Dumbarton Rock (visualisations on Figure 5.23)

Baseline and Sensitivity

5.10.97 This viewpoint is located on the volcanic plug of Dumbarton Rock. The elevation of this viewpoint above the Firth of Clyde and the town of Dumbarton gives spectacular panoramic views across Clyde, Loch Lomond and Argyll. Ben Lomond (Viewpoint 29) and Conic Hill (Viewpoint 19) are visible to the north while to the south of the Clyde are Langbank (Viewpoint 10), Finlaystone House (Viewpoint 13), and Lyle Hill, Greenock (Viewpoint 25). Overtoun House and the Lang Craigs are visible rising above Dumbarton. The view is widely varied in its character, ranging from the dense urban development of Dumbarton, Vale of Leven and the southern Firth of Clyde towns in the foreground and middle ground to the dramatic mountains of Argyll and Loch Lomond. The Kilpatrick Hills provide an area of open moorland that contrasts strongly with the more settled and built-up area that lies below the hills.

5.10.98 There is theoretical visibility of a number of operational, under construction or consented wind farms, as shown in the wireline views. Some of these are seen from beyond the radius of their own study areas and are discounted as they do not have potential to contribute to a significant cumulative effect. The majority of other baseline sites are also unlikely to contribute to significant cumulative effects, including Greengairs, Blantyre Muir and Extension, Rigmuir, a group of sites around Whitelee, Middleton, Neilston and Braco, all of which have limited or very limited theoretical visibility, are seen from some distance away, and in some cases have further screening by skyline woodland. These sites are discounted due to their lack of or very limited influence on the view. Corlic Hill (Inverclyde) and Priestside Farm wind farms, 10 km and 7.5 km away to the south-west of the viewpoint, are considered in the assessment.

5.10.99 This view has a high value. It is marked on mapping as a scenic viewpoint and is a well-known visitor attraction as well as having cultural heritage value. It does not lie within any

scenic designations but does overlook the Kilpatrick Hills LLA as well as overlooking LLTNP and Loch Lomond NSA and other local designations. The view has notable scenic qualities and a sense of place that arises in part from the contrast between the various aspects of the outlook. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers who are visiting the castle and the Rock, engaging in outdoor recreation and with a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.100 The ten turbines in the Proposed Development would be seen to the north-east of this viewpoint from a minimum of 5.5 km away, with all hubs visible, and would extend across around 18º of the view. The substation and several stretches of access tracks/ hardstandings would be visible, and tall cranes and other construction activity, including limited visibility of construction compounds, would be seen during the construction phase. The magnitude of change on this view would be **medium-high**, for the following reasons.

- The Proposed Development would be very readily apparent at relatively close proximity on a skyline that is currently unaffected by large-scale development.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The Proposed Development would be seen in the same aspect of the view as smaller-scale residential buildings, with which scale comparisons may arise.
- Visibility of infrastructure would increase the overall impact of the Proposed Development.

5.10.101 The factors that restrict the magnitude of change to a medium-high level are as follows.

- The Site is a large-scale landform with very simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- While the Proposed Development would introduce a new feature to the view, the wide range of baseline influences ensures that the view can accommodate and absorb different characteristics relatively easily.
- The Proposed Development would not be seen in direct relation to the eye-catching landform of Lang Craigs, which would continue to provide a focal point in the view. The high ground of the Lang Craigs rising to the right of the Proposed Development would also reduce the perceived scale of the turbines and reduce vertical impact.
- The Site is separated from the viewpoint by urban areas, ensuring visual and physical separation and preventing encroachment towards the viewpoint.
- The Proposed Development would affect a limited part – approximately 18º - of the panoramic view, ensuring that the great majority of the outlook would remain unaffected.
- The focal point of Ben Lomond would not be affected by the Proposed Development.

Significance of the Effect

5.10.102 The effect of the Proposed Development on this view would be major and **significant**. This is due to a combination of the factors that lead to the medium-high magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.103 While there is theoretical visibility of a number of operational, under construction and consented wind farms from this viewpoint, as described above, the great majority of these are discounted from the assessment due to the lack of potential for them to contribute to significant cumulative effects. Corlic Hill (Inverclyde) and Priestside Farm wind farms are, however, included in the assessment. There is theoretical visibility of the application stage site at Low Drumclog, but this would have a negligible effect on the view with very limited visibility gained from over 40 km away. One scenario is therefore considered in the cumulative assessment; the addition of the Proposed Development to the operational sites at Corlic Hill (Inverclyde) and Priestside Farm.

5.10.104 The addition of the Proposed Development to Corlic Hill (Inverclyde) and Priestside Farm would have a **low** cumulative magnitude of change. The magnitude of change is limited to this level by the relatively distant visibility of the operational wind farms (10 km and 7.5 km), particularly bearing in mind the modest height of the turbines and the very small proportion of the view that is occupied by them; the fact that only two operational wind farms would contribute to the cumulative effect; their close visual association with each other; and the similar landscape setting of the Proposed Development and the cumulative wind farms within Rugged Moorland Hills LCT.

5.10.105 The cumulative effect in the scenario of operational wind farms would be **not significant** due to a combination of the factors that lead to the low cumulative magnitude of change despite the high sensitivity of the viewpoint. No other cumulative scenarios are relevant at this viewpoint.

Night-time Effect

5.10.106 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the assessment of the viewpoints for which night-time photomontages have been undertaken and full assessments carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **significant** in both the 2,000 cd and 200 cd scenarios as a result of the proximity of turbines to the viewpoint; the visibility of all of the Proposed Development lights and their flashing appearance; and the elevation of the lighting on the skyline.

5.10.107 The effect would, however, be considerably moderated by baseline lighting in the view, including street lighting and residential lighting; the limited part of the view that would be affected by the lighting, with the notable skylines of Lang Craigs and Ben Lomond, which would be discernible at dawn/dusk, remaining unaffected; and the distance of the lights from the viewpoint (over 5 km), which ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. It is also relevant that Dumbarton Rock is not accessible at night-time.

5.10.108 Allowing for potential changes in light intensity due to the vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 75 - 32 cd lights and the 200 cd lights would be perceived as 7.5 – 3.2 cd lights (See **Figure 5.7c**). Should this mitigation be achieved, the effects would become **not significant**.

5.10.109 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 9: Cameron House seaplane jetty (visualisations on Figure 5.24)

Baseline and Sensitivity

5.10.110 This viewpoint is located on the shore of Loch Lomond, at a jetty near the Cameron House Hotel. A seaplane operates from this jetty, and a core path runs nearby. This view would be gained by people waiting to board or disembarking the seaplane, and users of the core path would gain a similar outlook. Residents in the hotel are unlikely to gain this view directly due to the angle of the view, but more angled views may be available. This view is an attractive, low-level outlook across the southern end of Loch Lomond, predominantly characterised by the Lowland Loch Basin - Loch Lomond & the Trossachs LCT. The extensive residential area of Balloch lies beyond the loch shore in the view towards the Site, but has almost no visibility due to the woodland that lines the shore. The Kilpatrick Hills form a backdrop to Balloch, rising to form the upland skyline that encloses this part of the loch. Auchincarroch Hill forms a distinctive high point at the northern end of the Site and Balloch Castle can be seen across the loch, opposite the viewpoint.

5.10.111 There is no visibility of cumulative wind farms in this view.

5.10.112 This view has a medium-high value. It is not marked on mapping as a scenic viewpoint, facilities such as parking are not provided specifically for the enjoyment of the view, and the view is scenic but not notably dramatic or mountainous. It does, however, lie within and overlook LLTNP, overlooks the Kilpatrick Hills LLA and Balloch Castle GDL, and is close to a core path. The susceptibility to change at this viewpoint is high as people who gain the view would be people embarking or disembarking from the seaplane, or walkers/ cyclists on the core path, all of whom are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its medium-high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.113 The ten turbines in the Proposed Development would be seen to the south-east of this viewpoint from a minimum of 5.9 km away, with all hubs visible, and would extend across around 17º of the view. The turbine bases would be screened by landform as would infrastructure, although tall cranes and other activity would be visible during construction. The magnitude of change on this view would be **medium-high**, for the following reasons.

- The Proposed Development would be very readily apparent at reasonably close proximity in an aspect of the view that is currently unaffected by large-scale human development.
- The appearance of some turbines seen at nearly full height on the skyline would increase their vertical impact.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The Proposed Development would affect the only open aspect of the view, as buildings and woodland enclose other aspects; this can draw the eye of the viewer.

- The view across water can reduce the perceived distance of the Proposed Development from the viewpoint.

5.10.114 The factors that restrict the magnitude of change to a medium-high level are as follows.

- The Kilpatrick Hills form a large-scale skyline with simple, unenclosed landscape patterns that can accommodate the turbines without uncomfortable scale comparisons. The uniform and horizontal nature of the skyline also reduces the perceived scale of the turbines.
- The location of turbine bases behind the skyline ensures that the Proposed Development would be clearly associated with the upland Rugged Moorland Hills LCT that covers the Kilpatrick Hills, without encroaching down into the more complex and settled Lowland Loch Basin - Loch Lomond & the Trossachs, within which the viewpoint lies.
- The focal point of Balloch Castle would not be directly affected by the Proposed Development.
- The Proposed Development would affect a limited part of the view - approximately 17º - and would not extend across the full open part of the outlook.
- While views across water can reduce the perceived distance between the viewpoint and the Proposed Development, the intervening water also provides visual and physical separation, so that the Proposed Development would not be perceived as encroaching towards the viewpoint.
- The containment of the Proposed Development on a single, uniform skyline landform is beneficial as it creates a cohesive grouping of turbines. The turbines are designed to form a cohesive, compact group in this view, and have specifically been contained to the south of Auchincarroch Hill, which forms punctuation at the northern end of the Kilpatrick Hills.

Significance of the Effect

5.10.115 The effect of the Proposed Development on this view would be major and **significant** due to a combination of the factors that lead to the medium-high magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.116 There is no visibility of cumulative wind farms in this view and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.117 A full assessment of night-time effects has not been carried out for this viewpoint as while it has been visited at night-time, night-time photomontages have not been produced. However, overall conclusions regarding night-time effects can be drawn from the site visit and the assessment of the five viewpoints for which night-time photomontages have been produced and full assessments carried out.

5.10.118 The site visit indicated that while the area in the immediate vicinity of the viewpoint is unlit, there is extensive baseline lighting of the Cameron House complex, part of which has a large glass frontage with extensive interior lighting. There is also street lighting along the road and other external lighting around the buildings. Baseline lighting is of various colours, including white, yellow, and orange. The view towards the Proposed Development is largely unlit.

5.10.119 It is likely that the night-time effect at this viewpoint would be **significant** in both the 2,000 cd and 200 cd scenarios as a result of the visibility of all of the Proposed Development lights; the red colour of the lights, their flashing appearance, and their location in a dark aspect of the view. The effect would, however, be tempered by the presence of baseline lighting around the viewpoint, albeit in a different aspect of the view, and the distance of the lights from the viewpoint (over 5 km), which ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility.

5.10.120 Allowing for potential changes in light intensity due to the vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 32 - 13 cd lights and the 200 cd lights would be perceived as 3.2 – 1.3 cd lights (See **Figure 5.7c**). Should this mitigation be achieved, the effects would become **not significant**.

5.10.121 A cumulative night-time assessment is not required due to lack of visibility of relevant wind farms. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 10: Langbank (visualisations on Figure 5.25)

Baseline and Sensitivity

5.10.122 This viewpoint is located on an on-street core path that runs parallel to the A8 in Langbank, on the southern side of the Clyde. It is included to represent views gained by residents in Langbank as well as users of the core path. This view is representative of a number of views from built-up areas that lie to the south of the Clyde, opposite the Site. Dumbarton Rock (Viewpoint 8) is clearly visible and the built-up areas of Dumbarton and Milton form a distinctive edge along the on the north side of the water. Overtoun House GDL can be seen to the right of Dumbarton Rock on the wooded hillside with the distinctive landform of the Lang Craigs rising behind it.

5.10.123 There is theoretical visibility of wind farms at Greengairs/Greengairs East Resubmission from this viewpoint, but these sites are seen from outwith their own study areas and are discounted from the assessment.

5.10.124 This view has a medium value. It is not marked on mapping as a scenic viewpoint, facilities such as parking are not provided for the enjoyment of the view, the view is not notably scenic or dramatic, and it does not lie within a scenic designation, although part of the outlook is towards the Kilpatrick Hills LLA (including, most notably, the Lang Craigs). The susceptibility to change at this viewpoint is high as it is included to represent views gained by local residents in Langbank, who have an inherent high susceptibility, as well as users of the core path. The sensitivity of the view is **high** due to the residential nature of some viewers.

Magnitude of Change

5.10.125 The ten turbines in the Proposed Development would be seen to the north-east of this viewpoint from a minimum of 7.4 km away, with all hubs visible, and would extend across around 14º of the view. Several stretches of access tracks/hardstandings would be visible. The substation is theoretically visible but would be partly screened by woodland, as shown on the photomontage. Tall cranes and other construction activity, including

limited visibility of construction compounds, would be seen during the construction phase. The magnitude of change on this view would be **medium-high**, for the following reasons.

- The Proposed Development would be very readily apparent at relatively close proximity on a skyline that is unaffected by large-scale development.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The appearance of turbines seen at nearly full height on the elevated skyline would increase their vertical impact.
- The houses on this edge of Langbank are orientated northwards across the Clyde and would therefore gain direct views towards the Proposed Development.
- The Proposed Development would be seen in the same aspect of the view as smaller-scale residential buildings, with which scale comparisons may arise.

5.10.126 The factors that restrict the magnitude of change to a medium-high level are as follows.

- The Site is a large-scale landform with very simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The Proposed Development would not be seen in direct relation to the eye-catching landforms of Lang Craigs and Dumbarton Rock, which would continue to provide focal points in the view.
- While the Proposed Development would introduce a new feature to the view, the wide range of baseline influences ensures that the view can accommodate and absorb different characteristics.
- The Site is separated from the viewpoint by the A8 corridor, the River Clyde and by urban areas, ensuring visual and physical separation and preventing encroachment. This in turn ensures that the Proposed Development would be associated with the upland moorland rather than the urban areas that lie on either side of the Clyde.
- The Proposed Development would be seen in a limited part – approximately 14º - of the full view up, down and across the Clyde, ensuring that the great majority would remain unaffected. The turbines have been designed to form a cohesive, compact group in this view, and to avoid visibility in direct relation to Lang Craigs.

Significance of the Effect

5.10.127 The effect of the Proposed Development on this view would be major and **significant** due to a combination of the factors that lead to the medium-high magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.128 There is no relevant visibility of cumulative wind farms in this view and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.129 A full assessment of night-time effects has not been carried out for this viewpoint as while it has been visited at night-time, night-time photomontages have not been produced. However, overall conclusions regarding night-time effects can be drawn from the site visit and the assessment of the five viewpoints for which night-time photomontages have been produced and full assessments carried out.

5.10.130 The site visit indicated that there is extensive visibility of baseline lighting in this view, including urban and residential lighting; street lighting on both the A8 and the street where the viewpoint is located; at the railway station; on the waterbody of the River Clyde and the northern bank of the river; and moving vehicle lights on the A8. Baseline lighting includes white, yellow, orange and red light sources and a number of moving or flashing lights, both on vehicles on the A8 and navigational lights on the Clyde.

5.10.131 For road-users, the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios due to the baseline lighting in the view and the moving nature of viewers. For residential viewers, it is likely that the night-time effect at this viewpoint would be **significant** in the 2,000 cd scenario as a result of the proximity of turbines to the viewpoint; the visibility of all of the Proposed Development lights; the elevation of the lights above the skyline, and their flashing appearance. The effect would, however, be considerably moderated by the extensive and widely varied baseline lighting seen in the view and the distance of the lights from the viewpoint (over 7 km), which ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. The effect arising in the 200 cd scenario is likely to be **not significant** due to the reduced light source in this well-lit baseline context.

5.10.132 Allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 75 - 32 cd lights and the 200 cd lights would be perceived as 7.5 – 3.2 cd lights (See **Figure 5.7c**). Should this mitigation be achieved, the effects of both 200 cd and 2,000 cd would be **not significant** for all users.

5.10.133 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 11: Inchcailloch (visualisations on Figure 5.26)

Baseline and Sensitivity

5.10.134 This viewpoint is located on the island of Inchcailloch, on Loch Lomond. This island, in common with the majority of the Loch Lomond islands, is well-wooded with long views being restricted to very specific elevated locations and some shorelines. Where there are long, open views available, these are generally orientated to the north, west or east, where the spectacular setting of Loch Lomond is more apparent. Views to the south, in the direction of the Proposed Development, are relatively unremarkable and thus not promoted or consciously created through tree felling in the same way as views in other directions. Inchcailloch provides an example of this; the high point of the island is marked on maps as a viewpoint and is accessed by a core path. However, map symbology indicates that the scenic view is gained to the north only, and in reality the southern part of the outlook is heavily screened by woodland.

5.10.135 The viewpoint included here represents the highest level of visibility that could be found on Inchcailloch and is located on a core path that runs up the southern side of the island. Inchcailloch has been selected as the most relevant island for a viewpoint due to the ease of public access, as other islands require specific arrangements for landing.

5.10.136 There is theoretical visibility of operational and consented wind farms at Neilston, Earlsburn and Shelloch in this view but this visibility is negligible/very limited and distant, and baseline wind farms are discounted from the assessment.

5.10.137 This view has a high value. The viewpoint is located on a core path, has notable scenic qualities and lies within and overlooks LLTNP and the Loch Lomond NSA. There are visitor facilities on Inchcailloch, including signposted walks and toilets, and access is provided by regular boats. The susceptibility at this viewpoint is high as people who gain the view would be walkers on the core path who are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.138 The ten turbines in the Proposed Development would be theoretically seen to the south of this viewpoint from a minimum of 9.9 km away, with all hubs visible, and would extend across around 10º of the view. Extensive screening is provided by the woodland that covers Inchcailloch, and the photomontage view illustrates the higher level of visibility that would be gained in winter/spring when trees are bare; this woodland would provide increased screening in summer when leaves are out on the deciduous trees. Infrastructure would be screened by landform other than several very small sections of access tracks/ hardstandings. Tall cranes and other activity would theoretically be visible during the construction phase. All elements of infrastructure would be screened and filtered by woodland and are unlikely to be clearly discernible in the view. The magnitude of change on this view would be **medium-low**, for the following reasons.

- Parts of the Proposed Development would be discernible at moderate proximity in an aspect of the view that is currently unaffected by large-scale development.
- Where visible, the Proposed Development would introduce movement and contrasting colour and texture into the wooded setting through which it is seen. The filtering of the view by woodland could lead to intermittent visibility of movement of the turbines, which can be eye-catching if full turbines or rotors are not visible.

5.10.139 The factors that restrict the magnitude of change to a medium-low level are as follows.

- Screening and filtering by woodland considerably reduces visibility of the Proposed Development, as shown in the photomontage view.
- The woodland screening ensures that the vertical impact of the turbines would not be as apparent as when turbines are seen in full, as the filtering fragments visibility.
- The focus of views from Inchcailloch is towards the dramatic and highly scenic northern, eastern and western parts of Loch Lomond, and the unremarkable nature of this southward aspect of the view ensures that it is less eye-catching than other outwards views from the island. People gaining this view of the Proposed Development would either have just seen or be about to see the spectacular northwards outlook that is gained from the high point of the path (which would not be affected by the Proposed Development) and, in comparison, this outlook is unlikely to catch the attention of the viewer.
- Where the Proposed Development is seen, the Kilpatrick Hills form a large-scale skyline with simple, unenclosed landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The Proposed Development would affect a small part - approximately 10º - of the outlook that is gained from this viewpoint, so that the great majority of the view would remain unaffected.

- Visibility in summer would be reduced from that shown on the photomontage, which was photographed in spring, before trees are in leaf.

Significance of the Effect

5.10.140 The effect of the Proposed Development on this view would be moderate and **not significant** due to a combination of the factors that lead to the medium-low magnitude of change on the view despite the high sensitivity of the viewpoint. A combination of a medium-low magnitude of change and high sensitivity can be assessed as significant or not significant; in this case, it is considered to be not significant due to the extensive screening of the turbines by woodland and the absence of the promotion of unremarkable southwards views in comparison to spectacular northwards views.

Cumulative Assessment

5.10.141 While there is some theoretical visibility of baseline wind farms from this viewpoint, as described above, this is discounted from the assessment due to very limited actual visibility. There is negligible theoretical visibility of the application stage site at Earlsburn Extension from 28 km, which would not be discernible. The cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.142 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the assessment of the viewpoints for which night-time photomontages have been undertaken and full assessments carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **significant** in the 2,000 cd scenario as a result of the visibility of all of the Proposed Development lights, which would be seen intermittently through the trees, and their flashing appearance; the likely dark environment around the viewpoint and the likely dark setting in which the Proposed Development lights would be seen. The effect would, however, be moderated by the limited part of the view that would be affected by the lighting; the screening and filtering of visibility by woodland; and the distance of the lights from the viewpoint (over 9 km), which would ensure that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. This viewpoint is unlikely to be well-frequented at night-time as while overnight camping at the Port Bawn camp site on Inchcailloch is permitted, there is little reason for visitors to be in the vicinity of the viewpoint at night. The effect arising in the 200 cd scenario would likely be **not significant** due to the reduced light source.

5.10.143 Allowing for potential changes in light intensity due to the vertical elevation angle from turbine light as well as the intervening distance, the 2,000 cd lights would be perceived as 750 - 75 cd lights and the 200 cd lights would be perceived as 75 – 7.5 cd lights (See **Figure 5.7c**). Should this mitigation be achieved, the effects would be **not significant**.

5.10.144 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 12: Endrick Viewpoint (visualisations on Figure 5.27)

Baseline and Sensitivity

5.10.145 This viewpoint is located at the Endrick Viewpoint, which is close to the southern shore of Loch Lomond at Ring Wood. The viewpoint is signposted from nearby but not marked on the ground and while it is accessed by a core path, the path is not surfaced or waymarked. This viewpoint has a low elevation and this, combined with surrounding woodland, ensures that the view is fairly restricted, with no actual visibility of the setting to Loch Lomond, including Ben Lomond, which is screened by woodland. The Campsie Fells (including Dumgoyne Hill, Viewpoint 16), which lie to the south-east, provide a key feature in the view. Duncryne Hill (Viewpoint 7) is also visible, although its distinctive shape is less apparent here than in many views due to screening by woodland.

5.10.146 There is theoretical visibility of operational and consented wind farms at Craigengelt and Shelloch in this view. This is, however, very limited and distant, and is not/would not be discernible in the view. Baseline wind farms are discounted from the assessment.

5.10.147 This view has a high value. It is a signposted walking destination that lies within and overlooks LLTNP and the Loch Lomond NSA and overlooks other designated areas including the Campsie Fells Kilpatrick Hills LLA. Parking is provided at the RSPB Scotland Loch Lomond centre (several kilometres away) and the viewpoint is accessed by a core path. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers who are engaging in outdoor recreation on the core path and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.148 The ten turbines in the Proposed Development would be seen to the south of this viewpoint from a minimum of 7.5 km away, with eight hubs theoretically visible, and would extend across around 13º of the view. Screening is provided by woodland in the foreground of the view and on Duncryne Hill, and this would considerably reduce the actual visibility of the Proposed Development. Infrastructure would be screened by landform, although tall cranes would be visible during the construction phase. The magnitude of change on this view would be **medium-low**, for the following reasons.

- The Proposed Development would be seen at relatively close proximity in an aspect of the skyline that is currently unaffected by large-scale development.
- The Proposed Development would introduce movement and contrasting colour and texture into the woodland setting in which it is seen.

5.10.149 The factors that restrict the magnitude of change to a medium-low level are as follows.

- Screening and filtering by woodland would considerably reduce visibility of the Proposed Development and reduce the vertical impact of the turbines.
- The extensive woodland in the view also ‘softens’ the relationship of the turbines with Duncryne Hill, so that the landform is less distinctive than is sometimes the case and the juxtaposition of the turbines with the landform would be less prominent than may be suggested by the wireline view.
- The key feature of the Campsie Fells would remain unaffected by the Proposed Development, as would the distinctive skyline of the eastern Kilpatrick Hills.

- The Proposed Development would be separated from the viewpoint by woodland, creating visual and physical separation and preventing the perception of encroachment towards the viewpoint.
- The Proposed Development would be seen in a limited part – approximately 13º - of the view, ensuring that the great majority of the outlook would remain unaffected.

Significance of the Effect

5.10.150 The effect of the Proposed Development on this view would be moderate and **significant** due to a combination of the factors that lead to the medium-low magnitude of change on the view and the high sensitivity of the viewpoint. A combination of a medium-low magnitude of change and high sensitivity can be assessed as significant or not significant; in this case the effect is significant due to the movement of the turbines that would be seen above the woodland at relatively close proximity.

Cumulative Assessment

5.10.151 While there is some theoretical visibility of baseline wind farms from this viewpoint, as described above, this is discounted from the assessment due to very limited actual visibility. There is also very limited theoretical visibility of the application stage site at Earlsburn Extension from 25 km, which would not be discernible. The cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.152 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the assessment of the viewpoints for which night-time photomontages have been undertaken and full assessments carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **significant** in the 2,000 cd scenario as a result of the theoretical visibility of eight of the Proposed Development lights (several of which would be seen intermittently through the trees) and their flashing appearance; the likely dark environment around the viewpoint; and the likely dark setting in which the Proposed Development lights would be seen. The effect would, however, be moderated by the limited part of the view that would be affected by the lighting; the filtering of visibility by woodland; and the distance of the lights from the viewpoint (over 7 km), which would ensure that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. This viewpoint is unlikely to be well-frequented at night-time as while the paths can be accessed at night, the RSPB car park is closed between 5 pm and 9 am. The effect arising in the 200 cd scenario would likely be **not significant** due to the reduced light source.

5.10.153 Allowing for potential changes in light intensity due to the vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 75 - 32 cd lights and the 200 cd lights would be perceived as 7.5 – 3.2 cd lights (See **Figure 5.7c**). Should this mitigation be achieved, the effects in both scenarios would be **not significant**.

5.10.154 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 13: Finlaystone Estate (visualisations on Figure 5.28)

Baseline and Sensitivity

5.10.155 This viewpoint is located in Finlaystone Country Estate, a privately-owned country park, events venue and visitor attraction which is also a GDL. The landform of the estate is orientated northwards, across the Clyde, and while there are some open views to the north, north-west and north-east, the extensive woodland found throughout much of the GDL screens and filters views from the wider landscape. The area around the house is more open, with formal gardens and terraces, and the viewpoint is located on a terrace above the house. As can be seen in the photograph, trees and woodland provide some screening even in these more open aspects. Views with less screening may be available from the terraces below the house but these are not publicly accessible. The citation for the GDL[16] notes that:

"To the north, across the Firth of Clyde, lies Dumbarton Rock and the town of Dumbarton beyond which views are gained to the Kilpatrick Hills. Views can be gained along and across the Clyde, particularly from the terraced garden."

5.10.156 Dumbarton Rock is not seen in this specific view due to woodland screening, but the built edge of Dumbarton can be seen on the north side of the Clyde.

5.10.157 While there is theoretical visibility of baseline wind farms in this view, these are seen from beyond their own study areas and are not relevant to the cumulative assessment. Baseline wind farms are discounted from the assessment.

5.10.158 This view has a medium-high value. It is not marked on mapping as a scenic viewpoint but is within the GDL/recreational landscape where parking and other facilities are provided and is a scenic view across the terraced gardens and the Firth of Clyde. It also overlooks the Kilpatrick Hills LLA. The susceptibility to change at this viewpoint is high as people who gain the view would be visitors who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its medium-high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.159 The ten turbines in the Proposed Development would be seen to the north-east of this viewpoint from a minimum of 8.5 km away, with all hubs visible, and would extend across around 13º of the view. Several stretches of access tracks/hardstandings would be visible. The substation is theoretically visible but would be screened by trees (although it may be seen in other nearby views). Tall cranes and other construction activity, including limited visibility of a borrow pit and construction compound, would be seen during the construction phase. The magnitude of change on this view would be **medium-high**, for the following reasons.

- The Proposed Development would be very readily apparent at moderate proximity on a part of the skyline that is currently unaffected by large-scale development.

[16] http://portal.historicenvironment.scot/designation/GDL00180

- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The appearance of turbines seen at nearly full height on the elevated skyline would increase their vertical impact.
- The eye of the viewer is likely to be drawn to the elevated skyline – including the Proposed Development - that forms the northern backdrop to views from the terraced gardens. The Proposed Development would also be seen on part of the open aspect of the outlook, with much of the view being enclosed by woodland and walls and railings in the gardens.

5.10.160 The factors that restrict the magnitude of change to a medium-high level are as follows.

- The Site is a large-scale landform with very simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The general orientation of the landform of Finlaystone estate and the key axis of the terraced gardens is north-north-east, whereas the Proposed Development lies to the north-east. This means that while the Proposed Development would be seen in the backdrop to views from the gardens, as described above, it would be off-centre to the main north-north-east orientation.
- The Site is separated from the viewpoint by the Clyde and by urban areas, ensuring visual and physical separation and preventing perceived encroachment. This in turn ensures that the Proposed Development would be associated with the upland moorland rather than the landscape that around the viewpoint.
- The extensive urban development seen in the view ensures that it lacks the remote, undeveloped character with which the Proposed Development would have the greatest contrast.
- The Proposed Development would be seen in a limited part – approximately 13º - of the open, albeit filtered, view up, down and across the Clyde, ensuring that the great majority of the outlook would remain unaffected.

Significance of the Effect

5.10.161 The effect of the Proposed Development on this view would be major and **significant** due to a combination of the factors that lead to the medium-high magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.162 While there is some theoretical visibility of baseline wind farms from this viewpoint, as described above, this is discounted from the assessment as the wind farms lie beyond their own study areas. There is theoretical visibility of the application stage site at Dewshill, but this too lies outwith its own study area radius and is also discounted from the assessment. The cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.163 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the assessment of the viewpoints for which night-time photomontages have been undertaken and full assessments carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **significant** in the 2,000 cd scenario as a result of the visibility of all of the Proposed Development

lights; the elevation of the lights above the skyline that forms the backdrop to the open part of the view; the red colour of the lights and their flashing appearance. The effect would, however, be moderated by the baseline lighting that is likely to be seen in the view (particularly on the northern side of the Clyde but also possibly in the foreground) and the distance of the lights from the viewpoint (over 8 km), which ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. The effect arising in the 200 cd scenario would likely be **not significant** due to the reduced light source.

5.10.164 Allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 75 - 32 cd lights and the 200 cd lights would be perceived as 7.5 – 3.2 cd lights (See **Figure 5.7c**). Should this mitigation be achieved, the effects in both scenarios would be **not significant**.

5.10.165 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 14: WHW Near Drymen (visualisations on Figure 5.29)

Baseline and Sensitivity

5.10.166 This viewpoint is located on the minor road that forms the route of WHW, NCR 7 and a core path approximately 1 km to the south-east of Drymen. The elevated location gains an open panoramic view across the Kilpatrick Hills, the Luss hills (including the distinctive and eye-catching landforms of Viewpoint 26, Beinn Dubh, and Beinn Eich), Conic Hill (Viewpoint 19) and the Campsie Fells including Dumgoyne Hill (Viewpoint 16). The viewpoint lies within Lowland River Valleys – Central LCT, high on the northern/eastern valley side of the Endrick Water, the wooded course of which can be seen running across the middle-ground of the view, in front of the settlement of Croftamie. Beyond Croftamie, the river valley merges into Lowland Hill Fringes – Central LCT, which in turn rises up into the Rugged Moorland Hills LCT within which the Site lies. Croftamie marks the boundary of LLTNP, with the area beyond the settlement lying outwith the Park.

5.10.167 There is theoretical visibility of baseline wind farms at Craigengelt, Corlic Hill (Inverclyde) and Shelloch from this viewpoint. Craigengelt and Shelloch have limited and relatively distant visibility and are discounted from the assessment due to their very limited influence on the view. Corlic Hill (Inverclyde) has higher theoretical visibility but is seen from nearly 24 km away and does not have a notable influence on the view. Baseline wind farms are therefore discounted from the assessment.

5.10.168 This view has a medium-high value. It is not a marked viewpoint and facilities are not provided for the enjoyment of the view, but it lies within and overlooks LLTNP, overlooks the Loch Lomond NSA and Kilpatrick Hills LLA, and is on the WHW and NCR 7. The susceptibility to change is high as people who gain the view would include walkers or cyclists using the signposted recreational routes. The combination of the high susceptibility to change of the view and its medium-high value results in a **high** sensitivity.

Magnitude of Change

5.10.169 The ten turbines in the Proposed Development would be seen to the south-west of this viewpoint from a minimum of 8.7 km away, with all hubs visible, and would extend across around 11º of the view. Infrastructure would be screened by landform other than several very short sections of access tracks. Tall cranes and other activity would be visible during the construction phase. The magnitude of change on this view would be **medium** for the following reasons.

- The Proposed Development would be readily apparent at relatively close proximity in an aspect of the view that is unaffected by large-scale development.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The aspect of the view in which the Proposed Development would be seen has a horizontal nature, and the turbines, some seen at full height, would have a vertical impact in this setting.

5.10.170 The factors that restrict the magnitude of change to a **medium** level are as follows.

- The Site is a large-scale landform with very simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The Proposed Development would not be seen in relation to the scenic and eye-catching Luss hills or Campsie Fells, but in the less remarkable and simpler context of the Kilpatrick Hills.
- The Site is separated from the viewpoint by the landform of the Endrick valley and there is a notable change in landscape character from the Lowland River Valleys – Central LCT within which the viewpoint lies, to the Rugged Moorland Hills LCT within which The Site lies. This break creates visual and physical separation between the Proposed Development and the viewpoint, preventing encroachment into the valley and ensuring that the Proposed Development is associated with the upland moorland rather than the valley side landscape around the viewpoint.
- The Proposed Development would affect a limited part – approximately 11º - of the full panoramic view from this elevated location, ensuring that the great majority of the view, including its most scenic, eye-catching parts, would remain unaffected.

Significance of the Effect

5.10.171 The effect of the Proposed Development on this view would be major/moderate and **significant** due to a combination of the factors that lead to the medium magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Effect

5.10.172 While there is some theoretical visibility of baseline wind farms from this viewpoint, as described above, this is discounted from the assessment due to very limited actual visibility. There is also very limited theoretical visibility of the application stage site at Earlsburn Extension from 21 km, which would not be discernible. The cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.173 The sensitivity of this view would reduce to a **medium** level at night-time. The factors that lead to the daytime value and the elements that add value to it – the landscape setting -

cannot readily be discerned in darkness, and the viewpoint is not located in a dark sky park. It is notable that the more dramatic skyline of the view, which is more likely to be discernible and eye-catching at dawn/dusk, lies to the west of the Proposed Development and would not be affected by the lighting, whereas the skyline on which the Proposed Development lighting would be seen is unremarkable and does not form a landmark in the view at dawn/dusk. The susceptibility of viewers would be reduced as people using the road during the hours of darkness are less likely to be following the WHW or NCR 7 and are more likely to be in vehicles. There is also baseline lighting in the view, including white/yellow lighting in Croftamie and at properties around the view, as well as vehicles on the network of roads that lie between the viewpoint and the Proposed Development, and this reduces the susceptibility of the viewer.

5.10.174 Lighting on ten turbines would be visible from a minimum of 8.7 km away at this viewpoint and would introduce a new influence of red lights into the night-time view. The position of the lights on the elevated, undeveloped and unlit skyline would increase their effect on the view, as would the flashing appearance that would be likely to arise. However, the magnitude of change arising from the lighting is moderated by the containment of the lighting within approximately 11º of the view; the moving nature of viewers; the distance of the lights from the viewpoint (over 8 km), which ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility; and the presence of baseline lighting in the same part of the view, including moving red tail lights on vehicles, so that the turbine lights would not introduce lighting into a completely dark environment. It is also relevant that the dramatic skyline that lies to the west, where the eye of the viewer is more likely to be drawn at dawn/dusk (and particularly at dusk, when the sun will be setting in the west), would not be affected by the lighting. The distinctive skyline of the Campsie Fells would also remain unaffected.

5.10.175 These factors result in a **medium** magnitude of change in the 2,000 cd lighting scenario while in the 200 cd scenario, the magnitude of change would reduce to a **medium-low** level due to the reduced light source.

5.10.176 Allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 750 - 75 cd lights and the 200 cd lights would be perceived as 75 – 7.5 cd lights (See **Figure 5.7c**), Should this mitigation be achieved, the magnitude of change arising from the 200 cd light would reduce to a **low** level while the magnitude of change arising from the 2,000 cd light would reduce to a **medium-low** level.

5.10.177 The night-time effect of turbine lighting on this viewpoint would be moderate and **significant** in the 2,000 cd scenario due to the factors considered in the medium sensitivity of the viewpoint and the medium night-time magnitude of change. A combination of a medium magnitude of change and medium sensitivity can result in an effect that is significant or not significant. In this case, the effect is assessed to be significant due to the location of the lighting on the elevated skyline. In the 200 cd scenario the effect would be moderate/minor and **not significant**. If mitigation relating to changes in light intensity due to vertical elevation angle from the turbine light is achieved, the effect in both scenarios would be **not significant**.

5.10.178 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 15: Ben Bowie (visualisations on Figure 5.30)

Baseline and Sensitivity

5.10.179 This viewpoint is located at the summit of Ben Bowie (313 m AOD), which rises above Helensburgh at the south-western end of Loch Lomond. The panoramic outlook from this hill is highly scenic and dramatic, with views over Loch Lomond (including the islands), the Firth of Clyde, Ben Lomond, Conic Hill, the Campsie Fells, Ben More and Stob Binnein, the Arran hills, the Cowal hills, the Clyde Muirshiel hills, and the Kilpatrick Hills. Ben Bowie marks the Highland Boundary Fault on the western side of Loch Lomond, aligning with Conic Hill on the eastern side and the islands within the loch. Extensive urban development is visible along both sides of the Firth of Clyde, but the built-up areas of Vale of Leven are screened by intervening landform and forestry.

5.10.180 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as shown in the wireline views. Some of these sites are seen from beyond the radius of their own study areas, and they are discounted as they do not have potential to contribute to a significant cumulative effect. The majority of other baseline sites are also unlikely to contribute to significant cumulative effects, including Earlsburn, Earlsburn North, Shelloch, Middleton, Whitelee and Neilston, all of which have limited or very limited theoretical visibility and are seen from a considerable distance away. These sites are all discounted from the assessment due to their lack of or very limited influence on the view. Corlic Hill (Inverclyde) wind farm, 10.9 km away to the south of the viewpoint, is considered in the assessment.

5.10.181 This view has a medium-high value. It is not signposted or on a core path and is not recognised on mapping as a scenic viewpoint. It is, however, a walking destination that is close to both the John Muir Way and the Three Lochs Trail, lies within LLTNP and the Loch Lomond NSA, and overlooks LLTNP, the NSA, the Kilpatrick Hills LLA and a number of other more distant national and local designations. The view has notable scenic qualities and a widely varied outlook across western central Scotland. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its medium-high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.182 The ten turbines in the Proposed Development would be seen to the south-east of this viewpoint from a minimum of 9.1 km away, with all hubs visible, and would extend across around 11º of the view. Infrastructure would be screened by landform other than several very short sections of access tracks/hardstandings. Tall cranes and possibly borrow pit excavation would be visible during the construction phase. At over 9 km away, these limited visible elements of infrastructure would have a limited influence on the view. The magnitude of change on this view would be **medium**, for the following reasons.

- The Proposed Development would be apparent at moderate proximity in an aspect of the view that is currently unaffected by large-scale human development.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.

- While the Proposed Development would be separated from the viewpoint by several different LCTs and the Vale of Leven urban area, this is not apparent in the view due to the intervening drop in landform and screening by forestry. The LCT within which the viewpoint lies - Open Ridges – has a number of similarities to the Rugged Moorland Hills LCT that covers the Site and, in the absence of an obvious break between the LCTs, this can lead to a lack of separation and resulting perception of encroachment towards the viewpoint.

5.10.183 The factors that restrict the magnitude of change to a medium level are as follows.

- The Site is a large-scale landform with very simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The lower elevation of the Proposed Development in relation to the viewpoint reduces the perceived prominence of the turbines as they are not seen on an elevated skyline that rises above the viewpoint. The partial backclothing of turbines also reduces their vertical impact.
- The Proposed Development would not be seen in relation to the highly scenic and dramatic aspects of the view, which are primarily Loch Lomond, Ben Lomond and the Firth of Clyde, but also include more distant and eye-catching hills. These landmarks of the view would therefore remain unaffected. The Proposed Development would not be seen in the context of LLTNP or the Loch Lomond NSA.
- The Proposed Development would, conversely, be seen in the less remarkable and simpler setting of the Kilpatrick Hills.
- The Proposed Development would affect a limited part – approximately 11º - of the full panoramic view from Ben Bowie, ensuring that the great majority of the view, including its most scenic parts, would remain unaffected.

Significance of the Effect

5.10.184 The effect of the Proposed Development on this view would be major/moderate and **significant** due to a combination of the factors that lead to the medium magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.185 While there is theoretical visibility of a number of operational, under construction and consented wind farms from this viewpoint, as described above, the great majority of these are discounted from the assessment due to the lack of potential for them to contribute to significant cumulative effects. Corlic Hill (Inverclyde) wind farm is, however, included in the assessment. There is theoretical visibility of the application stage site at Earlsburn Extension, but this would have a negligible effect on the view with very limited visibility gained from over 36 km away. One scenario is therefore considered; the addition of the Proposed Development to the operational site at Corlic Hill (Inverclyde).

5.10.186 In this scenario, the addition of the Proposed Development would have a **low** cumulative magnitude of change due to the relatively distant visibility of Corlic Hill (Inverclyde) - 10 km - particularly bearing in mind the modest height of the turbines and the very small proportion of the view that is occupied by them; the fact that only one operational wind farm would contribute to the cumulative effect; and the similar landscape setting of the Proposed Development and the cumulative wind farm within Rugged Moorland Hills LCT. The cumulative effect in the operational scenario would be **not significant** due to a combination of the factors that lead to the low cumulative magnitude of change despite the high sensitivity of the viewpoint. No other cumulative scenarios are relevant.

Night-time Effect

5.10.187 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the assessment of the viewpoints for which night-time photomontages have been undertaken and full assessments carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **significant** in the 2,000 cd scenario as a result of visibility of the Proposed Development lights and their flashing appearance; the likely dark environment around the viewpoint and the likely dark setting in which the Proposed Development lights would be seen. The effect would, however, be moderated by the limited part of the view that would be affected by the lighting; the location of the lighting to the south-east, ensuring that the dramatic and eye-catching skylines to the north and north-east, which will be apparent at dawn/dusk, remain unaffected; and the distance of the lights from the viewpoint (over 9 km), which ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. This viewpoint is unlikely to be well-frequented at night-time due to its relatively remote location. The effect arising in the 200 cd scenario would likely be **not significant** due to the reduced light source and increased separation distance.

5.10.188 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 750 cd lights and the 200 cd lights would be perceived as 210 – 75 cd lights. The effect in the 2,000 scenario would remain **significant** while the 200 cd scenario would remain **not significant.**

5.10.189 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 16: Dumgoyne Hill (visualisations on Figure 5.31)

Baseline and Sensitivity

5.10.190 This viewpoint is located at the summit of Dumgoyne Hill (427 m AOD), which punctuates the western end of the Campsie Fells with its distinctive volcanic landform. The panoramic outlook from this hill is scenic and widely varied, with views over Loch Lomond, Ben Lomond (Viewpoint 29), the Luss Hills, Auchineden Hill and The Whangie (Viewpoint 6), the Arrochar alps, the Trossachs, and, extending to the east, the Campsie Fells, as well as the Kilpatrick Hills. Greater Glasgow extends across the view to the south, while the settlements of Killearn and Balfron are seen to the north. This viewpoint lies within Lowland Hills – Central LCT and looks towards the Rugged Moorland Hills LCT that covers the Site across the Lowland River Valleys – Central and Lowland Hill Fringes – Central LCT. The Lowland River Valleys LCT covers Strath Blane, and the low-lying, enclosed landscape of fields, hedgerows, woodlands and scattered residential properties is clearly distinct from the upland types that lie on each side.

5.10.191 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as shown in the wireline views. Some of these sites are seen from beyond the radius of their own study areas, and they are discounted as they do not have potential to contribute to a significant cumulative effect. The other baseline sites are also discounted from the

assessment due to their very limited and distant theoretical visibility, with further screening by woodland in some cases. These include Corlic Hill (Inverclyde), Blantyre Muir and Extension, Rigmuir, Ardoch and Over Enoch, Whitelee, Middleton and Neilston.

5.10.192 This view has a high value. Dumgoyne Hill is a well-known walking destination, accessed by a core path and with some parking provided. The viewpoint lies within the southern Hills LLA and overlooks the Kilpatrick Hills LLA as well as LLTNP and Loch Lomond NSA and a number of other more distant national and local designations. The view has notable scenic qualities and a sense of place. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.193 The ten turbines in the Proposed Development would be seen to the south-west of this viewpoint from a minimum of 10.1 km away, with all hubs visible, and would extend across around 11º of the view. Infrastructure would be screened by landform other than several very short sections of access tracks/hardstandings. Tall cranes and other construction activity would be visible during the construction phase. At over 10 km away, these limited visible elements of infrastructure would have a very limited influence on the view. The magnitude of change on this view would be **medium**, for the following reasons.

- The Proposed Development would be readily apparent at relatively close proximity in an aspect of the view that is currently unaffected by large-scale development.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.

5.10.194 The factors that restrict the magnitude of change to a medium level are as follows.

- The Site is a large-scale landform with very simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The lower elevation of the Proposed Development in relation to the viewpoint reduces the perceived prominence of the turbines as they are not seen on an elevated skyline that rises above the viewpoint. The partial backclothing of turbines also reduces their vertical impact.
- The Proposed Development would not be seen in relation to the highly scenic and dramatic aspects of the view, which are primarily the mountains and hills of Loch Lomond and the Trossachs and Loch Lomond itself, but also include more distant and eye-catching hills. These landmarks of the view would therefore unaffected.
- The Proposed Development would, conversely, be seen in the less remarkable and simpler setting of the Kilpatrick Hills. and would not be seen in the context of LLTNP or the Loch Lomond NSA as the boundaries of these areas lie to the north of the line of view from the viewpoint to the Proposed Development.
- The Proposed Development would affect a limited part – approximately 11º - of the full panoramic view, ensuring that the great majority of the view, including its most scenic parts, would remain unaffected. The turbines have been designed to form a cohesive, compact group in this view.
- The Site is separated from the viewpoint by Strath Blane, creating visual and physical separation between the Proposed Development and the viewpoint.

Significance of the Effect

5.10.195 The effect of the Proposed Development on this view would be major/moderate and **significant** due to a combination of the factors that lead to the medium magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.196 While there is theoretical visibility of baseline wind farms from this viewpoint, as described above, this is discounted from the assessment due to very limited actual visibility. There is also very limited theoretical visibility of the application stage site at Low Drumclog from over 42 km away, which would not be discernible. There are therefore no relevant cumulative wind farm sites and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.197 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the assessment of the viewpoints for which night-time photomontages have been undertaken and full assessments carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **significant** in the 2,000 cd scenario as a result of visibility of the ten Proposed Development lights and their flashing appearance; the likely dark environment around the viewpoint and the likely dark setting in which the Proposed Development lights would be seen. The effect would, however, be moderated by the limited part of the view that would be affected by the lighting; the location of the lighting to the west, ensuring that the dramatic and eye-catching skylines to the north, north-west and north-east would remain unaffected; and the distance of the lights from the viewpoint (over 10 km), which ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. It is also relevant that this view is likely to be characterised by baseline lighting, particularly in the lower valleys, and while the Proposed Development lighting would add to this, it would introduce a new influence. This viewpoint is unlikely to be well-frequented at night-time due to its relatively remote location. The effect arising in the 200 cd scenario would likely be **not significant** due to the reduced light source and increased separation distance.

5.10.198 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 750 cd lights and the 200 cd lights would be perceived as 210 – 75 cd lights. The effects in the 2,000 would remain **significant** and the effects on the 200 cd scenario would remain **not significant**.

5.10.199 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 17: Balmaha Harbour (visualisations on Figure 5.32)

Baseline and Sensitivity

5.10.200 This viewpoint is located on the shore of Loch Lomond at Balmaha, on the pier that is used by a number of boats to access the loch. The settlement of Balmaha is based around a small bay on the loch, and a combination of landform and woodland around this bay result in very limited visibility or negligible of the Proposed Development from the majority of the village. The pier projects further to the west, into the loch, and therefore gains a more open view to the south, towards the Proposed Development. Balmaha is a key location within LLTNP; there is public transport access, the WHW runs through the village, the National Park Visitor Centre is located here, there is extensive car parking along with other visitor facilities including a marina, and waterbus and loch cruises arrival/departure points. Balmaha is also the main starting point for the walk up Conic Hill (Viewpoint 19).

5.10.201 The Highland Boundary fault runs through Balmaha and across Loch Lomond to Ben Bowie (Viewpoint 15). This is seen in the viewpoint photograph, which shows the view onto the loch towards the wooded Inchcailloch Island. Left of Inchcailloch is the relatively low landform of the lowlands, including the Kilpatrick Hills and Duncryne Hill (Viewpoint 7), while to the right of the island is the distinctive landform of the Luss hills (including Beinn Dubh, Viewpoint 26). Inchfad Island can be seen in the middle-ground of the view. The village of Luss (Viewpoint 23) lies behind Inchfad, at the foot of Beinn Dubh.

5.10.202 There is theoretical visibility of the consented wind farm at Shelloch from this viewpoint. This is, however, negligible, distant, and would be screened by vegetation. Baseline wind farms are therefore discounted from the assessment.

5.10.203 This view has a high value. The viewpoint lies within and overlook LLTNP and the Loch Lomond NSA, overlooks the Kilpatrick Hills LLA, and has notable scenic qualities. There are a number of visitor facilities nearby, including cruise boat access, and it is located close to the WHW and a core path. The susceptibility to change at this viewpoint is high as people who gain the view would be embarking or disembarking from boats or walkers, all of whom are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.204 The ten turbines in the Proposed Development would be seen to the south of this viewpoint from a minimum of 10.2 km away, with all hubs visible, and would extend across around 10º of the view. Infrastructure would be screened by landform other than one small area of hardstanding, with tall cranes visible during construction. However, at over 10 km away, these elements of infrastructure would have a very limited influence on the view. The magnitude of change on this view would be **medium**, for the following reasons.

- The Proposed Development would be readily apparent at moderate proximity in an aspect of the view that is currently unaffected by large-scale human development.
- The aspect of the view in which the Proposed Development is seen has a horizontal nature, and the turbines would have a notable vertical impact in this setting.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.

- The view of the Site across water can reduce the perceived distance of the Proposed Development from the viewpoint.

5.10.205 The factors that restrict the magnitude of change to a medium level are as follows.

- The Proposed Development would be seen in the less eye-catching and more uniform lowland part of the view, south of the Highland Boundary Fault, ensuring that the northern part of the view, including the landmark features of the Luss hills, would not be affected by the turbines.
- The Kilpatrick Hills form a large-scale skyline with simple, unenclosed landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- While the view across water can reduce the perceived distance of the Proposed Development from the viewpoint, it also provides physical/visual separation, so that the Proposed Development is not perceived as encroaching towards the viewpoint.
- The Proposed Development would affect a small part - approximately 10º - of the open outlook that is gained from this viewpoint, so that the great majority of the view would remain unaffected.
- The containment of the Proposed Development on a single, uniform skyline landform is beneficial as it creates a cohesive grouping of turbines. The turbines are designed to form a cohesive, compact group in this view.

Significance of the Effect

5.10.206 The effect of the Proposed Development on this view would be major/moderate and **significant** due to a combination of the factors that lead to the medium magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.207 While there is theoretical visibility of one baseline wind farm from this viewpoint, as described above, this is discounted from the assessment due to its negligible effect on the view. There is no theoretical visibility of application stage sites. There are therefore no relevant cumulative wind farm sites and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.208 The sensitivity of this view would reduce to a **medium** level at night-time. The factors that lead to the daytime value and the elements that add value to it – the landscape setting - cannot readily be discerned in darkness, and the viewpoint is not located in a dark sky park. It is notable that the more dramatic skyline of the view, which is likely to be discernible and eye-catching at dawn/dusk, lies to the west and north and would not be affected by the lighting, whereas the skyline on which the Proposed Development lighting would be seen is unremarkable and does not form a landmark in the view at dawn/dusk. The susceptibility of viewers would be reduced as there are likely to be fewer visitors to this viewpoint during the hours of darkness (as far as OPEN can ascertain, there are no scheduled night-time cruises from Balmaha during the hours of darkness). However, there is limited baseline lighting, with this being restricted to white/yellow lights along the southern shoreline of the loch, north of Gartocharn, and moving lights on boats, and this contributes to the susceptibility of the viewer.

5.10.209 Lighting on ten turbines would be visible from a minimum of 10.2 km away at this viewpoint and would introduce a new influence of red lights into the night-time view. The position of the lights on the largely unlit skyline would increase their effect on the view, as would the flashing appearance that would be likely to arise, and the elevation of the lights above the horizontal skyline. The magnitude of change arising from the lighting is moderated by the containment of the lighting within approximately 10º of the view; the distance of the lights from the viewpoint (over 10 km), which ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility; and the fact that the more dramatic skyline that lies to the west and north, where the eye of the viewer is more likely to be drawn at dawn/dusk (and particularly at dusk, when the sun will be setting in the west), would not be affected by the lighting. The balanced levels of the lights above the ground would also temper the magnitude of change.

5.10.210 These factors result in a **medium** magnitude of change in the worst-case scenario of 2,000 cd lighting while in the scenario of 200 cd, the magnitude of change would reduce to a **medium-low** level due to the reduced light source.

5.10.211 Allowing for potential changes in light intensity due to the vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 750 - 75 cd lights and the 200 cd lights would be perceived as 75 – 7.5 cd lights (see **Figure 5.7c**). Should this mitigation be achieved, the magnitude of change arising from the 200 cd light would reduce to a **low** level while the magnitude of change arising from the 2,000 cd light would reduce to a **medium-low** level.

5.10.212 The night-time effect of turbine lighting on this viewpoint would be moderate and **significant** in the 2,000 cd scenario due to the factors considered in the medium sensitivity of the viewpoint and the medium night-time magnitude of change. A combination of a medium magnitude of change and medium sensitivity can result in an effect that is significant or not significant. In this case, the effect is assessed to be significant due to the elevated location of the lighting above the level skyline. In the 200 cd scenario, the effect would be moderate/minor and **not significant** due to the reduced light source and increased separation distance. If mitigation relating to changes in light intensity due to vertical elevation angle from the turbine light is achieved, the effect in both scenarios would be **not significant**.

5.10.213 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 18: Port Glasgow (visualisations on Figure 5.33)

Baseline and Sensitivity

5.10.214 This elevated viewpoint is located in a residential area of Port Glasgow on the southern side of the Clyde. It represents views gained by residents in Port Glasgow as well as other nearby urban areas. The built-up areas of Cardross and Dumbarton can be seen on the north side of the water, with the Kilpatrick Hills and Lang Craigs rising behind Dumbarton. North of the viewpoint is Ben Bowie (Viewpoint 15), which marks the southern boundary of LLTNP, and further to the west is the coastal town of Helensburgh, behind which rises the distinctive peak of Beinn Chaorach. In the far west is the Rosneath

peninsula and the distinctive Cowal mountains, including the landmark Creachan Mor and Beinn Ruadh.

5.10.215 There is theoretical visibility of several baseline wind farms from this viewpoint, as shown in the wireline views. However, these sites are seen from beyond the radius of their own study areas, and they are discounted as they do not have potential to contribute to a significant cumulative effect.

5.10.216 This view has a medium value. It is not marked on mapping as a scenic viewpoint, facilities such as parking are not provided for the enjoyment of the view, and it does not lie within a scenic designation. The view is, however, scenic and overlooks LLTNP and the Kilpatrick Hills LLA. The susceptibility to change at this viewpoint is high as it is included to represent views gained by local residents in Port Glasgow, who have an inherent high susceptibility. The sensitivity of the view is **high** due to the residential nature of some viewers.

Magnitude of Change

5.10.217 The ten turbines in the Proposed Development would be seen to the north-east of this viewpoint from a minimum of 10.7 km away, with all hubs visible, and would extend across around 11º of the view. Infrastructure would be screened by landform other than short sections of access tracks/hardstandings. A very small upper part of the substation may also be visible, and tall cranes and other construction activity, including borrow pit excavation, would theoretically be visible during the construction phase. However, at over 10 km away, these elements of infrastructure would have a very limited influence on the view. The magnitude of change on this view would be **medium**, for the following reasons.

- The Proposed Development would be readily apparent at moderate proximity in an aspect of the view that is currently unaffected by large-scale human development.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The appearance of turbines seen at nearly full height on the horizontal skyline would increase their vertical impact.

5.10.218 The factors that restrict the magnitude of change to a medium level are as follows.

- The main orientation of landform on this southern side of the Clyde is north-north-east, whereas the Proposed Development would be seen to the north-east. Views of the Proposed Development would therefore generally be off-centre to the main direction of the outlook.
- The Site is a large-scale landform with simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The most scenic and eye-catching part of this view is to the west, where the mountainous skyline provides a focal point. The Proposed Development would be seen in relation to the relatively unremarkable landform of the Kilpatrick Hills, with the mountains (which are within LLTNP) remaining unaffected. The Proposed Development would not be seen in the context of LLTNP or the Loch Lomond NSA.
- The Site is separated from the viewpoint by the Clyde and by urban areas, ensuring visual and physical separation and preventing encroachment. This in turn ensures that the Proposed Development would be associated with the upland moorland rather than the urban areas that lie on either side of the Clyde.

- The Proposed Development would be seen in a limited part – approximately 11º - of the full open view up, down and across the Clyde, ensuring that the great majority would remain unaffected.

Significance of the Effect

5.10.219 The effect of the Proposed Development on this view would be major/moderate and **significant** due to a combination of the factors that lead to the medium magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.220 While there is theoretical visibility of several baseline wind farms from this viewpoint, as described above, these are discounted from the assessment. There is no theoretical visibility of application stage sites. The cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.221 A full assessment of night-time effects has not been carried out for this viewpoint as while it has been visited at night-time, night-time photomontages have not been produced. However, overall conclusions regarding night-time effects can be drawn from the site visit and the assessment of the five viewpoints for which night-time photomontages have been produced and full assessments carried out.

5.10.222 The site visit indicated that there is extensive visibility of baseline lighting in this view, including urban and residential lighting; street lighting on the road where the viewpoint is located; and lighting on the waterbody of the River Clyde and the northern bank of the river. Baseline lighting includes white, yellow, orange and red light sources and a number of moving or flashing lights, both on vehicles and navigational lights on the Clyde.

5.10.223 For road-users, the night-time effect at this viewpoint would be not significant in both the 2,000 cd and 200 cd scenarios due to the baseline lighting in the view and the moving nature of viewers. For residential viewers, it is likely that the night-time effect at this viewpoint would be **significant** in the 2,000 cd scenario as a result of the visibility of all of the Proposed Development lights; the elevation of the lights above the skyline; the red colour of the lights; and their flashing appearance. The effect would, however, be moderated by the considerable baseline lighting seen in the view, both around the viewpoint and on the north side of the Clyde, and the distance of the lights from the viewpoint (over 10 km), which ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. The effect arising in the 200 cd scenario is likely to be **not significant** due to the reduced light source.

5.10.224 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 750 – 75 cd lights and the 200 cd lights would be perceived as 75 – 7.5 cd lights. The effects would be **not significant** in both scenarios.

5.10.225 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 19: Conic Hill (visualisations on Figure 5.34)

Baseline and Sensitivity

5.10.226 This viewpoint is located at the top of Conic Hill, 361m AOD, several kilometres north-east of Balmaha. Conic Hill has a spectacular outlook across, up and down Loch Lomond, as well as across the wider landscape of western central Scotland. Ben Lomond (Viewpoint 29), Ben Bowie (Viewpoint 15), the Luss hills, including Beinn Dubh (Viewpoint 26), the Arrochar alps and the Campsie Fells are clearly visible around the view. Conic Hill marks the Highland Boundary Fault on the eastern side of Loch Lomond, aligning with Ben Bowie on the western side and the islands within the loch. This is clearly seen in the viewpoint photograph, which shows a straight line of landform across the loch, through the islands of Inchcailloch and Inchmurrin to Ben Bowie on the western side. To the south (left) of this line is the relatively low and uniform landform of the lowlands, including the Kilpatrick Hills while to the north of the Fault line is the more eye-catching and dramatic landform of the Luss hills, Arrochar alps and Ben Lomond.

5.10.227 The relatively settled and cultivated southern end of Loch Lomond is seen in this view around the base of the Kilpatrick Hills. The change in landscape character from the lowland Rolling Farmland LCT to the Rugged Moorland Hills LCT of the Kilpatrick Hills marks the approximate boundary between LLTNP and the Kilpatrick Hills LLA.

5.10.228 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as shown in the wireline views. Some of these sites are seen from beyond the radius of their own study areas, and they are discounted as they do not have potential to contribute to a significant cumulative effect. The other baseline sites - Corlic Hill (Inverclyde), Earlsburn, Earlsburn North and Shelloch - are also discounted from the assessment due to limited or very limited theoretical visibility and/or distance from the viewpoint.

5.10.229 This view has a high value. It is a well-known, clearly signposted walking destination that lies within and overlooks LLTNP and Loch Lomond NSA and overlooks Kilpatrick Hills LLA to the south, as well as other more distant designations. Parking is provided in Balmaha and the viewpoint is accessed by a well-marked path. The WHW (also a core path) runs nearby, and Conic Hill is a well-established diversion from this route. The view has notable scenic qualities and a strong sense of place. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.230 The ten turbines in the Proposed Development would be seen to the south of this viewpoint from a minimum of 11.5 km away, with all hubs visible, and would extend across around 9º of the view. Infrastructure would be screened by landform other than short sections of access tracks/hardstandings. Tall cranes and other activity, including borrow pit excavation, would theoretically be visible during construction. However, at over 11 km away, these elements of infrastructure would have a very limited influence on the view. The magnitude of change on this view would be **medium**, for the following reasons.

- The Proposed Development would be readily apparent at moderate proximity in an aspect of the view that is currently unaffected by large-scale human development.

- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The aspect of the view in which the Proposed Development would be seen has a horizontal nature, and the turbines, some seen at full height, would have vertical impact in this setting.

5.10.231 The factors that restrict the magnitude of change to a medium level are as follows.

- The Proposed Development would be seen in the very large-scale and simple setting of the Kilpatrick Hills, with uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The Proposed Development would not be seen in relation to the highly scenic and dramatic aspects of the view, primarily Loch Lomond north of the Highland Boundary Fault, Ben Lomond and the Luss hills but also more distant and eye-catching hills. These landmarks of the view would remain unaffected.
- The Proposed Development would, conversely, be seen in the less remarkable and simpler setting of the Kilpatrick Hills.
- Notwithstanding the horizontal nature of the landform and the resultant vertical impact of the turbines, as described above, the lower elevation of the Proposed Development in relation to the viewpoint reduces the perceived prominence of the turbines as they are not seen on an elevated skyline that rises above the viewpoint.
- The Proposed Development would affect a limited part – approximately 9º - of the full panoramic view from Conic Hill, ensuring that the great majority of the view, including its most scenic parts, would remain unaffected.

Significance of the Effect

5.10.232 The effect of the Proposed Development on this view would be major/moderate and **significant** due to a combination of the factors that lead to the medium magnitude of change on the view and the high sensitivity of the viewpoint.

Cumulative Effect

5.10.233 While there is theoretical visibility of baseline wind farms from this viewpoint, as described above, this is discounted from the assessment due to very limited influence that these sites will have on the view. There is also limited theoretical visibility of the application stage site at Earlsburn Extension from over 26 km away, which would not be readily apparent. The cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.234 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment at the viewpoint and from the night-time assessment of the viewpoints for which full assessments have been carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. There would be visibility of the ten Proposed Development lights with their flashing appearance, and the environment around the viewpoint is likely to be dark. However, the lighting would affect a very limited part of the 360º view and, importantly, is located to the south, in an aspect of the view that is likely to be characterised by baseline urban lighting, albeit of

different types than the Proposed Development lighting. This ensures that the spectacular skyline that is seen to the west and north-west of the viewpoint and would be discernible at dawn/dusk (particularly dusk, when the sun will be setting to the west) would remain unaffected by lighting. The distance of the lights from the viewpoint (over 11 km) also ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility.

5.10.235 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 750 cd lights and the 200 cd lights would be perceived as 210 – 75 cd lights. The effects in both scenarios would remain **not significant**.

5.10.236 A cumulative night-time assessment is not required at this viewpoint due to lack of/limited and distant visibility of relevant wind farm sites, and the night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 20: Waterbus (visualisations on Figure 5.35)

Baseline and Sensitivity

5.10.237 This viewpoint is at the centre of Loch Lomond, east of Luss and south of the island of Inchlonaig. This location is a route that is likely to be taken by a number of waterbus and cruise services as well as people in private boats, canoes and jet skis. Visibility from much of Loch Lomond is limited due to screening by the landform and woodland cover of islands and promontories, and this location is relatively rare in providing a clear and open outlook towards the Proposed Development.

5.10.238 It should be noted that this viewpoint photograph has been taken from a boat and is taken without a tripod, panoramic head and leveller. As it is not possible to take an accurate 360º view from a moving boat, this photograph covers one 90º sector of the view and therefore does not show the setting seen around other aspects of the view. The open water location of the viewpoint ensures that a view is gained in all directions, and while there is periodic screening by the islands, views of landmarks such as Ben Lomond, Conic Hill and the Luss hills are generally available. In the 90-degree aspect of the view towards the Proposed Development, the Campsie Fells (towards the left side of the view) form the most distinctive part of the skyline. Duncryne Hill, which is notable in other views from the north, is less apparent here as it does not rise above the skyline.

5.10.239 There is no visibility of cumulative wind farms in this view.

5.10.240 This view has a high value. The viewpoint lies within and overlooks LLTNP and the Loch Lomond NSA and has notable scenic qualities and a sense of place. The susceptibility to change at this viewpoint is high as people who gain the view would be on boats, partaking in outdoor recreation, and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.241 The ten turbines in the Proposed Development would be seen south-south-east of this viewpoint from a minimum of 13.1 km away, with all hubs visible, and would extend across around 8º of the view. Infrastructure would be screened by landform, although tall cranes

and other activity, including borrow pit excavation, would theoretically be visible during the construction phase. However, at over 13 km away, these elements of infrastructure would have a very limited influence on the view. The magnitude of change on this view would be **medium-low**, for the following reasons.

- The Proposed Development would be apparent at moderate proximity and would introduce a new influence of movement and contrasting colour and texture.
- The view across water can reduce the perceived distance of the Proposed Development from the viewpoint.
- The aspect of the view in which the Proposed Development is seen has a horizontal nature, and the turbines would have a notable vertical impact in this setting.

5.10.242 The factors that restrict the magnitude of change to a medium-low level are as follows.

- The Proposed Development would be seen in the relatively unremarkable and more uniform lowland part of the view, south of the Highland Boundary Fault, ensuring that the other aspects of the view, including landmark features around the setting to the loch, would not be affected by the turbines.
- The Kilpatrick Hills form a large-scale skyline with simple landform that can accommodate the turbines without uncomfortable scale comparisons.
- While the view across water can reduce the perceived distance of the Proposed Development from the viewpoint, it does ensure physical and visual separation, so that the Proposed Development is not perceived as encroaching on the viewpoint.
- The Proposed Development would affect a very small part - approximately 8º - of the open outlook that is gained from this viewpoint, so that the great majority of the view would remain unaffected, including its most scenic features. The distance (over 13 km) also ensures that the turbines would not be perceived as major features.
- The moving nature of viewers on the water ensures that this view would not be maintained for any length of time. This is particularly the case as the eye of the viewer will generally be drawn to the northern parts of the loch where the scenery is dramatic and eye-catching, and views to the south are unlikely to be specifically sought or sustained for long periods.

Significance of the Effect

5.10.243 The effect of the Proposed Development on this view would be moderate and **significant**, due to the factors that lead to the medium-low magnitude of change on the view and the high sensitivity of the viewpoint. A combination of a medium-low magnitude of change and high sensitivity can be assessed as significant or not significant; in this case, it is significant due to the vertical impact of the Proposed Development in a horizontal aspect of the view, where it would form a new feature.

Cumulative Effect

5.10.244 There is no visibility of cumulative wind farms in this view and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.245 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the assessment of the viewpoints for

which night-time photomontages have been undertaken and full assessments carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. There would be visibility of the ten Proposed Development lights with their flashing appearance, and the environment around the viewpoint is likely to be dark other than lighting on boats (including the boat in which the viewer is travelling). However, the lighting would be seen by moving viewers and would affect a very limited part of the open view from the water and, importantly, is located to the south, ensuring that the more distinctive skyline that is seen to the north, east and west, which would be discernible at dawn/dusk (particularly dusk, when the sun will be setting to the west) would remain unaffected by lighting. The distance of the lights from the viewpoint (over 13 km) ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility.

5.10.246 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 750 – 75 cd lights and the 200 cd lights would be perceived as 75 – 7.5 cd lights. The effects in both scenarios would remain **not significant**.

5.10.247 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites, and the night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 21: Bat a Charchel (visualisations on Figure 5.36)

Baseline and Sensitivity

5.10.248 This viewpoint is located on the minor road that forms the route of the Rob Roy Way (a core path) and NCR 7 approximately 3.4 km to the north of Drymen. This view has an upland character, located in the Plateau Moor and Forest - Loch Lomond & the Trossachs LCT and overlooking other moorland and hill LCTs. Whilst the viewpoint is on the eastern edge of LLTNP, the loch and its characteristic setting are not visible due to the intervening landform of Moor Park. Other features are apparent, however; Ben Venue provides a focal point to the north; the uppermost part of Conic Hill is seen to the west; the Campsie Fells to the south-east, including the distinctive skyline of Dumgoyne Hill (Viewpoint 16); and the domed landform of Duncolm forms a landmark to the south. Large-scale infrastructure is clearly apparent in the view, with a major transmission line running across the view and the mast on Bat a Charchel seen to the north-east. In the view, all areas to the east of the road are outwith LLTNP while areas to the west are within LLTNP.

5.10.249 There is theoretical visibility of several baseline wind farms this viewpoint, as shown in the wireline views. However, these sites are seen from beyond the radius of their own study areas, and are discounted from the assessment.

5.10.250 This view has a medium-high value. It is not a marked viewpoint, facilities are not provided for the enjoyment of the view, and it does not have notable scenic qualities. It does, however, lie within and, to the west, overlooks LLTNP, overlooks the Kilpatrick Hills LLA and is on the Rob Roy Way and NCR 7. The susceptibility to change at this viewpoint is high as people who gain the view would include walkers or cyclists using the signposted recreational routes. The combination of the high susceptibility to change of the view and its medium-high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.251 The ten turbines in the Proposed Development would be seen to the south-west of this viewpoint from a minimum of 12.6 km away, with all hubs visible, and would extend across around 8º of the view. Infrastructure would be screened by landform other than several short sections of access tracks/hardstandings. Tall cranes and other construction activity would theoretically be visible during the construction phase. However, at over 12 km away, these elements of infrastructure would have a very limited influence on the view. The magnitude of change on this view would be **medium-low**, for the following reasons.

- The Proposed Development would be apparent at moderate proximity and would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The aspect of the view in which the Proposed Development would be seen has a horizontal nature and the turbines, some seen at full height, would have a vertical impact in this setting.
- While the Proposed Development would be separated from the viewpoint by several different LCTs, this is not apparent in the view due to the intervening drop in landform and screening by forestry. The LCT within which the viewpoint lies - Plateau Moor and Forest – has a number of similarities to the Rugged Moorland Hills LCT that covers the Site and in the absence of an obvious break between the LCTs, this can lead to a lack of separation and resulting perception of encroachment towards the viewpoint.
- For southbound road-users, including cyclists, the Proposed Development would be seen in the line of travel.

5.10.252 The factors that restrict the magnitude of change to a medium-low level are as follows.

- The Proposed Development would be seen in the context of a major transmission line and would thus be seen a part of the view that is already affected by large-scale development. The view towards the Site is also characterised by coniferous forestry plantation.
- The Site is a large-scale landform with very simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The Proposed Development would not be seen in relation to the more scenic and eye-catching parts of the view, such as the Campsie Fells, Duncolm or Ben Venue, but in the less remarkable context of the Kilpatrick Hills.
- The Proposed Development would be seen in a very limited part – approximately 8º - of the full open view from this elevated location, ensuring that the great majority of the view, including its most scenic parts, would remain unaffected.

Significance of the Effect

5.10.253 The effect of the Proposed Development on this view would be moderate and **significant** due to a combination of the factors that lead to the medium-low magnitude of change on the view and the high sensitivity of the viewpoint. A combination of a medium-low magnitude of change and a high sensitivity can be assessed as significant or not significant; in this case, it is considered to be significant due to the vertical impact of the turbines in the horizontal landscape and the visibility of the Proposed Development in the direct line of travel of southbound road-users.

Cumulative Assessment

5.10.254 While there is theoretical visibility of several baseline wind farms from this viewpoint, as described above, these are discounted from the assessment as they are seen from outwith their own study areas. There is no theoretical visibility of application stage sites. There are therefore no relevant cumulative wind farm sites and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-Time Effect

5.10.255 A full assessment of night-time effects has not been carried out for this viewpoint as while it has been visited at night-time, night-time photomontages have not been produced. However, overall conclusions regarding night-time effects can be drawn from the site visit and the assessment of the five viewpoints for which night-time photomontages have been produced and full assessments carried out.

5.10.256 The site visit indicated that baseline lighting is limited, with just a few residential lights visible.

5.10.257 It is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. There would be visibility of the ten Proposed Development lights with their flashing appearance, and the environment around the viewpoint is dark. However, the lighting would be seen by moving viewers and would affect a very limited part of the open view, ensuring that the distinctive skyline of the Campsie Fells, which is discernible at dawn/dusk, would remain unaffected by lighting. The distance of the lights from the viewpoint (over 12 km) also ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility.

5.10.258 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 750 cd lights and the 200 cd lights would be perceived as 210 – 75 cd lights. The effects in both scenarios would remain **not significant**.

5.10.259 A cumulative night-time assessment is not required at this viewpoint due to lack of relevant wind farm sites, and the night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 22: Balfron Cemetery (visualisations on Figure 5.37)

Baseline and Sensitivity

5.10.260 This viewpoint is located in the Cemetery on the north-western edge of Balfron. The ZTV shows theoretical visibility from Balfron, but the majority of publicly accessible views are screened or filtered to a large degree by buildings and vegetation, and this location gains an unusual open view. The majority of the view is enclosed by trees and woodland, with the only open aspect being a south-westwards outlook towards the Kilpatrick Hills, which form a backdrop to foreground vegetation. Meikle White Hill can be seen on the skyline to the left of the Proposed Development, while Auchincarroch Hill is to the right of the Proposed Development. The viewpoint lies within Lowland River Valleys – Central LCT, on the northern valley side of the Endrick Water, the wooded course of which can be seen

running across the middle-ground of the view. Beyond this, the river valley merges into Lowland Hill Fringes LCT, which in turn rises up into the Rugged Moorland Hills LCT.

5.10.261 There is theoretical visibility of the baseline wind farm at Corlic Hill (Inverclyde) from this viewpoint. This is, however, negligible, gained from over 29 km away and indiscernible. Baseline wind farms are therefore discounted from the assessment.

5.10.262 This view has a medium value. It is not a marked viewpoint and facilities are not provided for the enjoyment of the view. It does, however, overlook Kilpatrick Hills LLA, and is located at a place where people gather and spend time. It also has some scenic qualities. The susceptibility to change at this viewpoint is high as people who gain the view would include visitors to the cemetery who have a focus on their surroundings. The combination of the high susceptibility to change of the view and its medium value results in a **medium-high** sensitivity for this viewpoint.

Magnitude of Change

5.10.263 The ten turbines in the Proposed Development would be seen to the south-west of this viewpoint from a minimum of 13.3 km away, with all hubs visible, and would extend across around 8º of the view. Infrastructure would be screened by landform other than two small areas of access track/hardstanding. Tall cranes and other construction activity would theoretically be visible during the construction phase. However, at over 13 km away, these elements of infrastructure would have a very limited influence on the view. The magnitude of change on this view would be **medium**, for the following reasons.

- The Proposed Development would be readily apparent at moderate proximity and would be seen across the only open aspect of the view, towards which the eye of the view will be drawn.
- This aspect of the view is currently unaffected by large-scale human development, and the Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The aspect of the view in which the Proposed Development would be seen has a horizontal nature, and the turbines, some seen at full height, would have a vertical impact in this setting.

5.10.264 The factors that restrict the magnitude of change to a medium level are as follows.

- The Site is a large-scale landform with very simple, uniform landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- The Proposed Development would be seen on a part of the skyline that is enclosed at each end by higher ground. This would increase the cohesion of the turbine grouping and reduce the perceived scale of the turbines.
- The Site is separated from the viewpoint by the landform of the Endrick valley and there is a notable change in landscape character from the Lowland River Valleys – Central LCT within which the viewpoint lies, to the Rugged Moorland Hills LCT within which the Site lies. This break creates visual/physical separation between the Proposed Development and the viewpoint, preventing encroachment and ensuring that the Proposed Development is associated with the upland moorland rather than the valley side landscape that provides the setting to the viewpoint.
- The Proposed Development would affect a very limited part – approximately 8º - of the view from this location and would be seen from approximately 13.3 km away, at which distance the turbines would not be major features in the view.

Significance of the Effect

5.10.265 The effect of the Proposed Development on this view would be major/moderate and **significant** due to the medium-high sensitivity of the view and medium magnitude of change on it.

Cumulative Effect

5.10.266 While there is theoretical visibility of one baseline wind farm from this viewpoint, as described above, this is discounted from the assessment due to negligible visibility. There is no theoretical visibility of application stage sites. There are therefore no relevant cumulative wind farm sites and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.267 The sensitivity of this view would reduce to a **medium** level at night-time; while the value would remain medium, the susceptibility would reduce to a medium level as people are less likely to visit the cemetery during darkness hours and those who do are unlikely to be focussed on their surroundings. However, there is little baseline lighting and this contributes to the susceptibility of the viewer.

5.10.268 Lighting on ten turbines would be visible from a minimum of 13.3 km away at this viewpoint and would introduce a new influence of red lights into the night-time view. The position of the lights on the unlit skyline, across the open part of the view, would increase their effect on the view, as would their flashing appearance. The magnitude of change arising from the lighting is moderated by the containment of the lighting within approximately 8º of the view; the distance of the lights from the viewpoint (over 13 km), which ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility; and the generally balanced level of the lights above the skyline.

5.10.269 These factors result in a **medium-low** magnitude of change in the worst-case scenario of 2,000 cd lighting while in the scenario of 200 cd, the magnitude of change would reduce to a **low** level due to the reduced light source.

5.10.270 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 750 – 75 cd lights and the 200 cd lights would be perceived as 75 – 7.5 cd lights. Should this mitigation be achieved, the magnitude of change arising from the 200 cd light would reduce to a **low** level while the magnitude of change arising from the 2,000 cd light would reduce to a **low-negligible** level.

5.10.271 The night-time effect of turbine lighting on this viewpoint would be moderate/minor and **not significant** in both the 2,000 cd and 200 cd scenarios due to the factors considered in the medium sensitivity of the viewpoint and the medium-low or low night-time magnitude of change. If mitigation relating to changes in light intensity due to vertical elevation angle from the turbine light is achieved, the effect in both scenarios would also be **not significant**.

5.10.272 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites, and the night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 23: Luss Campsite (visualisations on Figure 5.38)

Baseline and Sensitivity

5.10.273 This viewpoint is located on the shore of Loch Lomond, at Luss campsite. Luss is a key location within LLTNP with toilets, extensive car parking, food and accommodation facilities, and waterbus and loch cruises. Luss is also the main starting point for walks in the Luss hills, including Beinn Dubh (Viewpoint 26). The settlement of Luss is based around a small bay on the western shore of the loch, and a combination of landform and woodland around this bay result in very limited or negligible visibility of the Proposed Development from the majority of the village. The campsite lies at the northern end of the village and the viewpoint is located at the southern end of the campsite, where the shoreline faces south-south-east. There are no camping pitches in this area, with the shoreline pitches being orientated eastwards across the loch, with views towards Ben Lomond, Conic Hill, the islands, and other scenic features. This outlook would therefore not be gained directly by campers from their pitches, but by people who are walking around the shoreline within the campsite.

5.10.274 The viewpoint photograph clearly shows how the view across and down the loch is partially obscured and fragmented by the islands, headlands and woodland. Conic Hill (Viewpoint 19) can be seen to the east.

5.10.275 There is no visibility of cumulative wind farms in this view.

5.10.276 This view has a high value. The viewpoint lies within and overlook LLTNP and the Loch Lomond NSA, has notable scenic qualities and there are a number of visitor facilities nearby. The susceptibility to change at this viewpoint is high as people who gain the view would be walking around or sitting at the shoreline of the loch within the campsite and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.277 The ten turbines in the Proposed Development would theoretically be seen to the south-east of this viewpoint from a minimum of 14.6 km away, with all hubs theoretically visible, and would extend across just under 8º of the view. In reality, parts of turbines are screened by woodland in the middle-ground of the view, as shown in the photomontage view, and actual visibility would be limited to eight turbines. Infrastructure would be screened by landform other than several short sections of access tracks/hardstandings, which are likely to be screened by woodland. Tall cranes and other activity would theoretically be visible during the construction phase. However, at over 14 km away, these elements of infrastructure would not be readily discernible. The magnitude of change on this view would be **medium-low** for the following reasons.

- The Proposed Development would provide an influence in an aspect of the view that is currently unaffected by large-scale human development, introducing movement and contrasting colour and texture into the setting in which it is seen.

- The view of the Proposed Development across water can reduce the perceived distance from the viewpoint.

5.10.278 The factors that restrict the magnitude of change to a medium-low level are as follows.

- Screening of the Proposed Development by landform and woodland would reduce its influence on the view.
- The Proposed Development would be seen peripherally to key views across the loch from this point, closer to the shoreline and in a more enclosed, less eye-catching aspect of the view. This ensures that the eye of the viewer would not readily be drawn to the aspect of the view where the Proposed Development lies.
- The most visible turbines would be seen on the large-scale, simple and unenclosed skyline of the Kilpatrick Hills, which can accommodate the turbines without uncomfortable scale comparisons.
- The landmark feature of Conic Hill would remain unaffected by the Proposed Development.
- The rising landform/woodland that encloses each side of the Proposed Development would reduce the perceived scale of the turbines and their vertical impact.
- The Proposed Development would affect a very small part – less than 8º - of the outlook that is gained from this viewpoint, so that the great majority of the view would remain unaffected. Seen from over 14 km away, the turbines would constitute minor features in the view.

Significance of the Effect

5.10.279 The effect of the Proposed Development on this view would be moderate and **not significant** due to the factors that lead to the medium-low magnitude of change despite the high sensitivity of the viewpoint. A combination of a medium-low magnitude of change and high sensitivity can be significant or not significant; in this case, it is not significant due primarily to limited visibility of the Proposed Development and its peripheral location in relation to views out across Loch Lomond.

Cumulative Effect

5.10.280 There is no visibility of cumulative wind farms in this view and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.281 The sensitivity of this view would remain **high** at night-time; while the details of the landscape setting will not be apparent, the skyline around the loch and of the islands is likely to be discernible, and the lighting would be seen in this context. The shoreline of the campsite is a place where people may gather at dawn/dusk, and the lack of notable baseline lighting in this aspect of the view also contributes to the susceptibility of the viewer.

5.10.282 Lighting on eight turbines (two nacelles would be screened by woodland) would be visible from a minimum of 14.6 km away at this viewpoint and would introduce a new influence of red lights into the night-time view. The position of the lights on the undeveloped skyline would increase their effect on the view, as would their flashing appearance. The magnitude of change arising from the lighting is moderated by the containment of the lighting within less than 8º of the view; the distance of the lights from the viewpoint (over

14 km), which ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility; the reduced number of visible turbines; and the containment of the Proposed Development on both sides by rising landform, which reduces the perceived elevation of the lights above the skyline. It is also relevant that the lighting would be seen in association with activity at Luss, which is a popular location for evening gathering, ensuring that localised lights on the beach are commonplace in this view, and this would reduce the level of change. There are also a number of lights close by to the north and west of the viewpoint, including campsite and hotel lights, which do not lie within the 53.5º aspect of the photomontage view. By contrast, the very extensive undeveloped aspects of the view that lie to the east and north-east of the viewpoint, where there is negligible discernible baseline lighting, would remain unaffected by the Proposed Development.

5.10.283 These factors result in a **medium-low** magnitude of change in the 2,000 cd scenario while in the scenario of 200 cd, the magnitude of change would reduce to a **low** level due to the reduced light source.

5.10.284 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 750 – 75 cd lights and the 200 cd lights would be perceived as 75 – 7.5 cd lights. Should this mitigation be achieved, the magnitude of change arising from the 200 cd light would reduce to a **low** level while the magnitude of change arising from the 2,000 cd light would reduce to a **low-negligible** level.

5.10.285 The night-time effect of turbine lighting on this viewpoint would be moderate and **not significant** in the 2,000 cd scenario due to the factors considered in the medium-low night-time magnitude of change despite the high sensitivity of the viewpoint. A combination of a medium-low magnitude of change and high sensitivity can result in an effect that is significant or not significant. In this case, the effect is assessed to be not significant due to the very small part of the view that would be affected by the Proposed Development lighting, its visibility in the same aspect of the view as the developed shoreline at Luss, and the retention of the undeveloped eastern and north-eastern aspects of the view without lighting. In the 200 cd scenario, the effect would be moderate/ minor and **not significant** due to the reduced light source. If mitigation relating to changes in light intensity due to vertical elevation angle from the turbine light is achieved, the effect in both scenarios would remain **not significant**.

5.10.286 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites, and the night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 24: Sallochy (visualisations on Figure 5.39)

Baseline and Sensitivity

5.10.287 This viewpoint is located on the shore of Loch Lomond at Sallochy, approximately 5 km north of Balmaha. There is no formal access to this location and it is reached via an informal path from the WHW, which runs nearby. A similar view would be gained by people partaking in watersports on the loch. Strathcashell Point extends out into the loch in the view towards the Proposed Development and Inchlonaig Island is seen to the right of the Proposed Development. The Luss hills (including Beinn Dubh, Viewpoint 26)

provide a notable and eye-catching landform to the right of Inchlonaig, with the settlement of Luss also visible at the foot of Glen Luss.

5.10.288 There is no visibility of cumulative wind farms in this view.

5.10.289 This view has a high value. The viewpoint lies within and overlooks LLTNP and the Loch Lomond NSA, overlooks the Kilpatrick Hills LLA, has notable scenic qualities, and is located close to the WHW. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers on the WHW or people on the loch, who are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.290 The ten turbines in the Proposed Development would be seen to the south-east of this viewpoint from a minimum of 15 km away, with all hubs visible, and would extend across around 7º of the view. Infrastructure would be screened by landform other than several short sections of access tracks/hardstandings. Tall cranes and other activity would theoretically be visible during construction. However, at over 15 km away, these elements of infrastructure would be barely discernible. The magnitude of change on this view would be **medium-low** for the following reasons.

- The Proposed Development would provide a moderate influence in an aspect of the view that is currently unaffected by large-scale human development.
- The aspect of the view in which the Proposed Development is seen has a horizontal nature, and the turbines, some seen at full height, would have a vertical impact in this setting.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The view of the Proposed Development across water can reduce the perceived distance from the viewpoint.
- This open part of this outlook covers approximately 180º, with the remaining 180º being screened by vegetation, and while the Luss hills provide a scenic aspect of the view, the full dramatic setting of Loch Lomond is not as apparent as it is in many views from and across the loch. The restriction of the open part of the view to 180º and the lack of visibility of the most dramatic landform features would increase the perceived influence of the Proposed Development.

5.10.291 The factors that restrict the magnitude of change to a medium-low level are as follows.

- The Proposed Development would be seen in the relatively unremarkable and more uniform lowland part of the view, ensuring that the northern part of the view, including the landmark features of the Luss hills, would remain unaffected.
- The Kilpatrick Hills form a large-scale skyline with simple, unenclosed landscape patterns that can accommodate the turbines without uncomfortable scale comparisons.
- While the view across water can reduce the perceived distance of the Proposed Development from the viewpoint, it does ensure physical/visual separation, so that the Proposed Development is not perceived as encroaching towards the viewpoint.
- The Proposed Development would affect a very small part – approximately 7º - of the outlook that is gained from this viewpoint, so that the great majority of the view would remain unaffected.

- The containment of the Proposed Development on a single, uniform skyline landform is beneficial as it creates a cohesive grouping of turbines. The turbines are designed to form a balanced, compact group in this view.

Significance of the Effect

5.10.292 The effect of the Proposed Development on this view would be moderate and **significant** due to a combination of the factors that lead to the medium-low magnitude of change and the high sensitivity of the viewpoint. A combination of a medium-low magnitude of change and high sensitivity can be significant or not significant; in this case, it is considered to be significant due primarily to the relatively enclosed view gained from this location and the appearance of the Proposed Development in the open aspect of the outlook.

Cumulative Effect

5.10.293 There is no visibility of cumulative wind farms in this view and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.294 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the assessment of the viewpoints for which night-time photomontages have been undertaken and full assessments carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. There would be visibility of the ten Proposed Development lights with their flashing appearance, and the environment around the viewpoint is likely to be dark. However, the lighting would affect a very limited part of the view and, importantly, is located to the south, ensuring that the more distinctive skyline that is seen in other aspects of the outlook, which would be discernible at dawn/dusk (particularly dusk, when the sun will be setting to the west) would remain unaffected by lighting. The distance of the lights from the viewpoint (15 km) also ensures that if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility.

5.10.295 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 750 – 75 cd lights and the 200 cd lights would be perceived as 75 – 7.5 cd lights. The effects in both scenarios would remain **not significant**.

5.10.296 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites, and the night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 25: Lyle Hill, Greenock (visualisations on Figure 5.40)

Baseline and Sensitivity

5.10.297 This elevated viewpoint is located at the Lyle Hill trig point on Greenock golf course. It is included to represent views gained by people visiting the viewpoint and/or playing golf, and a similar outlook is likely to be gained by some residents of the most elevated, east-facing parts of Greenock. It should be noted that the Proposed Development is not visible

from the nearby signposted and promoted 'Lyle Hill' viewpoint, which is focussed on north and west-facing views. This viewpoint is located at a key point on the Firth of Clyde, with long views eastwards up the Firth, looking across Port Glasgow and Dumbarton; westwards towards Cowal (including Dunoon, Viewpoint 30); and northwards up Loch Long and Gare Loch. North of the viewpoint is the Rosneath peninsula, with the Arrochar alps and Cowal Hills rising beyond. Built-up areas including Gourock, Port Glasgow, Helensburgh, Cardross and Dumbarton can be seen along the edges of the Clyde.

5.10.298 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as shown in the wireline views. The majority of these sites are seen from beyond the radius of their own study areas, and these wind farms are discounted as they do not have potential to contribute to a significant cumulative effect. The majority of other baseline sites are also unlikely to contribute to significant cumulative effects, including Earlsburn, Earlsburn North, Shelloch, Middleton, Whitelee and Neilston, all of which have limited or very limited theoretical visibility and are seen from a considerable distance away. These sites are all discounted from the assessment due to their lack of/very limited influence on the view. Corlic Hill (Inverclyde) is 5.4 km away and is considered in the assessment.

5.10.299 This view has a high value. It is marked on mapping as a scenic viewpoint, facilities such as parking and a viewpoint indicator are provided for the enjoyment of the view, and while it does not lie within a scenic designation it is a scenic outlook that overlooks LLTNP and the Kilpatrick Hills LLA. The susceptibility to change at this viewpoint is high as it is included to represent views gained by some local residents in Greenock, who have an inherent high susceptibility, as well as people visiting the viewpoint or playing golf. The sensitivity of the view is **high** due to the residential nature of some viewers.

Magnitude of Change

5.10.300 The ten turbines in the Proposed Development would be seen to the east of this viewpoint from a minimum of 17.2 km away and would extend across around 7º of the view. All of the hubs are theoretically visible but in reality one hub is unlikely to be seen. Parts of five towers are screened by landform. Elements of infrastructure would theoretically be visible but are unlikely to be discernible at this distance, although tall cranes may be visible during the construction phase. The magnitude of change on this view would be **medium-low**, for the following reasons.

- The Proposed Development would provide a moderate influence in an aspect of the view that is currently unaffected by large-scale human development.
- The aspect of the view in which the Proposed Development is seen has a broadly horizontal nature, and the turbines, some seen at full height, would have a vertical impact in this setting.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The view of the Proposed Development across water can reduce the perceived distance from the viewpoint.

5.10.301 The factors that restrict the magnitude of change to a medium-low level are as follows.

- The Kilpatrick Hills form a large-scale landform that can accommodate the turbines without uncomfortable scale comparisons. This is particularly notable in relation to the various other landscapes that are seen around the view; the mountains have a

greater sensitivity to the Proposed Development due to their variously small-scale, intricate, complex, awe-inspiring and rugged characteristics.

- The Proposed Development would be seen in the relatively unremarkable and more uniform lowland part of the view, ensuring that the more dramatic and mountainous northern and western parts of the view would remain unaffected.
- The elevation of the Proposed Development in relation to the viewpoint reduces the perceived prominence of the turbines as they are not seen on a skyline that rises notably above the viewpoint.
- The Proposed Development would be seen in an aspect of the view that is characterised by large-scale development (ship building cranes and containers) in Greenock and would not introduce a new characteristic of such development.
- While views across water can reduce the perceived distance between the viewpoint and the Proposed Development, the intervening water also provides visual and physical separation, so that the Proposed Development is not perceived as encroaching towards the viewpoint.
- The Proposed Development would affect a very limited part – approximately 7º - of the full open view from this hilltop and would be seen from 17.2 km away, ensuring that the great majority of the view would remain unaffected.
- The Proposed Development is seen in a dip in the landform, which would reduce the perceived scale of the turbines.

Significance of the Effect

5.10.302 The effect of the Proposed Development on this view would be moderate and **not significant** due to the factors that lead to the medium-low magnitude of change on the view despite the high sensitivity of the viewpoint. A medium-low magnitude of change and high sensitivity can be assessed as significant or not significant; in this case, the effect is considered to be not significant due largely to the very small part of the full view that would be affected by the Proposed Development and the location of the Proposed Development in a relatively unremarkable and more developed aspect of the view, whereas the eye-catching mountainous aspects would remain unaffected.

Cumulative Effect

5.10.303 While there is theoretical visibility of several operational, under construction and consented wind farms from this viewpoint, as described above, the great majority of these are discounted from the assessment as they are seen from outwith their own study areas. Corlic Hill (Inverclyde) wind farm is, however, included in the assessment. There is no theoretical visibility of application stage wind farms. One scenario is therefore considered in the cumulative assessment; the addition of the Proposed Development to the operational site at Corlic Hill (Inverclyde).

5.10.304 In the operational cumulative scenario, the addition of the Proposed Development to Corlic Hill (Inverclyde) would have a **low** cumulative magnitude of change due to the limited visibility of the operational wind farm, which is partly screened by landform, particularly bearing in mind the modest height of the turbines (110 m to tip) and the very small proportion of the view that is occupied by it; the not significant effect of the Proposed Development itself; the fact that only one operational wind farm would contribute to the cumulative effect; and the similar landscape setting of the Proposed Development and the cumulative wind farm within Rugged Moorland Hills LCT. The cumulative effect in the scenario of operational wind farms would be **not significant** due to a combination of the

factors that lead to the low cumulative magnitude of change despite the high sensitivity of the viewpoint. No other cumulative scenarios are relevant at this viewpoint.

Night-time Effect

5.10.305 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment at the viewpoint and from the night-time assessment of the viewpoints for which full assessments have been carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. While there would be visibility of the ten Proposed Development lights above the skyline, the distance of the lights from the viewpoint (over 17 km) ensures that visibility of either lighting scenario would be limited, and if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. Moreover, the aspect of the view in which the lighting would be seen is likely to have baseline lighting of various types and it would affect a very limited part of the 360º view.

5.10.306 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 750 cd lights and the 200 cd lights would be perceived as 210 – 75 cd lights. The effects in both scenarios would remain **not significant**.

5.10.307 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites and the very limited effects arising from the Proposed Development. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 26: Beinn Dubh (visualisations on Figure 5.41)

Baseline and Sensitivity

5.10.308 This viewpoint is located at the summit of Beinn Dubh, 642m AOD, in the Luss hills. Beinn Dubh is on the Beinn Dubh-Glen Striddle horseshoe walk (also a core path), which starts and finishes in Luss and gains a spectacular panoramic outlook, particularly to the north and north-west where the mountainous landscape extends around the head of Loch Lomond. The nature of the landform and its proximity to Loch Lomond ensure that only the northern and southern ends of the loch are seen, with the southern end characterised by the built-up area of the Vale of Leven settlement. Ben Lomond (Viewpoint 29) and Conic Hill (Viewpoint 19) are clearly visible to the east of the viewpoint.

5.10.309 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as shown in the wireline views. Many of these sites are seen from beyond the radius of their own study areas, and they are discounted from the assessment. The other baseline sites will also not contribute to significant cumulative effects; Earlsburn North and Shelloch both have limited or very limited theoretical visibility from over 33 km away, while Corlic Hill (Inverclyde) wind farm has limited theoretical visibility from 22.8 km away and has a very limited effect on the view, being contained below the skyline. The baseline sites are discounted from the assessment due to their lack of or very limited influence on the view.

5.10.310 This view has a high value. It is a popular walking destination that lies within LLTNP, on the edge of the Loch Lomond NSA, and overlooks both of these designated areas.

Parking is provided in Luss and the viewpoint is accessed by a core path. The view also has notable scenic qualities and a strong sense of place. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.311 The ten turbines in the Proposed Development would be seen to the south-east of this viewpoint from a minimum of 17.6 km away, with all hubs visible, and would extend across around 6º of the view. Elements of infrastructure would theoretically be visible but are unlikely to be discernible at this distance, although tall cranes may be visible during the construction phase. The magnitude of change on this view would be **medium-low**, for the following reasons.

- The Proposed Development would provide a moderate influence in an aspect of the view that is currently unaffected by large-scale human development.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.

5.10.312 The factors that restrict the magnitude of change to a medium-low level are as follows.

- The Proposed Development would not be seen in the direct context of the most highly scenic and dramatic aspects of the view, which are the mountainous areas around Loch Lomond, including Ben Lomond. These landmarks of the view would remain unaffected. Conversely, the Proposed Development would be seen in the context of the most developed part of the setting to Loch Lomond.
- The Kilpatrick Hills is a relatively unremarkable large-scale, upland landscape that can accommodate the turbines without uncomfortable scale comparisons. This is particularly notable in relation to the various other landscapes that are seen around the view; both the lower, more developed slopes and the eye-catching mountains would have a greater sensitivity to the Proposed Development due to their variously small-scale, intricate, complex, awe-inspiring and rugged characteristics.
- The Proposed Development would affect a very limited part – approximately 6º - of the outlook from Beinn Dubh and would be seen from over 17 km away, ensuring that the great majority of the 360º view would remain unaffected.
- The lower elevation of the Proposed Development in relation to the viewpoint reduces the perceived prominence of the turbines as they are not seen on an elevated skyline that rises above the viewpoint.

Significance of the Effect

5.10.313 The effect of the Proposed Development on this view would be moderate and **not significant** due to the factors that lead to the medium-low magnitude of change on the view despite the high sensitivity of the viewpoint. A combination of a medium-low magnitude of change and high sensitivity can be significant or not significant; in this case, the effect is considered to be not significant due largely to the very small part of the full view that would be affected by the Proposed Development and the location of the Proposed Development in a relatively unremarkable and more developed aspect of the view, whereas the eye-catching mountainous aspects will remain unaffected.

Cumulative Effect

5.10.314 While there is theoretical visibility of baseline wind farms from this viewpoint, as described above, these are discounted from the assessment due to the theoretical visibility of the sites from beyond their own study areas, or the limited influence that cumulative sites will have on the view. There is some theoretical visibility of the application stage site at Earlsburn Extension from over 35 km away, which would not be clearly discernible. There are therefore no relevant cumulative wind farm sites and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.315 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment at the viewpoint and from the night-time assessment of the viewpoints for which full assessments have been carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. While there would be visibility of the ten Proposed Development lights below the skyline, the distance of the lights from the viewpoint (over 17 km) ensures that visibility of either lighting scenario would be limited, and if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. Moreover, the aspect of the view in which the lighting would be seen is likely to have baseline lighting of various types, while the spectacular skyline around other aspects of the outlook would remain unaffected.

5.10.316 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 775 cd lights and the 200 cd lights would be perceived as 210 – 77.5 cd lights. The effects in both scenarios would remain **not significant**.

5.10.317 A cumulative night-time assessment is not required at this viewpoint due to lack of/limited and distant visibility of relevant wind farm sites and the very limited effects arising from the Proposed Development. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 27: Inverbeg (visualisations on Figure 5.42)

Baseline and Sensitivity

5.10.318 This viewpoint is located close to an off-road section of the West Loch Lomond cycle path at Inverbeg. While a core path is identified near Inverbeg jetty in the LLTNPA core paths plan (2010), there is no evidence of this on the ground and the route is blocked off with fencing and ‘private’ signage. The core paths plan is currently under review, but information on how the review may affect the identification of this path is not available on LLTNPA’s website. This location near the cycle path has therefore been used instead. This view is a scenic southwards outlook down Loch Lomond, channelled by the enclosing, wooded landform of the northern part of the loch. The peak of Ben Lomond can be seen approximately 5 km away on the east side of the loch and is a notable focal point in this view, to the north-east of the viewpoint. Conic Hill is also visible, to the south-east. The view towards the southern end of the loch is overlaid by several islands.

5.10.319 There is no visibility of cumulative wind farms in this view.

5.10.320 This view has a medium-high value. It is not marked on mapping as a scenic viewpoint and specific facilities such as parking are not provided for the enjoyment of the view. The view is, however, close to a cycle route and lies within and overlooks LLTNP and the Loch Lomond NSA as well as the Kilpatrick Hills LLA. The susceptibility to change at this viewpoint is high as people who gain the view would be cyclists or walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its medium-high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.321 The ten turbines in the Proposed Development would be seen with all hubs visible to the south-east of this viewpoint from a minimum of 19.2 km away and would extend across approximately 6º of the view. Elements of infrastructure would theoretically be visible but are unlikely to be discernible at this distance, although tall cranes may be visible during the construction phase. The magnitude of change on this view would be **medium-low**, for the following reasons.

- The Proposed Development would provide an apparent but not prominent influence in an aspect of the view that is unaffected by large-scale development.
- Views towards the Proposed Development would be channelled by the landform of the loch sides.
- The aspect of the view in which the Proposed Development is seen has a horizontal nature, and the turbines, some seen at full height, would have a vertical impact in this setting.
- The Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The view of the Proposed Development across water can reduce the perceived distance from the viewpoint.

5.10.322 The factors that restrict the magnitude of change to a medium-low level are as follows.

- The Kilpatrick Hills is a large-scale, simple and horizontal landscape that can accommodate the turbines without uncomfortable scale comparisons.
- Rising landform on each side of the Proposed Development would reduce the vertical impact of the turbines.
- The Proposed Development would affect a very limited part – less than 6º - of the view and would be seen from 19.2 km away, ensuring that the turbines would appear as minor features.
- The Proposed Development would be seen in the relatively unremarkable and more uniform lowland part of the view, ensuring that the landmark features of Ben Lomond and, to a lesser degree, Conic Hill, would not be affected by the turbines.
- The layering of the islands provides separation between the Proposed Development and the viewpoint.

Significance of the Effect

5.10.323 The effect of the Proposed Development on this view would be moderate and **not significant** due to the factors that lead to the medium-low magnitude of change on the view despite the high sensitivity of the viewpoint. A combination of a medium-low

magnitude of change and high sensitivity can be significant or not significant; in this case, the effect is considered to be not significant, due largely to the location of the Proposed Development in a relatively unremarkable and large-scale, simple aspect of the view, its distance from the viewpoint, and the very small part of the view that will be affected by the turbines.

Cumulative Effect

5.10.324 There is no visibility of cumulative wind farms in this view and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.325 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment at the viewpoint and from the night-time assessment of the viewpoints for which full assessments have been carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. While there would be theoretical visibility of the ten Proposed Development lights on the skyline, the distance of the lights from the viewpoint (over 19 km) ensures that visibility of either lighting scenario would be limited, and if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. Moreover, the majority of the view around the loch would remain unaffected.

5.10.326 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 750 – 75 cd lights and the 200 cd lights would be perceived as 75 – 7.5 cd lights. The effects in both scenarios would remain **not significant**.

5.10.327 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites, and the night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 28: Misty Law (visualisations on Figure 5.43)

Baseline and Sensitivity

5.10.328 This elevated viewpoint is located at the high point of Misty Law, which is located within an extensive area of Rugged Moorland Hills LCT; the same LCT that covers the Site. It represents views gained by people walking up the hill and nearby areas in Clyde Muirshiel Regional Park. The elevation of this viewpoint ensures that long, open views are gained in all directions, with focal points of hills including the Campsie Fells (including Dumgoyne Hill, Viewpoint 16), Ben Lomond (Viewpoint 29), Ben Venue (Viewpoint 31), Ben Ledi (Viewpoint 33), the Arrochar alps, and, notably, the Arran Hills. Moorland stretches extensively around the viewpoint. Further away, the urban development of Kilmacolm and, more distantly, Dumbarton and Vale of Leven can be seen to the north-east, while the most mountainous and undeveloped backdrop is seen to the north and north-west.

5.10.329 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as shown in the wireline views. Some of these are seen from beyond the radius of their own

study areas and are discounted as they do not have potential to contribute to a significant cumulative effect. Several other baseline sites are also unlikely to contribute to significant cumulative effects due to limited and/or distant theoretical visibility, including Rigmuir, Priestside Farm, Shewalton Moss/Glaxo and GSK Shewalton; these sites are discounted from the assessment due to their lack of or very limited influence on the view.

5.10.330 There are two grouped clusters of baseline wind farms that have higher visibility and are included in the cumulative assessment. These groups are to the south-west of the viewpoint (Kelburn, Millour Hill and Extension, Wardlaw Wood, Ardrossan and Extension and Sorbie) and the south-east of the viewpoint (the cluster of Whitelee and surrounding sites). It should be noted that the majority of sites in the Whitelee cluster are relatively distant from the viewpoint and this group of wind farms alone would not have potential to contribute to a significant cumulative effect, but their presence as a second large cluster in addition to the south-western cluster ensures that they do merit inclusion. Corlic Hill (Inverclyde) wind farm, 10.2 km away to the north of the viewpoint, is also considered in the assessment.

5.10.331 This view has a medium-high value. It is not marked on mapping as a scenic viewpoint, and there is not a marked or maintained path to the summit. It is, however, on a walking route – 'Hill of Stake & Misty Law' for which a route card is available, and parking is provided at the Clyde Muirshiel Visitor Centre. The viewpoint lies on the eastern edge of an SLA, within Clyde Muirshiel Regional Park, and within WLA 04 Waterhead Moor – Muirshiel (although it should be noted that this is not a scenic designation). It also overlooks other more distant designations, including parts of LLTNP and Loch Lomond NSA and the Kilpatrick Hills LLA. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its medium-high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.332 The ten turbines in the Proposed Development would be seen to the north-east of this viewpoint from a minimum of 21.8 km away, with all hubs visible, and would extend across around 5º of the view. Elements of infrastructure would theoretically be visible but are unlikely to be discernible at this distance, although tall cranes may be visible during the construction phase. The magnitude of change on this view would be **low**, for the following reasons.

- The Proposed Development would result in a minor alteration to the baseline view, providing an influence in an aspect of the view that is currently unaffected by large-scale development.
- In clear conditions, the Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The Proposed Development would introduce wind farm influence to an aspect of the view that is not currently affected by wind energy development, adding to the two clusters and one single site that are already seen around the outlook.

5.10.333 The factors that restrict the magnitude of change to a low level are as follows.

- The Kilpatrick Hills is a large-scale, simple landscape that can accommodate the turbines without uncomfortable scale comparisons. This is particularly notable in

relation to the various other landscapes that are seen around the view; the mountains have a greater sensitivity to the Proposed Development due to their complex, awe-inspiring and rugged characteristics.

- The Proposed Development would not be seen in the direct context of the mountains, including a number of specific peaks, which are most scenic and dramatic features of the view. Conversely, the Proposed Development would be seen in the relatively unremarkable and more uniform lowland aspect of the view, where human influences are more apparent.
- The Proposed Development would affect a very limited part – approximately 5º - of the full panoramic view and would be seen from 21.8 km away, ensuring that the great majority of the view, including its most scenic parts, would remain unaffected.
- The lower elevation of the Proposed Development in relation to the viewpoint would reduce the perceived prominence of the turbines as they are not seen on an elevated skyline that rises above the viewpoint. Moreover, the turbines would be almost completely backclothed by landform, reducing their vertical impact.

Significance of the Effect

5.10.334 The effect of the Proposed Development on this view would be moderate-minor and **not significant** due to the factors that lead to the low magnitude of change on the view despite the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.335 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as described above. While a number of these sites are discounted from the assessment due to the lack of potential for them to contribute to significant cumulative effects, two clusters of baseline turbines, one to the south-west and one to the south-east of the viewpoint, as well as the site at Corlic Hill (Inverclyde) are relevant to the assessment. There is also theoretical visibility of the application sites at Dewshill and Low Drumclog. Low Drumclog is considered in the assessment, but Dewshill is discounted as it would be seen from outwith its own study area.

5.10.336 Two scenarios are therefore considered in the cumulative assessment; the addition of the Proposed Development to operational/under construction wind farms and the addition of the Proposed Development to operational/under construction wind farms plus the application wind farm at Low Drumclog. In the operational/under construction scenario, the addition of the Proposed Development to baseline wind farms would have a **medium-low** cumulative magnitude of change due to the low magnitude of change and not significant effect of the Proposed Development itself; the distant visibility of the south-eastern wind farm cluster (between 17.5 km and 37.1 km away); and the clustering of baseline wind farms into two main groups. When the application site at Low Drumclog is also considered, the cumulative magnitude of change would remain **medium-low** as this site would appear as part of the south-eastern cluster of wind farms and would not alter the effect arising from the addition of the Proposed Development.

5.10.337 The cumulative effect in the scenarios of operational wind farms and operational plus application stage wind farms would be moderate and **not significant** due to a combination of the factors that lead to the medium-low cumulative magnitude of change despite the high sensitivity of the viewpoint. A combination of a medium-low magnitude of change and high sensitivity can lead to an effect that is either significant or not

significant; in this case the effect is not significant due largely to the low magnitude of change and not significant effect arising from the Proposed Development itself.

Night-time Effect

5.10.338 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment at the viewpoint and from the night-time assessment of the viewpoints for which full assessments have been carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. While there would be theoretical visibility of the ten Proposed Development lights on the skyline, the distance of the lights from the viewpoint (nearly 22 km) ensures that visibility of either lighting scenario would be limited, and if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. Moreover, the lighting would be seen in an aspect of the view that is likely to have baseline lighting and the great majority of the view, including the eye-catching undeveloped hills and skylines that are discernible at dawn/dusk, would remain unaffected.

5.10.339 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 775 cd lights and the 200 cd lights would be perceived as 210 – 77.5 cd lights. The effects in both scenarios would remain **not significant**.

5.10.340 A cumulative night-time assessment is not required at this viewpoint due to limited visibility of relevant wind farm sites and the very limited effects arising from the Proposed Development. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 29: Ben Lomond (visualisations on Figure 5.44)

Baseline and Sensitivity

5.10.341 This viewpoint is located at the summit of Ben Lomond, 974m AOD. Ben Lomond has a spectacular panoramic outlook across much of western central Scotland, with Loch Lomond clearly seen in the foreground, primarily to the south and west of the viewpoint, although the narrower, more enclosed northern part of the loch can also be seen. The small settlements that lie along the western side of the loch – Tarbet (Viewpoint 32), Inverbeg (Viewpoint 27) and Luss (Viewpoint 23) – are visible where glens open out at the foot of the western hill slopes. A number of mountains and hills can be seen in the view, including the Arrochar alps to the west and hilltops that are the locations of other viewpoints, including Conic Hill, Ben Venue and Ben Ledi. Overall, the pattern of islands, undulating loch shores and mountainous setting creates a highly scenic outlook. The relatively unremarkable landform of the Kilpatrick Hills, including the site area, is seen at the southern end of Loch Lomond.

5.10.342 '*Ben Lomond, widely known, popularly frequented*' is one of the SLQs of the Loch Lomond area of the LLTNP and Loch Lomond NSA and is also mentioned in a number of other SLQs, as described in Table 5.9.

5.10.343 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as shown in the wireline views. The majority of these are seen from beyond the radius of

their own study areas, and are discounted from the assessment, The other sites are also discounted from the assessment as they do not have potential to contribute to significant cumulative effects due to limited and/or distant theoretical visibility. The closest wind farm is the consented Creag Dubh (22.3 km away), which has negligible theoretical visibility, while the other sites lie over 30 km away.

5.10.344 This view has a high value. It is a well-known, clearly signposted and popular walking destination that lies within and overlooks LLTNP and the Loch Lomond NSA and is an SLQ of these designated areas. Parking is provided at Rowardennan and the viewpoint is accessed by a well-marked core path. The view also has notable scenic qualities and a strong sense of place. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers who are engaging in outdoor recreation and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity.

Magnitude of Change

5.10.345 The ten turbines in the Proposed Development would be seen to the south of this viewpoint from a minimum of 23.1 km away, with all hubs visible, and would extend across around 5º of the view. Elements of infrastructure would theoretically be visible but are unlikely to be discernible at this distance, although tall cranes may be visible during the construction phase. The magnitude of change would be **low**, for the following reasons.

- The Proposed Development would result in a minor alteration to the baseline view, providing an influence in an aspect of the view that is unaffected by large-scale development.
- In clear conditions, the Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The Proposed Development would be seen in the same aspect of the outlook as the scenic pattern of islands on the loch, one of the many features of the view.

5.10.346 The factors that restrict the magnitude of change to a low level are as follows.

- The Kilpatrick Hills is a large-scale, simple landscape that can accommodate the turbines without uncomfortable scale comparisons. This is particularly notable in relation to the other landscapes that are seen around the view; the loch shores and mountains have a greater sensitivity to the Proposed Development due to their variously small-scale, intricate, complex, awe-inspiring and rugged characteristics.
- The Proposed Development would not be seen in the direct context of the most highly scenic and dramatic features of the view, which are the waterbody of the loch itself and its mountainous setting, including a number of specific peaks. These landmarks of the view would remain unaffected.
- The Proposed Development would affect a very limited part – approximately 5º - of the full panoramic view from Ben Lomond and would be seen from over 23 km away, ensuring that the great majority of the view, including its most scenic parts, would remain unaffected.
- The lower elevation of the Proposed Development in relation to the viewpoint would reduce the perceived prominence of the turbines as they are not seen on an elevated skyline that rises above the viewpoint. Moreover, the turbines would be seen backclothed by landform, reducing their vertical impact.

Significance of the Effect

5.10.347 The effect of the Proposed Development on this view would be moderate/minor and **not significant** due to the factors that lead to the low magnitude of change on the view despite the high sensitivity of the viewpoint.

Cumulative Effect

5.10.348 While there is theoretical visibility of baseline wind farms from this viewpoint, as described above, these are discounted from the assessment due to the theoretical visibility of the sites from beyond their own study areas, or the very limited influence that cumulative sites have on the view. There are two application stage sites – Dewshill and Low Drumclog – that are seen from outwith their study areas and are discounted from the assessment. There is also theoretical visibility of the application site at Earlsburn Extension from over 34 km away, which would not contribute to a significant cumulative effect. The cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.349 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment at the viewpoint and from the night-time assessment of the viewpoints for which full assessments have been carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. While there would be theoretical visibility of the ten Proposed Development lights below the skyline, the distance of the lights from the viewpoint (over 23 km) ensures that visibility of either lighting scenario would be limited, and if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. Moreover, the lighting would be seen in an aspect of the view that is likely to have baseline lighting and the great majority of the view, including the eye-catching undeveloped mountain skylines that are discernible at dawn/dusk, would remain unaffected.

5.10.350 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 775 cd lights and the 200 cd lights would be perceived as 210 – 77.5 cd lights. The effects in both scenarios would remain **not significant**.

5.10.351 A cumulative night-time assessment is not required at this viewpoint due to lack of/limited and distant visibility of relevant wind farm sites and the very limited effects arising from the Proposed Development. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 30: Dunoon (visualisations on Figure 5.45)

Baseline and Sensitivity

5.10.352 This viewpoint is located at Dunoon, where a core path and NCR 75 run along the waterfront, and gains a scenic outlook eastwards up the Firth of Clyde, southwards down the Firth of Clyde, and northwards into Loch Long. The built-up area of Gourock (including Lyle Hill, Viewpoint 25) can be seen to the east, to the right of the Proposed Development,

with the Rosneath peninsula and Helensburgh to the north-east. Ben Bowie (Viewpoint 15) is visible rising up behind Helensburgh.

5.10.353 There is theoretical visibility of one baseline wind farm – Kelburn - from this viewpoint, as shown in the wireline views. This site has very limited theoretical visibility gained from over 23 km away and is discounted from the assessment.

5.10.354 This view has a medium value. It is not marked on mapping as a scenic viewpoint, facilities such as parking are not provided for the enjoyment of the view, and it does not lie within a scenic designation. The view is, however, scenic and overlooks small parts of LLTNP and the Kilpatrick Hills LLA. The susceptibility to change at this viewpoint is high as it is included to represent views gained by local residents in Dunoon, who have an inherent high susceptibility, as well as walkers/cyclists on the core path and NCR 75. The sensitivity of the view is **high** due to the residential nature of some viewers.

Magnitude of Change

5.10.355 The ten turbines in the Proposed Development would be seen to the east of this viewpoint from a minimum of 24.6 km away and would extend across around 5º of the view. All of the hubs are theoretically visible and parts of five towers are screened by landform. Elements of infrastructure would theoretically be visible but are unlikely to be discernible at this distance, although tall cranes may be visible during the construction phase. The magnitude of change on this view would be **low**, for the following reasons.

- The Proposed Development would result in a minor alteration to the baseline view, providing an influence in an aspect of the view that is unaffected by large-scale development.
- The Proposed Development would lie in the direct orientation of views gained from some nearby houses.
- The aspect of the view in which the Proposed Development would be seen has a horizontal nature, and the turbines, some seen at full height, would have a vertical impact in this setting.
- In clear conditions, the Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The view of the Proposed Development across water can reduce the perceived distance from the viewpoint.

5.10.356 The factors that restrict the magnitude of change to a low level are as follows.

- The partial screening of turbine towers would reduce the overall visibility and vertical impact of the turbines.
- The Kilpatrick Hills is a large-scale and simple landscape that can accommodate the turbines without uncomfortable scale comparisons.
- Urban development in the middle ground of the view provides scale comparisons that reduce the perceived scale of the turbines. Perceived scale is also reduced by the appearance of the Proposed Development in a dip in the landform.
- The Proposed Development would affect a very limited part – approximately 5º - of the full open coastal view from Dunoon and would be seen from 24.6 km away, ensuring that the great majority of the view would remain unaffected.

Significance of the Effect

5.10.357 The effect of the Proposed Development on this view would be moderate/minor and **not significant** due to the factors that lead to the low magnitude of change on the view despite the high sensitivity of the viewpoint.

Cumulative Assessment

5.10.358 While there is theoretical visibility of one operational wind farm from this viewpoint, as described above, this is discounted from the assessment due to very limited and distant theoretical visibility. There is no theoretical visibility of application stage sites. There are therefore no relevant cumulative wind farm sites and the cumulative effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.359 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment at the viewpoint and from the night-time assessment of the viewpoints for which full assessments have been carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. While there would be theoretical visibility of the Proposed Development lights on the skyline, the distance of the lights from the viewpoint (over 24 km) ensures that visibility of either lighting scenario would be limited, and if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. Moreover, the lighting would be seen in an aspect of the view that is likely to have baseline lighting.

5.10.360 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 750 cd lights and the 200 cd lights would be perceived as 210 – 75 cd lights. The effects in both scenarios would remain **not significant**.

5.10.361 A cumulative night-time assessment is not required at this viewpoint due to lack of/limited and distant visibility of relevant wind farm sites and the very limited effects arising from the Proposed Development. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 31: Ben Venue (visualisations on Figure 5.46)

Baseline and Sensitivity

5.10.362 This viewpoint is located at the summit of Ben Venue, 729m AOD, which is in the Trossachs, approximately 1.5km to the south of the eastern end of Loch Katrine (which can be seen to the north-west of the viewpoint). Loch Achray and Loch Venachar can be seen to the east of the viewpoint, with Ben Ledi (Viewpoint 33) rising to the north of Loch Venachar. To the north, west and east of the viewpoint is an extensive mountainous landscape, while to the south and south-east are the settled and complex lowlands. The Campsie Fells, including the distinctive shape of Dumgoyne Hill (Viewpoint 16) are seen rising beyond the lowlands, while to the south is Ben Lomond (Viewpoint 29).

5.10.363 "*Rugged Ben Venue, the centrepiece of the Trossachs*" is one of the SLQs of The Trossachs area of the LLTNP and The Trossachs NSA, and is also mentioned in a number of other SLQs, as described in Table 5.9. The view from Ben Venue is specifically mentioned in the Trossachs area SLQ 'A traditional 'Gateway to the Highlands'', which states that "*The summit of Ben Venue is a particularly good place for grand panoramic views, northward to the Highlands, southward to the Lowlands".*

5.10.364 The 'Special Landscape Qualities of the Loch Lomond and The Trossachs National Park' includes analysis of a number of viewpoints, including Ben Venue, that lie within LLTNP and were used in site work for the formulation of the SLQs. The 'Visual' description includes the following excerpts.

"A massive panoramic vista…Scale vast, a sense of exposure pervades from the viewpoint…Vistas take in a very complex as well as massive interplay of landcover, terrain and water elements. Open summits and dense plantation juxtapose with open water lochs and broad-leaved coniferous woodland.

Whilst the panorama offered at the viewpoint is of a full 360º, the eye is drawn not exclusively to the immediate NSA, but to the north and west, into the heart of highland Scotland. Conversely, vistas on the ascent to the viewpoint are often closed in or constrained by plantation or relief of landform. A major experience of the ascent of Ben Venue from loch Achray is the opening out of the sudden vista at ridge between the Achray and Katrine basins. The views afford a clear appreciation of the transitional landscape of the Menteith Hills and Trossachs from the pastoral lowlands north of Stirling through the Callander area through the changing relief and waterscape of the NSA to the highlands of LLTNP."

5.10.365 There is theoretical visibility of a number of baseline wind farms this viewpoint, as shown in the wireline views. The majority of these are seen from beyond the radius of their own study areas, and they are discounted from the assessment. There is one cluster of baseline wind farms consisting of the operational Craigengelt, Earlsburn, Earlsburn North and the consented Shelloch that is included in the cumulative assessment due to the level of influence on the view that arises from the grouping of the turbines. The single site at Braes of Doune is also considered.

5.10.366 This view has a high value. It is a well-known walking destination that lies within and overlooks LLTNP and The Trossachs NSA as well as overlooking Loch Lomond NSA. Parking is provided and the viewpoint is accessed by a core path. The view also has notable scenic qualities, as noted in the SLQs, and a strong sense of place. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers who are engaging in outdoor recreation on the core path and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.367 The ten turbines in the Proposed Development would be seen to the south of this viewpoint from a minimum of 25.7 km away, with all hubs visible, and would extend across around 4º of the view. Elements of infrastructure would theoretically be visible but are

unlikely to be discernible at this distance, although tall cranes may be visible during the construction phase. The magnitude of change would be **low**, for the following reasons.

- The Proposed Development would result in a minor alteration to the baseline view, providing an influence in an aspect of the view that is unaffected by large-scale development.
- In clear conditions, the Proposed Development would introduce movement and contrasting colour and texture into the upland setting in which it is seen.
- The Proposed Development would be seen partially against landform and partially against the sky, which can be eye-catching.

5.10.368 The factors that restrict the magnitude of change to a low level are as follows.

- The Kilpatrick Hills is a large-scale and simple landscape that can accommodate the turbines without uncomfortable scale comparisons. This is particularly notable in relation to the other landscapes that are seen around the view; the loch shores and mountains have a greater sensitivity to the Proposed Development due to their variously small-scale, intricate, complex, awe-inspiring and rugged characteristics.
- In relation to the above quote from 'Special Landscape Qualities of the Loch Lomond and The Trossachs National Park' relating to the view from Ben Venue, the Proposed Development would not be seen to the '*north and west*' where '*the eye is drawn*', but to the south, in the lowlands.
- The Proposed Development would not be seen in the context of the most highly scenic and dramatic features of the view, which are the mountains and lochs, including a number of landmark peaks.
- The lower elevation of the Proposed Development in relation to the viewpoint would reduce the perceived prominence of the turbines as they are not seen on an elevated skyline that rises above the viewpoint.
- The Proposed Development would affect a very limited part – approximately 4º - of the full panoramic view from Ben Venue and would be seen from 25.7 km away, ensuring that the great majority of the view, including its most scenic parts, would remain unaffected.

Significance of the Effect

5.10.369 The effect of the Proposed Development on this view would be moderate/minor and **not significant** due to the factors that lead to the low magnitude of change on the view despite the high sensitivity of the viewpoint.

Cumulative Effect

5.10.370 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as described above. While the majority of these sites are discounted from the assessment, one cluster of wind farms - Craigengelt, Earlsburn, Earlsburn North and Shelloch - is considered, along with Braes of Doune. There is also theoretical visibility of the application stage sites at Earlsburn North and Low Drumclog, which would be seen from outwith its own study area.

5.10.371 The cumulative effect in any scenario would have a **low** magnitude of change and a **not significant** effect due to both the very limited effect that the Proposed Development would have on the view and the limited and distant visibility of all cumulative wind farms.

Night-time Effect

5.10.372 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment at the viewpoint and from the night-time assessment of the viewpoints for which full assessments have been carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. While there would be theoretical visibility of the Proposed Development lights, the distance of the lights from the viewpoint (over 25 km) ensures that visibility of either lighting scenario would be limited, and if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. Moreover, the great majority of the view, including the eye-catching undeveloped mountain skylines that are discernible at dawn/dusk, would remain unaffected.

5.10.373 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 775 cd lights and the 200 cd lights would be perceived as 210 – 77.5 cd lights. The effects in both scenarios would remain **not significant**.

5.10.374 A cumulative night-time assessment is not required at this viewpoint due to limited and distant visibility of relevant wind farm sites and the very limited effects arising from the Proposed Development. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 32: Tarbet (visualisations on Figure 5.47)

Baseline and Sensitivity

5.10.375 This viewpoint is located on the A82 on the eastern edge of Tarbet. The majority of Tarbet has very limited theoretical visibility of the Proposed Development due to landform screening, and in reality this would be further reduced by vegetation. Theoretical visibility from the eastern edge of the village is slightly higher, and this viewpoint is considered to represent the highest level of visibility that would be gained. This part of the A82 is identified as part of the 'Argyll Coastal Route' scenic route. While a core path is identified in this location in the LLTNPA core paths plan (2010), there is no evidence of this on the ground, and no footway is provided on the A82. The core paths plan is currently under review, but information on how the review may affect the identification of this path is not available on LLTNPA's website. Nearby houses are likely to gain similar views.

5.10.376 This view is a scenic southwards outlook down Loch Lomond, channelled by the steep, enclosing and wooded landform of the northern part of the loch. The peak of Ben Lomond can be seen on the east side of the loch. The southern end of the loch is not visible, screened by the wooded headland of Ross Point.

5.10.377 There is no visibility of cumulative wind farms in this view.

5.10.378 This view has a medium value. It is not marked on mapping as a scenic viewpoint and facilities such as pedestrian footway or parking are not provided for the enjoyment of the view. The view is, however, on an identified scenic driving route and lies within and overlooks LLTNP and the Loch Lomond NSA as well as a small part of the Kilpatrick Hills LLA. The susceptibility to change at this viewpoint is high as it is included to represent

views gained by local residents as well as drivers on the scenic route. The sensitivity of the view is **high** due to the residential nature of some viewers.

Magnitude of Change

5.10.379 The ten turbines in the Proposed Development would be seen to the south of this viewpoint from a minimum of 26.5 km away and would extend across less than 3º of the view. Four hubs and two blade tips are theoretically visible but in reality the two blades are unlikely to be discernible. Parts of three towers are screened by landform. Elements of infrastructure would theoretically be visible but are unlikely to be discernible at this distance, although tall cranes may be visible during the construction phase. The magnitude of change on this view would be **low**, for the following reasons.

- The Proposed Development would result in a minor alteration to the baseline view, providing an influence in an aspect of the view that is unaffected by large-scale development.
- The Proposed Development would lie in the orientation of views gained from some nearby houses, and views towards the Proposed Development would be channelled by the landform of the loch sides.
- In clear conditions, the Proposed Development would introduce movement and contrasting colour and texture into the setting in which it is seen.
- The view of the Proposed Development across water can reduce the perceived distance from the viewpoint.

5.10.380 The factors that restrict the magnitude of change to a low level are as follows.

- Visibility of the Proposed Development is limited by landform screening and is peripheral to the main axis of the view down the loch.
- The limited and distant visibility of the turbines would limit their vertical impact.
- The Kilpatrick Hills is a large-scale, simple landscape that can accommodate the turbines without uncomfortable scale comparisons.
- While views across water can reduce the perceived distance between the viewpoint and the Proposed Development, the intervening water also provides visual and physical separation, so that the Proposed Development is not perceived as encroaching towards the viewpoint.
- The Proposed Development would affect a very limited part – less than 3º - of the view and would be seen from 26.5 km away, ensuring that the turbines would appear as very minor features.

Significance of the Effect

5.10.381 The effect of the Proposed Development on this view would be moderate/minor and **not significant** due to the factors that lead to the low magnitude of change on the view despite the high sensitivity of the viewpoint.

Cumulative Effect

5.10.382 There is no visibility of cumulative wind farms in this view and the effect arising from the addition of the Proposed Development would be **not significant**.

Night-time Effect

5.10.383 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment at the viewpoint and from the night-time assessment of the viewpoints for which full assessments have been carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. While there would be theoretical visibility of four of the Proposed Development lights, the distance of the lights from the viewpoint (over 26 km) ensures that visibility of either lighting scenario would be limited, and if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility.

5.10.384 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 750 cd lights and the 200 cd lights would be perceived as 210 – 75 cd lights. The effects in both scenarios would remain **not significant**.

5.10.385 A cumulative night-time assessment is not required at this viewpoint due to lack of visibility of relevant wind farm sites and the very limited effects arising from the Proposed Development. The night-time cumulative effect would be **not significant** in any scenario.

Viewpoint 33: Ben Ledi (visualisations on Figure 5.48)

Baseline and Sensitivity

5.10.386 This viewpoint is located at the summit of Ben Ledi, 879m AOD, 2.3km to the west of the A84 between Callander and Strathyre. The panoramic outlook from this viewpoint has a varied character, with an extensive upland mountainous landscape to the north, west and east, while to the south and south-east are the settled, complex and low-lying straths and valley landscapes, within which Callander lies and through which the A84 runs.

5.10.387 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as shown in the wireline views. The majority of these are seen from beyond the radius of their own study areas, and are discounted from the assessment as they do not have potential to contribute to a significant cumulative effect. There is one cluster of baseline wind farms - Craigengelt, Earlsburn, Earlsburn North and Shelloch - that is considered due to the grouping of turbines. The site at Braes of Doune is also considered.

5.10.388 This view has a high value. It is a well-known, signposted walking destination that lies within LLTNP and overlooks the Loch Lomond and The Trossachs NSAs. It is also within the eastern end of WLA 07. Ben More - Ben Ledi (although it should be noted that this is not a scenic designation). Parking is provided and the viewpoint is accessed by a core path. The view also has notable scenic qualities and a strong sense of place. The susceptibility to change at this viewpoint is high as people who gain the view would be walkers who are engaging in outdoor recreation on the core path and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the view and its high value results in a **high** sensitivity for this viewpoint.

Magnitude of Change

5.10.389 The ten turbines in the Proposed Development would be seen to the south-west of this viewpoint from a minimum of 31.7 km away, with all hubs visible, and would extend across less than 4º of the view. Elements of infrastructure would theoretically be visible but are unlikely to be discernible at this distance, although tall cranes may be visible during the construction phase. The magnitude of change on this view would be **low**, for the following reasons.

- The Proposed Development would result in a minor alteration to the baseline view, providing an influence in an aspect of the view that is unaffected by large-scale development.
- In clear conditions, the Proposed Development would introduce movement and contrasting colour and texture into the upland moorland setting in which it is seen.
- The Proposed Development would be seen partially against landform and partially against the sky, which can be eye-catching.

5.10.390 The factors that restrict the magnitude of change to a low level are as follows.

- The Kilpatrick Hills is a large-scale, simple landscape that can accommodate the turbines without uncomfortable scale comparisons. This is particularly notable in relation to the other landscapes that are seen around the view; the loch shores and mountains have a greater sensitivity to the Proposed Development due to their variously small-scale, intricate, complex, awe-inspiring and rugged characteristics.
- The Proposed Development would not be seen in the context of the most highly scenic and dramatic features of the view, which are the mountains and lochs, including a number of landmark peaks.
- The lower elevation of the Proposed Development in relation to the viewpoint would reduce the perceived prominence of the turbines as they are not seen on an elevated skyline that rises above the viewpoint.
- The Proposed Development would affect a very limited part – less than 4º - of the full panoramic view from Ben Venue and would be seen from 31.7 km away, ensuring that the great majority of the view, including its most scenic parts, would remain unaffected.

Significance of the Effect

5.10.391 The effect of the Proposed Development on this view would be moderate/minor and **not significant** due to the factors that lead to the low magnitude of change on the view despite the high sensitivity of the viewpoint.

Cumulative Effect

5.10.392 There is theoretical visibility of a number of baseline wind farms from this viewpoint, as described above. While the majority of these sites are discounted from the assessment, one cluster of wind farms - Craigengelt, Earlsburn, Earlsburn North and Shelloch - is considered, along with Braes of Doune. There is also theoretical visibility of the application stage sites at Earlsburn North and Low Drumclog, which would be seen from outwith its own study area.

5.10.393 The cumulative effect in any scenario would have a **low** magnitude of change and a **not significant** effect due to both the very limited effect that the Proposed Development would have on the view and the limited and distant visibility of all cumulative wind farms.

Night-time Effect

5.10.394 This viewpoint has not been visited at night-time, night-time photomontages have not been produced, and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment at the viewpoint and from the night-time assessment of the viewpoints for which full assessments have been carried out. On this basis, it is likely that the night-time effect at this viewpoint would be **not significant** in both the 2,000 cd and 200 cd scenarios. While there would be theoretical visibility of the Proposed Development lights, the distance of the lights from the viewpoint (over 31 km) ensures that visibility of either lighting scenario would be limited, and if the 2,000 cd lights are activated due to poor visibility conditions, they would not be seen at full intensity due to the poor visibility. Moreover, the great majority of the view, including the eye-catching undeveloped mountain skylines that are discernible at dawn/dusk, would remain unaffected.

5.10.395 The lighting intensity ZTV (**Figure 5.7c**) indicates that allowing for potential changes in light intensity due to vertical elevation angle from turbine light, the 2,000 cd lights would be perceived as 2,100 – 775 cd lights and the 200 cd lights would be perceived as 210 – 77.5 cd lights. The effects in both scenarios would remain **not significant**.

5.10.396 A cumulative night-time assessment is not required at this viewpoint due to limited and distant visibility of relevant wind farm sites and the very limited effects arising from the Proposed Development. The night-time cumulative effect would be **not significant** in any scenario.

Settlement: Balfron

Baseline and Sensitivity

5.10.397 The settlement of Balfron is approximately 12.8 km to the north-east of the Proposed Development (as shown on **Figure 5.6b**) and lies within the Lowland River Valleys – Central LCT. The Endrick Water passes to the south of Balfron, with the settlement lying on the south-west-facing valley side. Viewpoint 22 (Balfron Cemetery) is located just outwith the north-western settlement boundary, from where there is an elevated view towards the Proposed Development. Settlements are accorded a high sensitivity due to the residential nature of viewers, and Balfron therefore has a **high** sensitivity as a visual receptor.

Magnitude of Change

5.10.398 The ZTV (see **Figure 5.13b**) indicates consistent theoretical visibility of the Proposed Development across Balfron. However, the great majority of views of the Proposed Development would be screened and filtered by buildings and vegetation within and around the settlement, and Viewpoint 22 represents the highest type of visibility that may be gained from Balfron due to its elevation and the open aspect of the outlook. The assessment for Viewpoint 22 concludes that the Proposed Development would have a medium magnitude of change on the view and where clear and open views towards the Proposed Development are available from Balfron, similar to those seen at Viewpoint 22, the magnitude of change is also likely to be **medium**. However, this level of change on views would be found only in the specific areas that gain similarly open views; elsewhere, where there is more limited actual visibility of the Proposed Development, the magnitude

of change is likely to have a maximum **low** level. Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of visibility of the Proposed Development.

Significance of the Effect

5.10.399 The effect of the Proposed Development on views from the majority of Balfron would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium magnitude of change combined with the high sensitivity of the receptor may lead to a major/moderate and **significant** effect on views from some limited locations where there is clear and open visibility of the Proposed Development, as seen at Viewpoint 22.

Cumulative Effect

5.10.400 The closest wind farms to Balfron are those in the cluster around Earlsburn, with the consented Shelloch lying approximately 10.5 km away and Earlsburn approximately 11.3 km away. The landform on which Balfron lies is orientated to the south-west whereas the Earlsburn group lies to the east, and the cumulative ZTVs show no/negligible theoretical visibility of these sites from Balfron. Other wind farms lie considerably further away and will not contribute to a significant cumulative effect on views from Balfron. The cumulative assessment at Viewpoint 22 concludes that the cumulative effect of the Proposed Development on the view from Balfron Cemetery would be **not significant** in any scenario and this assessment would also apply to wider views from Balfron.

Night-time Effect

5.10.401 Viewpoint 22 (Balfron Cemetery) is assessed to have a **not significant** effect in both the 200 cd and 2,000 cd scenarios and this would also apply to the wider settlement. Allowing for potential changes in light intensity due to mitigation (vertical elevation angle from the turbine light) the effects in both scenarios would remain **not significant**.

Settlement: Balmaha

Baseline and Sensitivity

5.10.402 The settlement of Balmaha is a minimum of approximately 9.5 km to the north of the Proposed Development (as shown on **Figure 5.6b**) and lies within LLTNP and the Loch Lomond NSA. Balmaha is a popular tourist destination, with a number of facilities including Loch Lomond National Park Information Centre, boatyard, boat trips, accommodation, food and parking. The WHW, including the route up Conic Hill, passes through Balmaha. Viewpoint 17 (Balmaha Harbour) is located to the west of the settlement, from where there is an open view towards the Proposed Development.

5.10.403 Settlements are accorded a high sensitivity due to the residential nature of viewers and Balmaha therefore has a **high** sensitivity as a visual receptor.

Magnitude of Change

5.10.404 The ZTV (see **Figure 5.13b**) indicates consistent theoretical visibility of the Proposed Development from Balmaha. However, the landform on which Balmaha is built and its relationship with Loch Lomond is orientated to the south-west, around the bay. This,

combined with screening by buildings and the vegetation that characterises the village, ensures that there would be limited actual visibility of the Proposed Development from the majority of the settlement. Viewpoint 17, which gains an open outlook due to its location to the west of the settlement, projecting beyond the bay and overlooking open water, represents the highest type of visibility that may be gained from Balmaha. Similar but less open and direct views may be gained from some properties that lie on the southern edge of the settlement, with views across the loch.

5.10.405 The assessment for Viewpoint 17 concludes that the Proposed Development would have a medium magnitude of change on the view and where clear and open views towards the Proposed Development are available from Balmaha, similar to those seen at Viewpoint 17, the magnitude of change is also likely to be **medium**. This level of change on views would be restricted to the specific areas that gain similarly open views and elsewhere, where there is more limited actual visibility of the Proposed Development, the magnitude of change is likely to have a maximum **low** level. Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility.

Significance of the Effect

5.10.406 The effect of the Proposed Development on views from the majority of Balmaha would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium magnitude of change combined with the high sensitivity of the receptor may lead to a major/moderate and **significant** effect on views from some limited locations where there is clear visibility of the Proposed Development, as seen at Viewpoint 17.

Cumulative Effect

5.10.407 The closest relevant wind farm to Balmaha is Corlic Hill (Inverclyde), which is over 21 km away, is not visible at Viewpoint 17, and is shown on the cumulative ZTV to have no visibility from Balmaha. Other wind farms lie further away and would not contribute to a significant cumulative effect on views. The assessment of Viewpoint 17 concludes that the cumulative effect of the Proposed Development on this view would be **not significant** in any scenario and this assessment would also apply to wider views from Balmaha.

Night-time Effect

5.10.408 Viewpoint 17 (Balmaha Harbour) is assessed to have a **significant** effect in the 2,000 cd scenario and a **not significant** effect in the 200 cd scenario, and this would also apply to those parts of the wider settlement that gain clear visibility of the Proposed Development at night-time and have a relatively dark baseline night-time environment, as seen at Viewpoint 17. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, the effect in both scenarios would be **not significant**.

Settlement: Bishopton

Baseline and Sensitivity

5.10.409 The settlement of Bishopton is a minimum of approximately 7 km to the south of the Proposed Development, as shown on **Figure 5.6b**. Whilst quite close to the Firth of Clyde shoreline, Bishopton is elevated above the Raised Beach LCT that lines the water's edge and is located in Rugged Upland Farmland LCT. The landform on which Bishopton is built

is gently undulating, with more pronounced landform in the south-east and south-west parts of the settlement. There is no viewpoint located in Bishopton and while Viewpoint 10 (Langbank) and Viewpoint 13 (Finlaystone Estate) provide an indication of the type of theoretical visibility that may be gained from areas to the south of the Firth of Clyde, both of these viewpoints show a considerably higher level of visibility of the Proposed Development than working wirelines indicate is the case for Bishopton. Settlements are accorded a high sensitivity due to the residential nature of viewers, and Bishopton therefore has a **high** sensitivity as a visual receptor.

Magnitude of Change

5.10.410 The ZTV (see **Figure 5.13b**) indicates limited/very limited theoretical visibility of the Proposed Development across Bishopton, much of it blade only, due to screening by the undulating landform on which the settlement is built as well as the southern Kilpatrick Hills. Theoretical visibility at the western extremity of the settlement is slightly higher (a maximum of four to six hubs) than all other areas (a maximum of one to three hubs). A combination of this limited theoretical visibility and further screening by buildings and vegetation means that there would be very little actual clear and open visibility of the Proposed Development from the majority of the settlement. Dense woodland planting along parts of the M8 as it passes the north-eastern edge of Bishopton would screen views from this area. Some views, generally of the upper parts of a few turbines, may be available, particularly from the north-western edge of the settlement.

5.10.411 Where clear and open views towards the Proposed Development are available from Bishopton, the maximum magnitude of change on views is likely to be **medium.** This level of change on views would be restricted to very specific areas that gain open views of the limited part of the Proposed Development that is visible. Elsewhere, where there is very limited actual visibility of the Proposed Development, the magnitude of change is likely to have a maximum **low** level. Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility.

Significance of the Effect

5.10.412 The effect of the Proposed Development on views from the great majority of Bishopton would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium magnitude of change combined with the high sensitivity of the receptor may lead to a major/moderate and **significant** effect on views from some very limited locations where there is clear visibility of the Proposed Development.

Cumulative Effect

5.10.413 The closest wind farms to Bishopton are Priestside Farm and Corlic Hill (Inverclyde), which are 9.6 km and 12.5 km away respectively. However, cumulative ZTVs show no or negligible theoretical visibility of these sites Other relevant wind farms lie further away and would not contribute to a significant cumulative effect on views from Bishopton. The cumulative effect on views from Bishopton would therefore be **not significant**.

Night-time Effect

5.10.414 A night-time visualisation for this settlement has not been produced and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn

from the day-time assessment of effects on views from this settlement and the wider night-time viewpoint assessment throughout the Study Area. A combination of the limited visibility of the Proposed Development and baseline lighting in the settlement is likely to ensure that the night-time effect in any scenario would be **not significant.**

Settlement: Bridge of Weir

Baseline and Sensitivity

5.10.415 The settlement of Bridge of Weir is a minimum of approximately 13.4 km south-south-west of the Proposed Development, as shown on **Figure 5.6b**. Topographically, the settlement falls into two parts, divided by the River Gryfe; the northern part is on the northern side of the river valley, and is largely orientated to the south-west, away from the Site, while the southern part of the settlement is on the southern valley side, orientated to the north-east, and rises steeply up Castle Hill. There is no viewpoint located in Bridge of Weir. Settlements are accorded a high sensitivity due to the residential nature of viewers, and Bridge of Weir therefore has a **high** sensitivity.

Magnitude of Change

5.10.416 The ZTV (see **Figure 5.13b**) indicates very intermittent theoretical visibility of the Proposed Development from the northern part of the settlement, which is largely orientated away from the Proposed Development, and consistent but more distant (a minimum of approximately 14.5 km away) theoretical visibility from the southern part of the settlement, which is orientated towards the Proposed Development. Screening by buildings and vegetation ensures that actual visibility of the Proposed Development would be limited, particularly when combined with the distance from the Proposed Development. However, some views of the Proposed Development are likely to be gained from elevated locations in the southern part of the settlement and where clear views are available, the maximum magnitude of change on views would be **medium.** This level of change on views would be restricted to specific elevated areas that are orientated towards the Site and gain open views of the Proposed Development. Elsewhere, where there is limited theoretical and actual visibility, the magnitude of change is likely to have a maximum **low** level. Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility of the Proposed Development.

Significance of the Effect

5.10.417 The effect of the Proposed Development on views from the majority of Bridge of Weir would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium magnitude of change combined with the high sensitivity of the receptor may lead to a major/moderate and **significant** effect on views from some limited locations where there is clear and open visibility of the Proposed Development.

Cumulative Effect

5.10.418 The closest sites to Bishopton are Priestside Farm and Braco wind farms, which are 7.8 km and 8.7 km away and are shown on cumulative ZTVs to have very intermittent and negligible theoretical visibility respectively. Other sites that lie relatively close to Bridge of Weir are Corlic Hill (Inverclyde), over 10 km away, and Neilston, 12 km away, both of

which are shown on cumulative ZTVs to have very intermittent theoretical visibility. Other wind farms lie further away and will not contribute to a significant cumulative effect on views from Bridge of Weir. The cumulative effect on views from Bridge of Weir would be **not significant** due to the lack of notable visibility and influence of other wind farms.

Night-time Effect

5.10.419 A night-time visualisation for this settlement has not been produced and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the wider night-time viewpoint assessment, and this indicates that the night-time effect in any scenario is likely to be **not significant** due to the distance of the settlement from the Proposed Development.

Settlement: Brookfield

5.10.420 The settlement of Brookfield is a minimum of approximately 14.3 km south of the Proposed Development, as shown on **Figure 5.6b**. The landform on which Brookfield is built is gently undulating, with more pronounced landform in the central part of the settlement where the ground rises to approximately 40 m AOD. There is no viewpoint located in Brookfield. Settlements are accorded a high sensitivity due to the residential nature of viewers, and Brookfield therefore has a **high** sensitivity.

Magnitude of Change

5.10.421 The ZTV (see **Figure 5.13b**) indicates consistent theoretical visibility of the Proposed Development, partly blade only, from the settlement at a minimum of approximately 14.3 km away. A combination of screening by buildings and vegetation, the gently undulating landform on which the settlement is built, and the landform of the southern Kilpatrick Hills ensures that actual visibility of the Proposed Development would be limited. However, some views of the Proposed Development may be gained from some more elevated locations, and where clear views towards the Proposed Development are available, the maximum magnitude of change on views is likely to be **medium.** This level of change on views would be restricted to specific elevated areas that are orientated towards the Site and gain open views of the Proposed Development; elsewhere, where there is limited theoretical and actual visibility, the magnitude of change is likely to have a maximum **low** level. Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility of the Proposed Development.

Significance of the Effect

5.10.422 The effect of the Proposed Development on views from the majority of Brookfield would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium magnitude of change combined with the high sensitivity of the receptor may lead to a major/moderate and **significant** effect on views from some limited locations where there is clear and open visibility of the Proposed Development.

Cumulative Effect

5.10.423 The closest site to Brookfield is Braco wind farm, 8 km away, which is shown on the cumulative ZTV to have no theoretical visibility from Brookfield. Neilston and Middleton wind farms are approximately 10.5 km and 12.5 km away respectively and are also shown

to have no theoretical visibility. Corlic Hill (Inverclyde) is 13.5 km away and has negligible theoretical visibility. Other relevant wind farms lie further away and will not contribute to a significant cumulative effect on views from Brookfield. The cumulative effect on views from Brookfield would be **not significant** due to the lack of notable visibility and influence of other wind farms.

Night-time Effect

5.10.424 A night-time visualisation for this settlement has not been produced and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the wider night-time viewpoint assessment, and this indicates that the night-time effect in any scenario is likely to be **not significant** due to the distance of the settlement from the Proposed Development.

Settlement: Croftamie

Baseline and Sensitivity

5.10.425 The small settlement of Croftamie is approximately 5.7 km to the north-east of the Proposed Development (as shown on **Figure 5.6b**) and lies just within LLTNP. Croftamie is largely within the River Valley Farmland and Estates LCT and is located above two watercourses; the Catter Burn, which forms the southern boundary of LLTNP, runs to the south of the village while the Endrick Water passes to the east. There is no viewpoint located in Croftamie as a suitable publicly accessible location within the village with a clear and open outlook towards the Proposed Development could not be found. Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers, and Croftamie is therefore considered to have a **high** sensitivity.

Magnitude of Change

5.10.426 The ZTV (see **Figure 5.13b**) indicates intermittent theoretical visibility of the Proposed Development across Croftamie, with the northern and south-eastern parts gaining no/ very intermittent and limited visibility and the central and south-western parts gaining higher theoretical visibility. However, the gentle nature of the landform, which lacks steep slopes and long, open views, combined with screening by buildings and the vegetation that characterises the village, means that there would be very little actual clear and open visibility of the Proposed Development from the majority of the settlement. Some views, generally of the upper parts of turbines, are likely to be available, with lower turbine towers screened by landform and filtering of the upper towers and blades by vegetation.

5.10.427 Where clear and open views towards the Proposed Development are available from Croftamie, the maximum magnitude of change on views is likely to be **medium-high**. This level of change would be restricted to the specific areas that gain open views and elsewhere, where there would be more limited actual visibility of the Proposed Development, the magnitude of change is likely to have a maximum **low** level. Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility of the Proposed Development.

Significance of the Effect

5.10.428 The effect of the Proposed Development on views from the majority of Croftamie would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium-high magnitude of change combined with the high sensitivity of the receptor may lead to a major and **significant** effect on views from some limited locations where there is clear and open visibility of the Proposed Development.

Cumulative Effect

5.10.429 The closest wind farm to Croftamie is the consented site at Shelloch, 18 km away, which is shown on the cumulative ZTV to have intermittent theoretical visibility from Croftamie. Earlsburn and Earlsburn North are slightly further away, at approximately 19 km, and also have intermittent theoretical visibility. Other relevant wind farms lie further away and will not contribute to a significant cumulative effect on views from Croftamie. The cumulative effect on views from Croftamie would be **not significant** due to the lack of notable visibility and influence of other wind farms.

Night-time Effect

5.10.430 A night-time visualisation has not been produced for Croftamie and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment of effects on views from this settlement and the wider night-time viewpoint assessment throughout the Study Area. A combination of the limited visibility of the Proposed Development and baseline lighting in the settlement is likely to ensure that the night-time effect in the 200 cd scenario would be **not significant.** There may be very limited **significant** effects in the 2,000 cd scenario where there is clear visibility of the Proposed Development and the baseline night-time environment is dark. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, the effect in both scenarios would be **not significant**.

Settlement: Drymen

Baseline and Sensitivity

5.10.431 Drymen is approximately 8 km to the north-east of the Proposed Development (as shown on **Figure 5.6b**) and lies within the eastern edge of LLTNP. Drymen is in the River Valley Farmland and Estates LCT and is located on gently undulating landform on the northern side of the Endrick Water. Viewpoint 14 is just under 1 km to the south-east of the village, on the WHW, and provides an indication of the highest type of theoretical visibility that may be gained from Drymen. It should be noted that Viewpoint 14 is located in a more elevated position than the majority of Drymen, and therefore gains a more open and elevated outlook than is likely to be gained from the settlement.

5.10.432 Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers, and Drymen is therefore considered to have a **high** sensitivity.

Magnitude of Change

5.10.433 The ZTV (see **Figure 5.13b**) indicates consistent theoretical visibility of the Proposed Development across Drymen. However, the great majority of views of the Proposed

Development would be screened and filtered by buildings and vegetation within and around the settlement. Some views, generally of the upper parts of turbines, are likely to be available; where this is the case, they would be similar to that seen at Viewpoint 14 but with lower turbine towers screened by landform and filtering of the upper towers and blades by vegetation. The higher level of visibility is likely to be gained from the more elevated northern part of the village and to include filtered views from the B858 as it passes through the village.

5.10.434 The assessment for Viewpoint 14 concludes that the Proposed Development would have a medium magnitude of change on the view. Where clear and open views towards the Proposed Development are available from Drymen, similar to those seen at Viewpoint 14, the magnitude of change on views is also likely to be **medium**. This level of change on views would be restricted to the specific areas that gain open views; elsewhere, where there is more limited actual visibility of the Proposed Development, the magnitude of change is likely to have a **low** level. Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of/very limited visibility.

Significance of the Effect

5.10.435 The effect of the Proposed Development on views from the majority of Drymen would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium magnitude of change combined with the high sensitivity of the receptor may lead to a major/moderate and **significant** effect on views from some limited locations where there is clear and open visibility of the Proposed Development, as seen at Viewpoint 14.

Cumulative Effect

5.10.436 The closest wind farm to Drymen is the consented site at Shelloch, 17.5 km away, which is shown on the cumulative ZTV to have very intermittent theoretical visibility from the settlement. Earlsburn and Earlsburn North are slightly further away, at approximately 18 km, and have negligible theoretical visibility. Other relevant wind farms lie further away and will not contribute to a significant cumulative effect on views from Drymen. The cumulative effect at Viewpoint 14 is assessed to be not significant, and the cumulative effect on views from Drymen would also be **not significant**.

Night-time Effect

5.10.437 Viewpoint 14 (WHW near Drymen) is assessed to have a **significant** effect in the 2,000 cd scenario and a **not significant** effect in the 200 cd scenario, and this would also apply to those parts of the wider settlement that have a relatively dark baseline environment and gain clear visibility of the Proposed Development. However, the effect on those parts of the settlement that are illuminated at night is likely to be **not significant** in either scenario, and if mitigation relating to changes in light intensity due to vertical elevation angle is achieved, the effect in both scenarios would also be **not significant**.

Settlement: Dumbarton

Baseline and Sensitivity

5.10.438 Dumbarton lies on the north bank of the Clyde and is a minimum of approximately 2.9 km south-west of the Proposed Development, as shown on **Figure 5.6b**. The eastern edge

of Dumbarton abuts the Rugged Moorland Hills LCT within which the Proposed Development lies, and the north-eastern fringe of the settlement is built on the steep lower slopes of the Kilpatrick Hills. The River Leven flows through Dumbarton and out into the Clyde estuary at Dumbarton Rock. Viewpoint 3, located on the A82 on the northern edge of Dumbarton, provides an indication of the higher type of theoretical visibility that may be gained from the town. Viewpoint 8 (Dumbarton Rock) lies on the southern edge of the settlement and while its elevation means that it does not represent a typical view of the Proposed Development from the town, the outlook does clearly show the layout and topography of the town. Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers, and Dumbarton is therefore considered to have a **high** sensitivity.

Magnitude of Change

5.10.439 Theoretical visibility of the Proposed Development from Dumbarton reflects the landform on which the settlement is built. Where landform slopes down to the Clyde, there are areas of no or negligible visibility e.g. at Milton and the south-western edge of the town. Bellsmyre, the area that is closest to the Proposed Development, is built on the slopes of the Kilpatrick Hills and views from here have a strong south-westwards orientation, across the River Leven and away from the Proposed Development. Here, the ZTV (see **Figure 5.13b**). shows theoretical visibility of limited numbers of turbines, much of which would be blade only. In reality, the great majority of this theoretical visibility is screened by intervening houses and vegetation, and the strong south-westwards orientation and elevation of the houses in this area (as seen in the photograph for Viewpoint 8) ensure that their views are not focussed on the Proposed Development but across the River Leven, in the opposite direction.

5.10.440 Other parts of the settlement have higher theoretical visibility. On the western bank of the river, the higher ground of Kirktonhill and Castlehill is orientated north-eastwards towards the Proposed Development, and there are likely to be some views of the Proposed Development from approximately 5 km away, although screening by intervening houses and vegetation would screen and filter many views. Dumbarton Central Railway Station is in an elevated position and is likely to gain some visibility from just under 5 km away. The lower-lying and flatter areas that lie between the A82 and the River Leven are shown to gain consistent theoretical visibility but again buildings and vegetation would often screen and filter the outlook towards the Proposed Development.

5.10.441 Viewpoint 3 represents the higher type of visibility that may be gained from Dumbarton due to the relatively open aspect of the outlook. The assessment for Viewpoint 3 concludes that the Proposed Development would have a medium-high magnitude of change on the view, and where clear and open views towards the Proposed Development are available from Dumbarton, similar to those seen at Viewpoint 3 or from further away but with clear visibility, the magnitude of change on views is also likely to be **medium-high**. This level of change on views would be restricted to very specific locations such as along and across the River Leven where views are more open, and elevated areas such as Kirktonhill and Castlehill that are further away but orientated towards the Proposed Development. Elsewhere, magnitude of change is likely to have a maximum **low** level. This low magnitude of change is likely to apply to the majority of Bellsmyre due to the orientation of views to the south-west, away from the Proposed Development, and

screening of views. Many parts of the settlement would have no change or a **negligible** change due to lack of, or very limited, visibility of the Proposed Development.

Significance of the Effect

5.10.442 The effect of the Proposed Development on views from the majority of Dumbarton would be **not significant** due to lack of, or limited, visibility of the turbines. Notably, the effect on views from the closest area, Bellsmyre, is likely to generally be not significant. However, the maximum medium-high magnitude of change combined with the high sensitivity may lead to a major and **significant** effect on views from some locations where there is clear visibility of the Proposed Development, as seen at Viewpoint 3.

Cumulative Effect

5.10.443 The closest wind farms to Dumbarton are the operational sites at Corlic Hill (Inverclyde) and Priestside Farm, approximately 7.5 km and 6 km away respectively. which are shown on the cumulative ZTVs to have intermittent theoretical visibility from south-west-facing slopes in the settlement. In reality, these sites do not have a notable effect on views from Dumbarton. The consented Braco wind farm has negligible theoretical visibility from 17.5 km away, and Middleton/Neilston have very intermittent theoretical visibility from 19.5 km away. Other relevant wind farms lie further away and would not contribute to a significant cumulative effect on views from Dumbarton. The cumulative effect at Viewpoint 3 is assessed to be not significant, and the cumulative effect on views from Drymen would also be **not significant**.

Night-time Effect

5.10.444 Viewpoint 3 (A82 near Bellsmyre Roundabout (A813 junction)) is assessed to have a **significant** effect in both the 2,000 cd and 200 cd scenarios for residential viewers, and this is likely to apply to residential parts of Dumbarton that lie closer to the Proposed Development and gain clear visibility of it at night-time. The effect on more distant parts of the settlement, beyond approximately 6 km away, is likely to become **not significant** in the 200 cd scenario, and the effect on those parts of the settlement that have higher levels of baseline lighting may be **not significant** at closer proximity (e.g. from around 4 km away) in the 200 cd scenario. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, the effect in both scenarios would be **not significant**.

Settlement: Gartocharn

Baseline and Sensitivity

5.10.445 The small settlement of Gartocharn is approximately 5.3 km to the north of the Proposed Development, as shown on **Figure 5.6b**. Gartocharn lies within LLTNP and the boundary of the Loch Lomond NSA, which follows the A811, passes through the village. Gartocharn is within the Rolling Farmland - Loch Lomond & the Trossachs LCT, and is approximately 1.5 km to the south of Loch Lomond. The distinctive landform of Duncryne Hill (Viewpoint 7) lies less than 1 km to the east of Gartocharn. The nearest viewpoint to Gartocharn is Duncryne Hill (Viewpoint 7); this does not represent the views that would be gained from the settlement, being a considerably more elevated and open outlook of the Proposed Development. Settlements are accorded a high sensitivity as visual receptors due to the

residential nature of viewers, and Gartocharn is therefore considered to have a **high** sensitivity.

Magnitude of Change

5.10.446 The ZTV (see **Figure 5.13b**) indicates fairly consistent theoretical visibility of the Proposed Development across Gartocharn. However, the gently undulating nature of the landform, which lacks steep slopes, combined with screening by buildings and the vegetation that characterises the village, means that there would be very little actual clear and open visibility of the Proposed Development from the majority of the settlement. Some views, generally of the upper parts of turbines, may be available; where this is the case, the magnitude of change is likely to be a maximum of **medium-high**. This level of change on views would be restricted to the specific areas that gain open views and elsewhere, where there is more limited actual visibility of the Proposed Development, the magnitude of change is likely to be **low** Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility of the Proposed Development.

Significance of the Effect

5.10.447 The effect of the Proposed Development on views from the majority of Gartocharn would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium-high magnitude of change combined with the high sensitivity of the receptor may lead to a major and **significant** effect on views from some limited locations where there is clear and open visibility of the Proposed Development.

Cumulative Effect

5.10.448 The closest site to Gartocharn is the small scale Priestside Farm wind farm, which is approximately 16 km away and is shown on the cumulative ZTV to have no theoretical visibility of the Proposed Development. Other sites that lie relatively close to Gartocharn are Corlic Hill (Inverclyde), over 18 km away, with no theoretical visibility, and Shelloch, 23 km away, with negligible theoretical visibility. Other relevant wind farms lie further away and would not contribute to a significant cumulative effect on views. The cumulative effect on views from Gartocharn would be **not significant**.

Night-time Effect

5.10.449 A night-time visualisation has not been produced for Gartocharn and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment of effects on views from this settlement and the wider night-time viewpoint assessment throughout the Study Area. A combination of the limited visibility of the Proposed Development and baseline lighting is likely to ensure that the night-time effect in the 200 cd scenario would generally be **not significant**, although there may be some very limited significant effects where there is clear visibility of the Proposed Development and the baseline night-time environment is dark. There are also likely to be some **significant** effects in the 2,000 cd scenario. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, the effect in both scenarios would be **not significant**.

Settlement: Greater Glasgow (including Johnston, Kilbarchan, Linwood and Paisley)

Baseline and Sensitivity

5.10.450 While the great majority of Greater Glasgow does not have potential to undergo a significant effect as a result of the Proposed Development, there are some areas on the western fringe of the conurbation (including Johnston, Kilbarchan, Linwood and Paisley) that may gain visibility of the Proposed Development due to the nature of landform and the pattern of built development. There is no viewpoint located in Greater Glasgow.

5.10.451 Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers, and Greater Glasgow is therefore considered to have a **high** sensitivity.

Magnitude of Change

5.10.452 The ZTV (see **Figure 5.13b**) indicates variable levels of theoretical visibility from these westernmost parts of Greater Glasgow, ranging from very limited and intermittent visibility of blades only to fairly consistent visibility of blades and hubs. The closest theoretical visibility (other than areas of negligible theoretical visibility) is gained from a minimum of approximately 12 km away, in Paisley and Linwood. A combination of screening by buildings and vegetation, the landform on which these built-up areas are located, and the landform of the southern Kilpatrick Hills ensures that actual visibility of the Proposed Development would be limited. However, some views of the Proposed Development may be gained from some more elevated locations, and where clear and open views towards the Proposed Development are available, the maximum magnitude of change on views is likely to be **medium.** This level of change on views would be restricted to specific elevated areas that are orientated towards the Site and gain open views of the Proposed Development; elsewhere, where there is limited theoretical and actual visibility, the magnitude of change is likely to be **low**. The great majority of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility of the Proposed Development.

Significance of the Effect

5.10.453 The effect of the Proposed Development on views from the great majority of the western edge of Greater Glasgow would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium magnitude of change combined with the high sensitivity may lead to a major/moderate and **significant** effect on views from some very limited locations where there is clear and open visibility of the Proposed Development. A significant effect would not arise beyond approximately 15 km away.

Cumulative Effect

5.10.454 The part of Greater Glasgow that may undergo some effect as a result of the Proposed Development is not notably affected by cumulative wind farms, with Middleton and Neilston being the closest sites at approximately 8-10 km away and the consented Braco wind farm approximately 8 km away. Other relevant wind farms lie further away and will not contribute to a significant cumulative effect on views. Views of all wind farms are, as with the Proposed Development, greatly restricted by buildings and vegetation. The cumulative effect on views from Greater Glasgow would be **not significant** due to the

lack of notable visibility and influence of other wind farms and the Proposed Development itself.

Night-time Effect

5.10.455 A night-time visualisation for this settlement has not been produced and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the wider night-time viewpoint assessment, and this indicates that the night-time effect in any scenario is likely to be **not significant** due to the distance of the settlement from the Proposed Development.

Settlement: Greenock/Port Glasgow

Baseline and Sensitivity

5.10.456 The settlement of Greenock/Port Glasgow is a minimum of approximately 9 km to the south-west of the Proposed Development, as shown on **Figure 5.6b**. This is a densely populated linear settlement that extends along the southern side of the Firth of Clyde and rises steeply up from the shore, ranging in elevation from water level up to over 100 m AOD with a strong north-north-eastwards orientation. Overall, the settlement extends for approximately 12 km along the Firth of Clyde, with varying levels of visibility of the Proposed Development. Viewpoint 18 (Port Glasgow) is located towards the eastern end of the settlement while Viewpoint 25 (Lyle Hill, Greenock) is towards the western end.

5.10.457 Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers, and Greenock/Port Glasgow is considered to have a **high** sensitivity.

Magnitude of Change

5.10.458 The ZTV (see **Figure 5.13b**) indicates fairly consistent theoretical visibility of the Proposed Development across Greenock/Port Glasgow other than the western end, where the landform of Lyle Hill (Viewpoint 25) screens visibility. This theoretical visibility is gained between 9 km and 18 km away from the Proposed Development. Viewpoint 18 (Port Glasgow) is located at the eastern end of the settlement at a relatively high elevation, and gains long, open view towards the Proposed Development. The magnitude of change at this viewpoint is assessed to be **medium**, and this maximum level of change would also apply to those parts of Port Glasgow from where a clear view of the Proposed Development is gained. Many parts of this area would not gain clear views of the Proposed Development due to screening by buildings and vegetation. Less elevated areas are also likely to gain more limited visibility.

5.10.459 Further westwards, as seen at Viewpoint 25 (Lyle Hill) the magnitude of change would reduce as distance from the Proposed Development increases and it becomes a less apparent feature in the view. The Proposed Development would also be more peripheral to the main orientation of the view as it lies further to the east than the main landform orientation. The magnitude of change at Viewpoint 25 is assessed to be **medium-low**, and this level of change would be the maximum found on the western parts of Greenock/Port Glasgow. The outlook from Viewpoint 25 is considerably more open than would generally be gained from this part of the settlement, and the majority of views would have a maximum **low** magnitude of change due to limited, peripheral and distant visibility.

5.10.460 The transition from a medium to a medium-low magnitude of change would not occur at any specific location in Greenock/Port Glasgow but would vary according to the level and type of visibility and how peripheral the Proposed Development is to the main orientation of the view. Broadly speaking, where a clear view of the Proposed Development is gained from up to the area around Ladyburn, approximately 12.5 km away from the Proposed Development, the magnitude of change is likely to be a maximum of **medium**. Around Ladyburn, the landform turns to have a northwards orientation, and here the Proposed Development would be increasingly peripheral to the main direction of views. The north-north-eastwards orientation of landform does return beyond Ladyburn, but here the increased distance would ensure more limited visibility of the Proposed Development.

5.10.461 Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility of the Proposed Development.

Significance of the Effect

5.10.462 The effect of the Proposed Development on views from the majority of Greenock/Port Glasgow would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium magnitude of change combined with the high sensitivity may lead to a major/moderate and **significant** effect on views from some locations towards the eastern end of the settlement where there is clear and open visibility of the Proposed Development, as seen at Viewpoint 18.

Cumulative Effect

5.10.463 The closest wind farm to Greenock/Port Glasgow is Corlic Hill (Inverclyde), a minimum of just under 2 km away from the southern edge of the settlement with intermittent/very intermittent theoretical visibility. This is particularly limited at the eastern end of the settlement, which is where the Proposed Development would have most effect. Moreover, the strong northern orientation of Greenock/Port Glasgow ensures that in reality, Corlic Hill (Inverclyde) has very limited effect on views. Other wind farms lie further away and will not contribute to a significant cumulative effect on views. The assessments of Viewpoints 18 and 25 conclude that the cumulative effect of the Proposed Development on these views would be **not significant** in any scenario and this assessment would also apply to wider views from Greenock/Port Glasgow.

Night-time Effect

5.10.464 Viewpoint 17 (Port Glasgow) is assessed to have a **significant** effect in the 2,000 cd scenario and a **not significant** effect in the 200 cd scenario for residential viewers, while Viewpoint 25 (Lyle Hill, Greenock) would have a **not significant** effect in both scenarios. Viewpoint 17 is a borderline significant effect in the 2,000 cd scenario, and it is likely that the majority of view from this settlement would have a **not significant** effect in both scenarios due to a combination of distance and high baseline light levels. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, the effect in both scenarios would also be **not significant**.

Settlement: Houston

Baseline and Sensitivity

5.10.465 Houston (including Craigends and Crosslee) is approximately 12 km south of the Proposed Development, as shown on **Figure 5.6b**. The landform on which Houston is built is gently undulating, with more pronounced landform in the western part of the settlement where the LCT is Rugged Upland Farmland, whereas the eastern part is within the more uniform Agricultural Plain - Glasgow & Clyde Valley LCT. The River Gryfe runs east-west through the settlement. There is no viewpoint located in Houston.

5.10.466 Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers, and Houston is therefore considered to have a **high** sensitivity.

Magnitude of Change

5.10.467 The ZTV (see **Figure 5.13b**) indicates sometimes intermittent theoretical visibility of the Proposed Development from the settlement at a minimum of approximately 12 km away. A combination of screening by buildings and vegetation, the gently undulating landform on which the settlement is built, and the landform of the southern Kilpatrick Hills ensures that actual visibility of the Proposed Development would be limited. However, some views of the Proposed Development may be gained from more elevated locations, and where clear views towards the Proposed Development are available, the maximum magnitude of change is likely to be **medium.** This level of change would be restricted to specific elevated areas that are orientated towards the Site and gain open views of the Proposed Development while elsewhere the magnitude of change is likely to have a maximum **low** level. Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility.

Significance of the Effect

5.10.468 The effect of the Proposed Development on views from the majority of Houston would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium magnitude of change combined with the high sensitivity of the receptor may lead to a major/moderate and **significant** effect on views from some limited locations where there is clear and open visibility of the Proposed Development.

Cumulative Effect

5.10.469 The closest sites to Houston are the relatively small turbines of Priestside Farm and Braco wind farms, 8.5 km and 9 km away respectively, which are shown on cumulative ZTVs to have no theoretical visibility from the settlement. Other sites that lie relatively close by are Corlic Hill (Inverclyde) and Neilston, over 11.6 km and 12 km away respectively, both with very intermittent theoretical visibility. Other relevant wind farms lie further away and will not contribute to a significant cumulative effect on views from Houston The cumulative effect on views from Houston would be not significant due to the lack of notable visibility and influence of other wind farms.

Night-time Effect

5.10.470 A night-time visualisation for this settlement has not been produced and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the wider night-time viewpoint assessment, and this indicates that the night-time effect in any scenario is likely to be **not significant** due to the distance of the settlement from the Proposed Development.

Settlement: Killearn

Baseline and Sensitivity

5.10.471 Killearn is approximately 9 km to the north-east of the Proposed Development (as shown on **Figure 5.6b**) and lies within the Lowland River Valleys – Central LCT. Killearn is located in an elevated position on the upper northern slopes of the Blane Water valley and has a strong landform orientation to the south and south-west, towards the Kilpatrick Hills. To the east of Killearn, the ground rises up to the Campsie Fells and Dumgoyne Hill (Viewpoint 16) is just under 3 km to the south-east of the settlement. There is no viewpoint located within Killearn. However, Viewpoint 14 (WHW near Drymen) and Viewpoint 22 (Balfron Cemetery), both give an impression of the type of visibility of the Proposed Development that can be gained in open views from this undulating lowland area. These viewpoints gain a more open outlook than is likely to be gained from Killearn but provide an indication of the maximum level of visibility that could be apparent. Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers, and Killearn is therefore considered to have a **high** sensitivity.

Magnitude of Change

5.10.472 The ZTV (see **Figure 5.13b**) indicates consistent theoretical visibility of the Proposed Development across Killearn, and the underlying landform of the settlement is sloped towards the Kilpatrick Hills. This means that while the great majority of views of the Proposed Development would be screened and filtered by buildings and vegetation within and around the settlement, it is likely that some views of the Proposed Development would be available from elevated points within and on the periphery of Killearn. The assessment for Viewpoint 14, which is located slightly closer to the Proposed Development than Killearn, concludes that the Proposed Development would have a medium magnitude of change. The magnitude of change at Viewpoint 22, which is approximately 13.3 km away from the Proposed Development and thus at a greater distance than Killearn also has a medium level.

5.10.473 Where clear views towards the Proposed Development are gained, the magnitude of change on views is therefore likely to be a maximum of **medium**, but this level of change would be restricted to the very specific parts of the settlement that gain similarly open views to those seen at Viewpoint 14. Elsewhere, where there is more limited actual visibility of the Proposed Development, the magnitude of change is likely to have a **low** level. Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility of the Proposed Development.

Significance of the Effect

5.10.474 The effect of the Proposed Development on views from the majority of Killearn would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium magnitude of change combined with the high sensitivity of the receptor may lead to a major/moderate and **significant** effect on views from some limited locations where there is clear and open visibility of the Proposed Development.

Cumulative Effect

5.10.475 The closest wind farm to Killearn is the consented site at Shelloch, 13.4 km away, which is shown on the cumulative ZTV to have negligible visibility from the settlement. Earlsburn and Earlsburn North are approximately 14.4 km away and have no theoretical visibility. Other relevant wind farms lie further away and will not contribute to a significant cumulative effect on views. The cumulative effect on views from Killearn would be **not significant** due to the lack of notable visibility and influence of other wind farms.

Night-time Effect

5.10.476 A night-time visualisation has not been produced for Killearn and a full assessment of night-time effects has not been carried out. However, overall conclusions can be drawn from the day-time assessment of effects on views from this settlement and the wider night-time viewpoint assessment throughout the Study Area. In the 200 cd scenario, a combination of the reduced light source, limited visibility of the Proposed Development and baseline lighting in the settlement is likely to ensure that the night-time effect would be **not significant.** There may be limited **significant** effects in the 2,000 cd scenario where there is clear visibility of the Proposed Development and the baseline night-time environment is dark. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, these effects would remain the same.

Settlement: Langbank

Baseline and Sensitivity

5.10.477 The settlement of Langbank is approximately 7.2 km to the south-west of the Proposed Development (as shown on **Figure 5.6b**) and lies on the southern side of the Firth of Clyde within the Raised Beach - Glasgow & Clyde Valley LCT. The landform on which the settlement is built is orientated strongly north-eastwards and ranges from water level up to approximately 70 m AOD. Viewpoint 10 (Langbank) is located on the northern edge of the settlement, overlooking the Firth of Clyde across the A8 dual carriageway.

5.10.478 Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers, and Langbank is therefore considered to have a **high** sensitivity.

Magnitude of Change

5.10.479 The ZTV (see **Figure 5.13b**) indicates consistent theoretical visibility of the Proposed Development across Langbank. However, many views of the Proposed Development would be screened and filtered by buildings and vegetation within and around the settlement, and Viewpoint 10 represents the highest type of visibility that may be gained from Langbank due to the open aspect of the outlook. The assessment for Viewpoint 10

concludes that the Proposed Development would have a medium-high magnitude of change on the view. Where clear and open views towards the Proposed Development are available from Langbank, similar to those seen at Viewpoint 10, the magnitude of change on views is also likely to be **medium-high**. However, this level of change on views would be restricted to the specific areas that gain similarly open views and elsewhere, where there is more limited actual visibility of the Proposed Development, the magnitude of change is likely to have a **low** level. Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility.

Significance of the Effect

5.10.480 The effect of the Proposed Development on views from the majority of Langbank would be **not significant** due to lack of, or limited, visibility of the turbines. However, the maximum medium-high magnitude of change combined with the high sensitivity may lead to a major and **significant** effect on views from some limited locations where there is clear and open visibility of the Proposed Development, as seen at Viewpoint 10.

Cumulative Effect

5.10.481 The closest relevant wind farm to Langbank is the small site at Priestside Farm, just over 5 km away, with Corlic Hill (Inverclyde) the closest larger site lying approximately 7.5 km away. Neither of these sites are visible at Viewpoint 10 and cumulative ZTVs show that they have negligible visibility from Langbank. Other wind farms lie further away and would not contribute to a significant cumulative effect. The assessment at Viewpoint 10 concludes that the cumulative effect of the Proposed Development on this view would be **not significant** in any scenario due to the lack of visibility of other relevant wind farms and this assessment would also apply to wider views from Langbank.

Night-time Effect

5.10.482 Viewpoint 10 (Langbank) is assessed to have a **significant** effect in the 2,000 cd scenario and a **not significant** effect in the 200 cd scenario for residential viewers, and this would also apply to those parts of the wider settlement that gain clear visibility of the Proposed Development. However, if mitigation relating to changes in light intensity due to vertical elevation angle is achieved, the effect in both scenarios would be **not significant**.

Settlement: Luss

Baseline and Sensitivity

5.10.483 The settlement of Luss is approximately 14 km to the north of the Proposed Development (as shown on **Figure 5.6b**), and lies within LLTNP and the Loch Lomond NSA. Luss is a popular tourist destination, with a number of facilities including a camp site, boat trips, accommodation, food and parking. Viewpoint 23 (Luss campsite) is located towards the north of the settlement.

5.10.484 Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers, and Luss is therefore considered to have a **high** sensitivity.

Magnitude of Change

5.10.485 The ZTV (see **Figure 5.13b**) indicates limited theoretical visibility of the Proposed Development from Luss, with the landform of the headland that projects into the loch to the south of the village providing screening. Visibility is further reduced by the islands that lie between Luss and the Proposed Development and by woodland that surrounds Luss and covers the headland and islands. The landform and overall pattern of Luss is orientated to the east, across Loch Lomond, rather than south-eastwards, towards the Proposed Development. These factors ensure that there would be very limited actual visibility of the Proposed Development from the great majority of the settlement. Viewpoint 23, which gains a considerably more open outlook due to its location to the north of the bay, where the screening effect of the headland is less apparent, represents the highest type of visibility that may be gained from Luss.

5.10.486 The assessment for Viewpoint 23 concludes that the Proposed Development would have a **medium-low** magnitude of change on the view, and this would also be the highest magnitude of change to arise in Luss. This level of change on views would not be widespread, being restricted to very specific locations at the northern end of the village that gain similarly open views. For the majority of the village, where there is considerably more limited theoretical and actual visibility of the Proposed Development, the magnitude of change is likely to have a maximum **low** level. Many parts of the settlement would have no change or a **negligible** magnitude of change due to lack of, or very limited, visibility.

Significance of the Effect

5.10.487 The effect of the Proposed Development on views from Luss would be moderate and **not significant** due to the factors that lead to the maximum medium-low magnitude of change despite the high sensitivity of the settlement. A combination of a medium-low magnitude of change and high sensitivity can lead to an effect that is significant or not significant; in this case the effect is considered to be not significant for the reasons described at Viewpoint 23.

Cumulative Effect

5.10.488 The closest relevant wind farm to Luss is Corlic Hill (Inverclyde), which is over 21 km away and is shown on the cumulative ZTV to have no theoretical visibility from Luss. Other wind farms lie further away and will not contribute to a significant cumulative effect. The cumulative assessment at Viewpoint 23 concludes that the cumulative effect of the Proposed Development on this view would be **not significant** in any scenario and this assessment would also apply to wider views from Luss.

Night-time Effect

5.10.489 Viewpoint 23 (Luss Campsite) is assessed to have a **not significant** effect in both the 200 cd and 2,000 cd scenarios and this would also apply to the wider settlement. Allowing for potential changes in light intensity due to mitigation (vertical elevation angle from the turbine light) the effects in both scenarios would remain **not significant**.

Settlement: Vale of Leven (incorporating Alexandria, Balloch, Bonhill and Renton)

Baseline and Sensitivity

5.10.490 Vale of Leven (shown on **Figure 5.6b**) encompasses a number of smaller settlements including Alexandria, Balloch, Bonhill and Renton. These settlements are grouped together as Vale of Leven in the National Records of Scotland dataset that has been used to identify settlement boundaries in this assessment. Bonhill, which forms the eastern edge of Vale of Leven, is the closest urban area to the Proposed Development, lying a minimum of approximately 2.1 km away from the nearest turbine. Vale of Leven lies in the valley of the River Leven with the majority of the settlement on the valley floor, although Bonhill extends up onto the lower slopes of the Kilpatrick Hills. The eastern edge of Vale of Leven abuts the Rugged Moorland Hills LCT within which the Proposed Development lies, while the western edge is bounded by the A82 the northern edge (Balloch) abuts Loch Lomond. Viewpoint 5 (A811 Near Balloch) is in the northern part of Vale of Leven and provides an indication of the higher type of theoretical visibility that may be gained from the settlement.

5.10.491 Settlements are accorded a high sensitivity as visual receptors due to the residential nature of viewers, and Vale of Leven is therefore considered to have a **high** sensitivity.

Magnitude of Change

5.10.492 Theoretical visibility of the Proposed Development from Vale of Leven reflects the landform on which the settlement is built. Bonhill, the area that is closest to the Proposed Development, is built on the slopes of the Kilpatrick Hills and has a strong westwards orientation, across the River Leven and away from the Proposed Development. Here, the ZTVs show theoretical visibility of limited numbers of turbines (see **Figure 5.13b**), due to the steeply rising landform. In reality, the great majority of this theoretical visibility would be screened by intervening houses and vegetation, and the strong westwards orientation and elevation of the houses ensures that their views are not focussed on the Proposed Development but across the river valley.

5.10.493 Other parts of the settlement have higher theoretical visibility. On the valley floor, around the river, and the western side of the river, the landform is either relatively level or orientated gently eastwards, towards the Proposed Development, and there are likely to be some views of the Proposed Development from a minimum of approximately 3.5 km away, although screening by buildings and vegetation screens and filters many views.

5.10.494 Viewpoint 5 represents the higher type of visibility that may be gained from Vale of Leven due to the relatively open aspect of the outlook across the roundabout. The assessment for Viewpoint 5 concludes that the Proposed Development would have a medium-high magnitude of change on the view, and where clear and open views towards the Proposed Development are available, similar to those seen at Viewpoint 5 or from further away but with clear visibility, the magnitude of change on views is also likely to be **medium-high**. This level of change on views would be restricted to specific locations such as along the main road network where views are more open. Elsewhere, where visibility is considerably more limited, the magnitude of change is likely to have a maximum **low** level. A maximum low magnitude of change is likely to apply to the majority of Bonhill due to limited theoretical visibility and strong westwards orientation of houses, away from the

Proposed Development, as well as further screening of views by buildings and vegetation. Many parts of the settlement would have no change or a **negligible** change due to lack of, or very limited, visibility of the Proposed Development.

Significance of the Effect

5.10.495 The effect of the Proposed Development on views from the majority of Vale of Leven would be **not significant** due to lack of, or limited, visibility of the turbines. Notably, the effect on views from the closest area, Bonhill, is likely to generally be not significant. However, the maximum medium-high magnitude of change combined with the high sensitivity of the receptor may lead to a major and **significant** effect on views from some limited locations where there is clear and open visibility of the Proposed Development, as seen at Viewpoint 5.

Cumulative Effect

5.10.496 The cumulative assessment is based on the theoretical visibility of other wind farms as shown on cumulative ZTVs rather than the situation shown at Viewpoint 5, which does not fully illustrate the potential cumulative situation on views from within the settlement.

5.10.497 The closest wind farms to Vale of Leven are the operational sites at Corlic Hill (Inverclyde) and Priestside Farm, approximately 10 km and 8 km away respectively. which are shown on the cumulative ZTVs to have theoretical visibility from the settlement. However, in reality, these sites do not have a notable effect on views. Other relevant wind farms lie further away and would not contribute to a significant cumulative effect. The cumulative effect on views from Vale of Leven would be **not significant** due to the lack of notable visibility and influence of other wind farms.

Night-time Effect

5.10.498 Viewpoint 5 (A82 near Bellsmyre Roundabout (A813 junction)) is assessed to have a **significant** effect in the 2,000 cd scenario and **not significant** effect in the 200 cd scenario for residential viewers, and this is likely to apply to those parts of the wider settlement of Vale of Leven that have high visibility of the Proposed Development. Where visibility is more limited – in Bonhill for example – the effect is likely to be **not significant** in both scenarios due to lack of or very limited visibility of the lighting combined with a considerable level of baseline lighting. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, the effect in both scenarios would be **not significant**.

Road: A82

Baseline and Sensitivity

5.10.499 The 269 km long A82 runs from Glasgow to Inverness via Fort William (as shown on **Figures 5.6a** and **5.6b**) with the section between Glasgow and Crianlarich lying within the 45 km study area It is not identified as a scenic/tourist route but is the route by which the majority of people will experience LLTNP and is also a major route between the central belt and the Highlands. The A82 passes through widely varied landscapes within the study area, including the urban areas of Glasgow; the Lowland Loch Basin and Straths and Glens with Lochs LCTs that cover Loch Lomond; and the Upland Glens -

Loch Lomond & the Trossachs LCT of Glen Falloch. Much of the route within the 45 km study area passes through and overlooks LLTNP and the Loch Lomond NSA. Viewpoints 3 (A82 near Bellsmyre Roundabout (A813 junction)) and 32 (Tarbet) are on the A82.

5.10.500 There is very intermittent theoretical visibility of operational/consented wind farms at Corlic Hill (Inverclyde), Priestside Farm, Braco, Neilston and Middleton from a minimum of 8.8 km away; as seen at Viewpoint 3, these sites have very limited and distant influence on views from the road. Theoretical visibility is also gained from urban areas, where the road passes through buildings and vegetation that screen views. Operational and consented wind farms are therefore discounted from the assessment. Wind farms beyond 20 km away would not have potential to contribute to a significant cumulative effect.

5.10.501 The value of views from the A82 is medium-high. This road is not identified as a scenic route but does, in part, pass through and overlook LLTNP and the Loch Lomond NSA and is used by people who are visiting LLTNP as well as providing access to a number of tourist facilities. The susceptibility to change is medium-high as some people who gain views from the road are likely to have a specific focus on the scenery and surrounding landscape. The combination of the medium-high susceptibility to change and the medium-high value of views results in an overall **medium-high** sensitivity for the A82. This is an unusual level of sensitivity for a road that is not a tourist route as views from roads are generally considered to be of a lower sensitivity. It should be noted that while the road as a whole is attributed a medium-high sensitivity, some parts of the route have a localised reduced sensitivity as they do not lie within or overlook LLTNP or NSAs, and have a developed, urban setting.

Magnitude of Change

5.10.502 The magnitude of change on views from the A82 would vary dependent on the direction of travel, and the northbound (Glasgow to Crianlarich) and southbound (Crianlarich to Glasgow) routes are therefore described separately.

5.10.503 Travelling **northwards**, the ZTV (as shown on **Figures 5.13a** and **5.13b**) indicates very limited and intermittent theoretical visibility within Glasgow, much of which is blade only, from between 12 km and 20 km away. This level of visibility combined with screening by buildings and vegetation would result in a maximum **low** magnitude of change on views. Theoretical visibility ceases at Drumchapel, on the north-western edge of Glasgow, until the A82 reaches the eastern edge of Dumbarton. From here until Balloch, over a stretch of approximately 8 km, the ZTV shows fairly consistent theoretical visibility. However, over the stretch between the eastern edge of Dumbarton and the Lomondgate roundabout, visibility is almost completely screened, largely by woodland along the road but also, in places, by buildings. There are several points where a very brief and limited view of the Proposed Development may be gained but this would be angled or perpendicular to the direction of travel and with heavy screening. Moreover, this is a busy dual carriageway through an urban area, and there is a high level of activity on the road that distracts travellers from focussing on longer, glimpsed, views. This type of visibility combined with screening by buildings and vegetation would result in a maximum **medium-low** magnitude of change.

5.10.504 At the Lomondgate roundabout, visibility opens up for approximately 900 m, with less screening along the road, and views such as those seen at Viewpoint 3 would be available intermittently. However, the Proposed Development would lie behind the northbound

traveller over this stretch, and visibility would therefore be oblique and briefly glimpsed. The **medium-high** magnitude of change assessed at Viewpoint 3 would be the maximum found on this stretch of the road, although this level of change would be very rare due to the location of the Proposed Development in relation to the road and the moving nature of the visibility. Visibility would be higher in winter as the woodland is largely deciduous.

5.10.505 After the River Leven crossing, woodland cover increases and the glimpses would become very intermittent. As the road crosses the A812, it turns northwards and roadside woodland becomes more dense, with views heavily screened. This screening is fairly continuous, including one long section of screen fencing, over a 5 km long stretch, and only brief glimpse, moving views would be available. The Proposed Development would lie perpendicular to or behind the A82 over this stretch, peripheral to the direction of views. Where a view is gained, the Proposed Development would be seen from a minimum of approximately 4 km away, and the maximum magnitude of change would be **medium-high**, as assessed at Viewpoint 3. At the Stoneymollan roundabout in Balloch, where the A811 meets the A82, the Proposed Development would pass behind northbound drivers and it would have no further visibility.

5.10.506 In summary, for northbound travellers on the A82, the great majority of the route would not be affected by the Proposed Development. There would, however, be some effects on the stretches of the route that lie in closer proximity to the Proposed Development, as follows:

- a stretch within Glasgow where a very intermittent maximum **low** magnitude of change may arise;
- a stretch between the eastern edge of Dumbarton and the Lomondgate roundabout where very intermittent and brief glimpses with a maximum **medium-low** magnitude of change may arise;
- a stretch of approximately 900 m between the Lomondgate roundabout and the River Leven crossing where a very intermittent maximum **medium-high** magnitude of change may arise; and
- a stretch between the River Leven crossing and the Stoneymollan roundabout where very intermittent and brief glimpses with a maximum **medium-high** magnitude of change may arise.

5.10.507 Travelling **southwards** from Crianlarich, the first visibility of the Proposed Development would be on the eastern edge of Tarbet, near Viewpoint 32 (Tarbet). The magnitude of change at this viewpoint is assessed to be **low**, and this would also apply to views from this stretch of the road. Visibility then ceases until the road rounds Rubha Mor, just north of Inverbeg. From here until Luss, the ZTV shows fairly continuous theoretical visibility, but in reality there is extensive woodland screening along the road as well as in the middle-ground of the view (e.g. on the islands), and a combination of this, the distance of the Proposed Development from the road (a minimum of 15 km), and the moving nature of viewers, ensures that the maximum magnitude of change would remain **low**.

5.10.508 Southwards from Luss for approximately 9 km, to the south of Arden, visibility continues to be heavily screened by woodland along the road, and any visibility would be gained in very brief and filtered glimpses. As much of the woodland is deciduous, this type of visibility would be more likely to arise in winter. The maximum magnitude of change on these views would be **medium**, with the Proposed Development lying between 15 km and 8 km away, but this would arise extremely intermittently. To the south of Arden,

woodland screening is intermittently reduced and visibility of the Proposed Development would increase slightly over a stretch of approximately 3 km, with views available across the loch as the road passes Cameron House and Duck Bay. Visibility would, however, remain intermittent/very intermittent due to the woodland. Where there is visibility of the Proposed Development, the maximum magnitude of change would be **medium**, moderated by the very brief, glimpsed and filtered views.

5.10.509 Before the Stoneymollan roundabout, woodland cover increases and the glimpses would become very intermittent with views heavily screened as the A82 passes the settlement of Vale of Leven. As assessed for northbound travellers, this screening is fairly continuous over a 5 km long stretch, and only brief glimpsed, moving views would be available. The Proposed Development would lie angled or perpendicular to or behind the A82 over this stretch, and would be peripheral to the direction of views. Where a rare view is gained, the Proposed Development would be seen from a minimum of approximately 4 km away, and the maximum magnitude of change would be **medium-high**. At the River Leven crossing, visibility opens up for approximately 900 m, as far as the A813 roundabout, with less screening along the road. Viewpoint 3 lies on this stretch, showing the highest type of visibility, and where views such as this are gained, the maximum magnitude of change would be **medium-high** as assessed at the viewpoint.

5.10.510 At the Lomondgate roundabout, visibility is almost completely screened by buildings and woodland. There are several points where a very brief and limited view of the Proposed Development may be gained but this would be angled or perpendicular to the direction of travel and with heavy screening. Moreover, as noted for northbound travellers, this is a busy dual carriageway through an urban area, and there is a high level of activity along the road that distracts travellers from focussing on longer, glimpsed views. This type of visibility combined with screening by buildings and vegetation would result in a maximum **medium-low** magnitude of change on views. This type of visibility would continue until theoretical visibility ceases on the eastern edge of Dumbarton, which is also where the Proposed Development also passes behind the southbound traveller.

5.10.511 In summary, for southbound travellers on the A82, the great majority of the route would not be affected by the Proposed Development. There would, however, be some effects on the stretches of the route that lie in closer proximity to the Proposed Development, as follows:

- two stretches at Tarbet and between Rubha Mor and Luss where an intermittent maximum **low** magnitude of change may arise;
- a stretch between Luss and the Stoneymollan roundabout where very intermittent and brief glimpses with a maximum **medium** magnitude of change may arise;
- a stretch between the Stoneymollan roundabout and the River Leven crossing where very intermittent and brief glimpses with a maximum **medium-high** magnitude of change may arise;
- a stretch of approximately 900 m between the River Leven crossing and the Lomondgate roundabout where a very intermittent maximum **medium-high** magnitude of change may arise; and
- a stretch between the Lomondgate roundabout and the eastern edge of Dumbarton where very intermittent and brief glimpses with a maximum **medium-low** magnitude of change may arise.

Significance of the Effect

5.10.512 The effect of the Proposed Development on the great majority of views from the A82 would be **not significant** due to the maximum low magnitude of change. There is, however, a stretch approximately 900 m long to the west of the Lomondgate roundabout (in the vicinity of Viewpoint 3) where the effect on views would be intermittently **significant** for travellers in either direction due to the factors considered in the maximum medium-high magnitude of change and the medium-high sensitivity of the views. There may also be very brief glimpsed **significant** effects on views from stretches of both directions between the River Leven crossing and the Stoneymollan roundabout, and the southbound route between Luss and the Lomondgate roundabout due to the maximum medium-high magnitude of change and the medium-high sensitivity of views. These effects are more likely to be significant in winter when the trees that provide extensive woodland screening are bare, but would remain very intermittent.

5.10.513 It is important to note that the stretch of the A82 between the Lomondgate and Stoneymollan roundabouts, where significant effects are more likely to arise, is outwith LLTNP and the Loch Lomond NSA, and passes through a developed, urban setting.

Cumulative Effect

5.10.514 While there is theoretical visibility of two relevant operational wind farms from the A82, as described above, this is discounted from the assessment due to their very limited visibility. There is no theoretical visibility of relevant application stage sites that lie within 20 km of the route. The cumulative effect on views from the A82 would be **not significant**.

Night-time Effect

5.10.515 The A82 is widely used at night-time and there is therefore potential for the Proposed Development lighting to be seen by travellers. However, people using the road at night-time are less likely to be visiting tourist facilities within LLTNP and would therefore have a reduced sensitivity. Moreover, road users on all routes are considered to have a reduced sensitivity at night-time due to reduced 'dark adaptation' as a result of headlights of oncoming cars and lights within vehicles, as well as the moving nature of viewers. There is also street lighting and many other light sources along extensive parts of the route.

5.10.516 Night-time site visits and overall conclusions from the day-time assessment of effects on views from the A82 and the night-time viewpoint assessment for relevant road-based viewpoints indicate that for road-users, night-time effects are generally likely to be **not significant** in both the 200 and 2,000 cd scenarios due to the level of baseline lighting along the road, including moving vehicle lights. The parts of the route that run closest to the Proposed Development are within urban areas and are therefore subject to extensive baseline lighting, both on the road itself and in adjacent built-up areas, and this reduces the effect of lighting. The moving nature of viewers and generally fleeting, glimpsed nature of views also considerably reduces effects on people travelling on roads.

5.10.517 For southbound travellers, there may be very brief glimpses of lighting with a **significant** effect in the 2,000 cd scenario only between around the B812 turn-off and the Stoneymollan roundabout, where baseline lighting is more limited. These effects are likely to be very fleeting and glimpsed due to woodland screening, and would be **not**

significant in the 200 cd scenario due to the reduced light source and distance from the Proposed Development.

5.10.518 If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, all effects would be **not significant**.

Tourist Route: Clyde Sea Lochs Trail (A814/ B872/ B833)

Baseline and Sensitivity

5.10.519 The 104 km-long Clyde Sea Lochs Trail is a driving route that runs through the study area between Dumbarton in the south and Arrochar in the north with a loop around the Rosneath peninsula, following the Firth of Clyde, Gare Loch and Loch Long (as shown on **Figures 5.6a** and **5.6b**). This route is signposted and described on the VisitScotland[17] website. The Clyde Sea Lochs Trail passes through varied landscapes within the study area, including the Rolling Farmland with Estates – Argyll LCT that covers the northern side of the Firth of Clyde; the Open Ridges LCT that surrounds the Gare Loch and covers the Rosneath peninsula; and the Steep Ridges and Mountains and Steep Ridges and Hills LCTs found east of Loch Long. There are a number of settlements on the route, including Dumbarton, Helensburgh, Rhu, Faslane, Garelochhead, Clynder, Kilcreggan and Arrochar. HM Naval Base Clyde and the Royal Naval Armaments Depot at Coulport form an eye-catching, large-scale development near Garelochhead. The northernmost section of the route – approximately 5 km on the approach to Arrochar – lies within LLTNP and a short stretch to the south of this passes through the Loch Long (Coast) APQ. LLTNP is also overlooked from some parts of the route. There are no viewpoints on the Clyde Sea Lochs Trail.

5.10.520 There is theoretical visibility of several operational wind farms from the route, as shown on cumulative ZTVs; theoretical visibility of Corlic Hill (Inverclyde) from between 5.5 km and 20 km and Priestside Farm from between 5.5 km and 21 km. The other baseline sites that lie within 20 km of the route are shown to have no theoretical visibility other than negligible theoretical visibility of Neilston and Middleton wind farms, which are a minimum of 20 km away. Wind farms beyond 20 km away would not have potential to contribute to a significant cumulative effect on the route.

5.10.521 The value of views from the Clyde Sea Lochs Trail is high. Its identification as a scenic route implies a high value to views, and the sections that pass through or overlook designated areas have a formal value. Value is also added by the diverse range of views, including lochs, mountains, the development along the Firth of Clyde, and several settlements of varying character. The susceptibility to change is high as some people using the road may be people following the Tourist Route, with a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change and the high value of views results in a **high** sensitivity for the Clyde Sea Lochs Trail.

[17] https://roadtrips.visitscotland.com/clyde-sea-lochs-trail-route/

Magnitude of Change

5.10.522 The magnitude of change on views from the Clyde Sea Lochs Trail would vary dependent on the direction of travel, and the northbound (Dumbarton to Arrochar) and southbound (Arrochar to Dumbarton) routes are therefore described separately.

5.10.523 Travelling **northwards**, the ZTV (as shown on **Figures 5.13a** and **5.13b**) shows theoretical visibility of the Proposed Development at the start point of the route, which is on the A814 adjacent to Dumbarton East railway station. However, the Proposed Development would lie behind the northbound traveller at this point, and any oblique visibility would be screened by the buildings that characterise this urban area. This theoretical visibility continues over approximately 3.8 km as the A814 passes through Dumbarton; over this stretch, screening by buildings continues and the Proposed Development is consistently behind the northbound traveller. The maximum magnitude of change on views from this stretch would be **low**, which would arise only if an oblique glimpse of visibility was gained through buildings in Dumbarton.

5.10.524 There are then two short stretches of intermittent and limited theoretical visibility, one between Dumbarton and Cardross and the other to the north of Cardross. The maximum magnitude of change on views from these stretches would also be **low** as the Proposed Development remains behind the northbound traveller. Visibility then ceases altogether as the road passes through Helensburgh, Faslane and Garelochhead. At Garelochhead the route divides with one branch going northwards to Arrochar on the B872/A814 and the other going southwards around the Rosneath peninsula on the B833. The northwards branch to Arrochar gains no further visibility of the Proposed Development and there would be no effect on views from this part of the route.

5.10.525 The southwards branch loops around the Rosneath peninsula and may be travelled in either direction. Clockwise, there is a 2.5 km long stretch of theoretical visibility as the route passes through Rosneath. This is very limited in terms of the number of theoretically visible turbines (a maximum of one to three blades), is almost entirely blade only, and is approximately 17 km away from the Proposed Development with screening by buildings and vegetation, giving a maximum **low** magnitude of change. Travelling anti-clockwise round Rosneath, there is a 1.7 km stretch of theoretical visibility through Kilcreggan. This is partly blade only, is screened to a large degree by buildings and vegetation and is over 18 km away from the Proposed Development. The maximum magnitude of change here would also be **low**.

5.10.526 In summary, for northbound travellers on the Clyde Sea Lochs Trail, the great majority of the route would not be affected by the Proposed Development. Where it is visible, the maximum magnitude of change on views would be **low** due to its location in relation to the direction of travel, the limited and intermittent nature of actual visibility of the Proposed Development, and the distance of the Proposed Development from the route.

5.10.527 Travelling **southwards** from Arrochar, the first visibility of the Proposed Development would be on the Rosneath peninsula, travelling clockwise or anti-clockwise as described above. Visibility would be the same as for northbound travellers, with a maximum **low** magnitude of change. There is then no visibility until around Cardross, where there are two short stretches of theoretical visibility, one approximately 1.5 km long to the north of Cardross and the other 500 m long to the south of Cardross, both almost entirely blade only. The magnitude of change on views from these stretches would be maximum **low**

due to the limited level of visibility; screening by vegetation and buildings along the road; and the peripheral location of the Proposed Development in relation to the direction of travel, exacerbated by the foreshortening landform that rises to the north of the road and thus channels views to the south-east rather than the east, where the Proposed Development lies.

5.10.528 The final stretch of theoretical visibility for southbound travellers is approximately 3.8 km within Dumbarton. The great majority of this would gain no or negligible actual visibility of the Proposed Development due to screening by buildings in the built-up area. Any long views that are gained are generally channelled east or south-east along the direction of travel of the road rather than north-east towards the Site. There are some long views towards the Lang Craigs, which lie in the orientation of this east or south-east outlook, but open north-eastwards views towards the Proposed Development are rare. There are, however, several locations where longer north-eastwards views are available, such as where the road is elevated to cross the River Leven, and the Proposed Development would be clearly visible from here from a minimum distance of approximately 5-6 km. where such glimpses are available, the maximum magnitude of change would be **medium-high** due to the proximity and level of visibility of the Proposed Development.

5.10.529 In summary, for southbound travellers on the Clyde Sea Lochs Trail, the great majority of the route would not be affected by the Proposed Development due to lack of visibility. There would be two stretches around Cardross totalling approximately 1.9 km where an intermittent **low** magnitude of change could arise, and a stretch of approximately 3.8 km in Dumbarton where a very intermittent **medium-high** magnitude of change could arise.

Significance of the Effect

5.10.530 The effect of the Proposed Development on the great majority of views from the Clyde Sea Lochs Trail would be **not significant**, including all views from the northbound route. For southbound travellers, there is one stretch of approximately 3.8 km in Dumbarton where a very intermittent **significant** effect would arise due to the maximum medium-high magnitude of change and the high sensitivity of views from the route.

Cumulative Effect

5.10.531 There is some theoretical visibility of the operational wind farms at Priestside Farm and Corlic Hill (Inverclyde) from this viewpoint, as described above. There are no application stage wind farms within 20 km of the route, and theoretical visibility of those sites that lie beyond this distance would not contribute to a significant cumulative effect on the route.

5.10.532 One scenario is therefore considered in the cumulative assessment; the addition of the Proposed Development to the operational sites at Corlic Hill (Inverclyde) and Priestside Farm. Both of these sites are seen from between 5.5 km and 21 km away. In this scenario, the addition of the Proposed Development would have a **low** cumulative magnitude of change due to the limited visibility of the operational wind farms, which are intermittently/ very intermittently visible, particularly bearing in mind the modest height of the turbines (67 m and 110 m to tip); the perpendicular nature of the closest views; the not significant effect of the Proposed Development itself on the great majority of the route; the fact that only two operational wind farms would contribute to the cumulative effect; and the strong orientation and channelling of views along the Firth of Clyde rather than across it.

5.10.533 The cumulative effect in the scenario of operational wind farms would be **not significant** due to the factors that lead to the low cumulative magnitude of change despite the high sensitivity of views. No other cumulative scenarios are relevant.

Night-time Effect

5.10.534 While the roads that are followed by the Clyde Sea Lochs Trail are likely to be used at night-time, people using the road at night-time are less likely to be following the tourist route and would therefore have a reduced sensitivity. Moreover, road users on all routes are considered to have a reduced sensitivity at night-time due to reduced 'dark adaptation' as a result of headlights of oncoming cars and lights within vehicles, as well as the moving nature of viewers. There will also be street lighting and other light sources along extensive parts of the route.

5.10.535 Overall conclusions from the day-time assessment of effects on views from this route and the wider night-time viewpoint assessment throughout the Study Area indicate that the night-time effects on northbound users would be **not significant** in any scenario due to the limited visibility of the Proposed Development, its location in relation to views gained by northbound travellers and its distance from the route. For southbound travellers, effects in both scenarios are also likely to be **not significant** due to the minimum distance of the Proposed Development from the route (4.7 km), the illuminated urban context of the stretch of the route that lies closest to the Proposed Development, which passes through Dumbarton, the moving nature of viewers, and the intermittent and fleeting views of the Proposed Development. . If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, all effects would remain **not significant**.

Long distance route: John Muir Way

Baseline and Sensitivity

5.10.536 The John Muir Way crosses central Scotland from Dunbar in the east to Helensburgh in the west (as shown on **Figures 5.6a** and **5.6b**), covering 215 km, and can be followed by walkers, cyclists or horse-riders. The section of the route between Falkirk and Helensburgh passes through the study area for the Proposed Development. It is recommended[18] that the route be travelled from west to east (e.g. Helensburgh to Dunbar) "*because prevailing winds are from the south-west, and because John Muir's birthplace makes a fitting final destination*".

5.10.537 Viewpoints 2 (Minor road (John Muir Way/NCR 7) north of site) and 4 (Balloch Castle Country Park access road) are located on the route, and Viewpoint 15 (Ben Bowie) lies close to it.

5.10.538 There is theoretical visibility of several operational/under construction wind farms from the route within the 45 km study area. The closest is Tod Hill, which lies a minimum of approximately 3 km away to the north of the route, approximately 39 km to the east of the Proposed Development. There is very limited theoretical visibility of the group at Greendykeside, a minimum of approximately 10 km away to the south of the route, 36 km to the east of the Proposed Development. Earlsburn, Earlsburn North and Craigengelt

[18] https://www.scotlandsgreattrails.com/trail/john-muir-way/

have very intermittent visibility from over 11 km away to the north of the route. Finally, there is a very short stretch of theoretical visibility of Corlic Hill (Inverclyde) and Priestside Farm from a minimum of 9.5 km away. There are several consented wind farms with theoretical visibility; Easter Drumclair Wood has very intermittent visibility from a minimum of 7.25 km away; Shelloch, very intermittent visibility from a minimum of over 17 km away; and Hartwood, very intermittent visibility from 20 km away. Wind farms beyond 20 km away would not have potential to contribute to a significant cumulative effect on the route.

5.10.539 The value of views from the John Muir Way is high. The route passes through and overlooks a number of scenic designations, including LLTNP and the Loch Lomond NSA, and views from the route are scenic. The recognition of the route as one of Scotland's Great Trails also adds value. The susceptibility to change of viewers is also high; walkers, cyclists and horse-riders following the route are partaking in outdoor recreation on a recognised national trail and are likely to have a specific focus on the surrounding landscape. The combination of the high susceptibility to change of the viewers and the high value of the views available results in a **high** sensitivity for the John Muir Way.

Magnitude of Change

5.10.540 The magnitude of change for eastbound and westbound walkers on this route is assessed concurrently because walkers may stop and turn around to enjoy the view in all directions at any point on the route. The assessment is described with a west to east direction of travel as this is the recommended route to take. The route is shown in conjunction with the blade tip ZTV on **Figures 5.13a** and **5.13b**.

5.10.541 The westernmost stretch of the John Muir Way, starting at Helensburgh, gains no theoretical visibility of the Proposed Development, and it is only when the route passes round the northern shoulder of Ben Bowie (Viewpoint 15) that views of the Proposed Development would become available. The magnitude of change at Viewpoint 15 is assessed to be **medium**, and this would also apply to views from the John Muir Way in the vicinity of the viewpoint. From here, there is approximately 5.8 km of intermittent theoretical visibility as the route drops down the hillside to the A82, passing eastwards between Auchendennan Muir and Bromley Muir, with views towards the Proposed Development. There is a considerable amount of screening vegetation, including forestry and deciduous woodland, over this stretch, but where views are gained, the maximum magnitude of change would be **medium-high** due to the proximity of the Proposed Development (between 8 km and 5 km away) and the level of visibility of the turbines.

5.10.542 After this stretch, the route crosses the A82 on a footbridge, passes through the development of Loch Lomond Shores, along the banks of the River Leven through Balloch, and then into Balloch Castle Country Park. Over this stretch, which is approximately 5.2 km long, the ZTV shows fairly consistent theoretical visibility of the Proposed Development from between approximately 5.2 km and 5.5 km away. However, there is again a considerable amount of screening by buildings and vegetation, and actual visibility of the Proposed Development would be very intermittent. Where there are clear views, the maximum magnitude of change over this stretch would be **medium-high**. As the John Muir Way leaves Balloch Castle Country Park, a stretch of approximately 5.3 km follows minor roads (also NCR 7) as it passes to the north of the site. In many areas, these roads are lined with hedgerows and other vegetation that screens and filters southwards views across the Site. However, where there is visibility, the Proposed

Development would be seen at close proximity with an intermittent **high** or **medium-high** magnitude of change. This type of visibility can be seen in Viewpoint 4 (Balloch Country Park access road), which has a medium-high magnitude of change, and Viewpoint 2 (Minor road (John Muir Way/NCR 7) north of site), which has a high magnitude of change.

5.10.543 Near Caldarvan Station the route splits into two, with the main southern fork going on to cross the rougher terrain of the Kilpatrick Hills while the eastern fork provides an alternative cycling option that follows quiet roads to Croftamie. The eastern fork follows routes used by NCR 7 and the WHW and is assessed under the sections for those routes. The main southern fork follows a minor road for a short stretch and then rises onto forestry tracks and other smaller paths to make its way through the Kilpatrick Hills. This is an elevated part of the route, and there are some spectacular long views northwards up Loch Lomond. The ZTV shows theoretical visibility over approximately 7 km of this route between Caldarvan Station and just north of Burncrooks Reservoir. The Proposed Development would be clearly visible from parts of this stretch, although it does pass through several mature coniferous plantations that screen all outwards views. There is also a considerable amount of young planting that will grow up to provide a visual screen. Where there are clear views of the Proposed Development over this stretch, the maximum magnitude of change would be **high**, with the Proposed Development introducing an immediately apparent feature in views.

5.10.544 Around 1 km north of Burncrooks Reservoir, visibility would cease for 1 km due to landform screening. Intermittent visibility then recommences at the western end of the reservoir, continuing intermittently for around 2 km until the route passes the eastern end of the Reservoir. Over this stretch, the maximum magnitude of change would be **medium-high**, with this arising in intermittently and only when there is a clear view of the Proposed Development. Theoretical visibility then becomes very intermittent and very limited, almost all blade only, over a stretch of approximately 6 km as the route passes to the south of Auchineden Hill, round the southern side of Carbeth, and continues towards Strathblane. There is extensive vegetation screening along this stretch. The maximum magnitude of change here would be **medium-low**, with this arising only very intermittently where there is clear visibility of the Proposed Development.

5.10.545 To the west of Strathblane is a stretch of approximately 2.4 km with no visibility as the route drops down Cuilt Brae. Theoretical visibility commences again in Strathblane and continues intermittently, and much of it blade only, over a stretch of approximately 6 km to the western edge of Lennoxtown. The majority of this part of the route, which is 12 km to 18 km away from the Proposed Development, follows the Strathkelvin Railway Path and is extensively enclosed by trees that have grown along the old railway line. Some sections are also in cutting, ensuring that visibility is very limited. The maximum magnitude of change on this stretch would be **medium-low** due to the limited theoretical and actual visibility and distance from the Proposed Development. The final stretch of theoretical visibility shown on the ZTV commences around Kirkintilloch and continues intermittently to Croy. This stretch is a minimum of 22 km away from the Proposed Development and would have a maximum **low** magnitude of change.

5.10.546 In summary, views from the great majority of the John Muir Way would not be affected by the Proposed Development. There would, however, be some effects on the stretches of the route that lie in closer proximity to the Proposed Development, as follows:

- approximately 5.8 km between Ben Bowie and the A82 where an intermittent/very intermittent maximum **medium-high** magnitude of change would arise;
- approximately 5.2 km between the A82 and Balloch Castle Country Park where a very intermittent maximum **medium-high** magnitude of change would arise;
- approximately 5.3 km between Balloch Castle Country Park and Caldarvan Station where an intermittent maximum **medium-high** or **high** magnitude of change would arise;
- approximately 7 km between Caldarvan Station and north of Burncrooks Reservoir where an intermittent maximum **high** magnitude of change would arise;
- approximately 2 km around Burncrooks Reservoir where an intermittent maximum **medium-high** magnitude of change would arise;
- approximately 12 km around between the eastern end of Burncrooks Reservoir and Lennoxtown where a very intermittent maximum **medium-low** magnitude of change would arise; and
- approximately 9 km between Kirkintilloch and Croy where a very intermittent maximum **low** magnitude of change would arise.

Significance of the Effect

5.10.547 The effect of the Proposed Development on views from the great majority of the John Muir Way would be **not significant** due to lack of or very limited visibility. There is however, a stretch of approximately 25.3 km between Ben Bowie and the eastern end of Burncrooks Reservoir where a major or major/moderate and **significant** effect would arise intermittently/very intermittently due to the high sensitivity of views from the route and the maximum medium, medium-high or high magnitude of change upon the views.

5.10.548 It is important to note that The Proposed Development lies approximately at the centre of the significantly-affected stretch, ensuring that people travelling either eastwards or westwards would not consistently gain visibility from the full stretch, but only approximately half of it (other than in specific circumstances e.g. where the route doubles back or where travellers stop to look around them and gain a 'backwards' views towards the Proposed Development).

5.10.549 There is a further stretch between Burncrooks Reservoir and Lennoxtown where a very intermittent maximum medium-low magnitude of change would arise. A medium-low magnitude of change and high sensitivity can lead to an effect that is significant or not significant. In this case, the effect is assessed to be **not significant** due to the very intermittent and limited nature of visibility.

Cumulative Effect

5.10.550 As described above, there is some theoretical visibility of operational/under construction wind farms at Tod Hill, the Greendykeside cluster, the Earlsburn; Corlic Hill (Inverclyde) and Priestside Farm, and consented sites at Easter Drumclair Wood, Shelloch and Hartwood. The application site at Earlsburn Extension has theoretical visibility from 14 km away. Three scenarios are therefore considered in the cumulative assessment; the addition of the Proposed Development to operational sites; the addition of the Proposed Development to operational sites plus consented sites; and the addition of the Proposed Development to operational sites and consented sites plus application sites.

5.10.551 Viewpoints 2 (Minor road (John Muir Way/NCR 7) north of site) and 4 (Balloch Country Park access road) are located on the John Muir Way, while Viewpoint 15 (Ben Bowie) is nearby. These viewpoints are assessed as having not significant cumulative effects.

5.10.552 In the operational/under construction cumulative scenario, the addition of the Proposed Development would have a **medium-low** cumulative magnitude of change due to the limited visibility of these wind farms, which are intermittently/very intermittently visible; the small number of wind farms that are theoretically seen from the route and the distance of the majority of these from the route; and the extensive length of the full route and the retention of extensive stretches of the route without any wind farm influence. When consented wind farms are also considered, the magnitude of change would increase slightly but would not rise above a **medium-low** level. This is due to the limited theoretical visibility of the wind farms, their distance from the route, and their visibility in conjunction with wind farms that are already operational or under construction, so that visibility would not be added to otherwise unaffected parts of the route. When the application site at Earlsburn Extension is considered, the magnitude of change would remain **medium-low**. This site would be seen in conjunction with the Earlsburn cluster with intermittent and limited theoretical visibility from a minimum of 14 km away.

5.10.553 The cumulative effect in all scenarios would be **not significant** due to the factors that lead to the medium-low cumulative magnitude of change despite the high sensitivity. A combination of medium-low magnitude of change and a high sensitivity can lead to an effect that is significant or not significant. In this case, it is assessed as not significant due to the extensive length of the route and the limited number of cumulative wind farms, their intermittent theoretical visibility, and their distance from the route.

Night-time Effect

5.10.554 The John Muir Way is unlikely to be widely used during the hours of darkness and there is limited potential for the Proposed Development lighting to be seen by people using the route. Overall conclusions from the day-time assessment of effects on views from the route and the wider night-time viewpoint assessment throughout the Study Area indicate that there is likely to be a very intermittent **significant** effect in both the 200 and 2,000 cd scenarios over a stretch between Upper Stoneymollan in the west and Burncrooks Reservoir in the east. Beyond these points, the 200 cd scenario is likely to become **not significant** due to the reduced light source and distance from the Proposed Development. A **significant** effect may, however, arise in the 2,000 cd scenario on the short stretch of the path to the west of Upper Stoneymollan and around Ben Bowie in the west. Very limited visibility of the Proposed Development would prevent a significant effect from arising in the 2,000 cd scenario to the east of Burncrooks reservoir.

5.10.555 If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, these effects would all be **not significant** other than a very small area around Ben Bowie where a **significant** effect may arise in the 2,000 cd scenario due to the elevated position of this section of the route.

5.10.556 It is important to note that the effects described here are a worst-case scenario. Some parts of the route that run close to the Proposed Development are within urban areas and are therefore subject to extensive baseline lighting, and this would reduce the effect of lighting. These urban stretches are more likely to be used at night-time, with the darker sections less attractive for night-time use. People who are walking on the route at night

are likely to be carrying a torch, which will affect their 'dark adaptation' and reduce sensitivity to the lighting on the Proposed Development.

Long distance route: Rob Roy Way

Baseline and Sensitivity

5.10.557 The Rob Roy Way runs from Drymen in the south to Pitlochry in the north, covering 127 km (or 154 km with an extension near Aberfeldy) as shown on **Figures 5.6a** and **5.6b**, and can be used by walkers or cyclists. The section of the route between Drymen and Lochearnhead passes through the study area for the Proposed Development. It is recommended[19] that the route be travelled from south to north (e.g. Drymen to Pitlochry) "*…to put the prevailing wind at your back.*".

5.10.558 Viewpoint 21 (Bat a Charchel) is located on the Rob Roy Way.

5.10.559 There is theoretical visibility of two operational clusters/wind farms from the route within the 45 km study area. The closest site is Braes of Doune, which has very intermittent theoretical visibility from a minimum of 8.8 km away and lies approximately 41 km to the north-east of the Proposed Development. The operational Earlsburn cluster has very intermittent theoretical visibility from a minimum of 16.5 km away and is approximately 24 km east-north-east of the Proposed Development. There is also very intermittent theoretical visibility of the consented wind farm at Shelloch, which is adjacent to Earlsburn, 16.6 km to the east of the route. Wind farms beyond 20 km away would not have potential to contribute to a significant cumulative effect on the route.

5.10.560 The value of views from the Rob Roy Way is high. The route is entirely within LLTNP and overlooks the Loch Lomond NSA and The Trossachs NSA, and views from the route are scenic and varied. Its recognition as one of Scotland's Great Trails also adds value. The susceptibility to change of viewers would also be high; walkers and cyclists following the route are partaking in outdoor recreation on a recognised national trail and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the viewers and the high value of the views available results in a **high** sensitivity for the Rob Roy Way.

Magnitude of Change

5.10.561 The magnitude of change for northbound and southbound walkers is assessed concurrently because walkers may stop and turn around to enjoy the view at any point on the route. While the assessment would normally be described with a south to north direction of travel as this is the recommended route to take, in this case the assessment has been carried out north to south. This is because the Proposed Development lies behind the southern start point of the route and theoretical visibility would not be gained by northbound walkers as they progress along the route. The route is shown in conjunction with the blade tip ZTV on **Figures 5.13a** and **5.13b**.

5.10.562 The first theoretical visibility from the Rob Roy Way is between Loch Venachar and Aberfoyle, over 22 km away from the Proposed Development. The maximum magnitude

[19] https://www.scotlandsgreattrails.com/trail/rob-roy-way/

of change on this stretch of the route would be **low** due to the intermittent and distant theoretical visibility and further screening by woodland and forestry. This is followed by a long stretch of no visibility between Aberfoyle and approximately 800 m north of Viewpoint 21 (Bat a Charchel). Here, theoretical visibility recommences and continues fairly consistently for approximately 5.8 km to the southern end of the route in Drymen. The magnitude of change at Viewpoint 21 is assessed to be **medium-low**, and this level of change would also apply to views from the northern part of this stretch of the route, in the vicinity of the viewpoint. As the viewer travels southwards along the Rob Roy Way towards Drymen, closer to the Proposed Development, the magnitude of change would increase gradually to a maximum **medium** level as the influence of the Proposed Development on the view increases. This would be an intermittent/very intermittent effect due to screening by forestry, hedgerows and, in Drymen, buildings.

5.10.563 In summary, views from the great majority of the Rob Roy Way would not be affected by the Proposed Development. There would, however, be effects on the stretches of the route that lie in closer proximity to the Proposed Development, as follows:

- between Loch Venachar and Aberfoyle where a maximum **low** magnitude of change would arise; and
- approximately 5.8 km between just north of Viewpoint 21 and Drymen where an intermittent/very intermittent maximum **medium-low** to **medium** magnitude of change would arise.

Significance of the Effect

5.10.564 The effect of the Proposed Development on views from the great majority of the Rob Roy Way would be **not significant** due to lack of or very limited visibility. There is, however, a stretch of approximately 5.8 km between just north of Viewpoint 21 and Drymen where an intermittent/very intermittent moderate to major/moderate and **significant** effect would arise as a result of the high sensitivity of views from the route and the maximum medium-low or medium magnitude of change upon the views. A medium-low magnitude of change and high sensitivity can lead to an effect that is significant or not significant. In this case, the effect is assessed to be **significant** for the reasons described at Viewpoint 21.

5.10.565 It should be noted that the Proposed Development would lie behind people travelling in the recommended northwards direction, and the effect of the Proposed Development would therefore be very intermittent, arising only when people stop and look around.

Cumulative Effect

5.10.566 As described above, there is some theoretical visibility of operational wind farms at Braes of Doune and in the Earlsburn cluster, and the consented site at Shelloch. There is also intermittent and limited theoretical visibility of the application site at Earlsburn North gained from a minimum of 18 km away. Three scenarios are therefore considered; the addition of the Proposed Development to operational sites; the addition of the Proposed Development to operational sites plus consented sites; and the addition of the Proposed Development to operational sites and consented sites plus application sites. Viewpoint 21 (Bat a Charchel) is located on the Rob Roy Way. This viewpoint is assessed as having not significant cumulative effects.

5.10.567 In the operational/under construction cumulative scenario, the addition of the Proposed Development would have a **low** cumulative magnitude of change due to the limited

visibility of these sites; the small number of wind farms and their distance from the route; the extensive length of the full route and the retention of extensive stretches without any wind farm influence; and the very limited extent of the significant effect of the Proposed Development itself. When consented wind farms are also considered, the magnitude of change would increase slightly but would not rise above a **low** level due to the limited theoretical visibility of Shelloch, its distance from the route, and its association with the operational Earlsburn wind farm cluster. When the application site at Earlsburn Extension is also considered, the magnitude of change would remain **low**. This wind farm would have very intermittent and limited theoretical visibility, is a minimum of 18 km away, and would also be seen in association with the Earlsburn wind farm cluster.

5.10.568 The cumulative effect in all scenarios would be **not significant** due to the factors that lead to the low cumulative magnitude of change despite the high sensitivity of views.

Night-time Effect

5.10.569 The Rob Roy Way is unlikely to be widely used during the hours of darkness and there is limited potential for the Proposed Development lighting to be seen by people using the route. Moreover, people who are walking on the route at night are likely to be carrying a torch, which will affect their 'dark adaptation' and thus reduce sensitivity to the lighting on the Proposed Development. Overall conclusions from the day-time assessment of effects on views from the route and the wider night-time viewpoint assessment throughout the Study Area indicate that in the 200 cd scenario, the effect of lighting would be **not significant** due to the distance of the Proposed Development from the route (a minimum of 8.8 km) and the reduced light source in this scenario. In the 2,000 cd scenario, a **significant** effect may arise on several kilometres of the route to the north of Drymen, but this would be very intermittent due to screening along the route. The effects would all be **not significant** if mitigation relating to changes in light intensity due to vertical elevation angle is achieved.

Long distance route: Scottish National Trail

Baseline and Sensitivity

5.10.570 The Scottish National Trail is an 864 km long walking route running the length of Scotland from Kirk Yetholm to Cape Wrath. The Scottish National Trail follows a number of other national trails on its route, and the relevant parts as it passes through the study area utilise the WHW between Milngavie and Drymen and the Rob Roy Way between Drymen and Callander (as shown on **Figures 5.6a** and **5.6b**). The assessment of effects on views from the Scottish National Trail is therefore drawn from those for the Rob Roy Way and the WHW. The Scottish National Trail is assumed to be walked from south to north. The route is shown in conjunction with the blade tip ZTV on **Figures 5.13a** and **5.13b**.

5.10.571 The sensitivity of this route is **high**, as assessed for the other long distance routes.

Magnitude of Change

5.10.572 The magnitude of change on the relevant stretches of the WHW and Rob Roy Way is summarised below, travelling in a south to north direction:

- an intermittent/very intermittent maximum **low** magnitude of change would arise the stretch of the WHW between Milngavie and the A81 at Dumgoyne;

- an intermittent maximum **medium-high** magnitude of change would arise on a stretch of the WHW approximately 8 km long between the A81 crossing at Dumgoyne and the eastern edge of Drymen;
- an intermittent/very intermittent maximum **medium-low** to **medium** magnitude of change would arise on a stretch of the Rob Roy Way approximately 5.8 km long between Drymen and just north of Viewpoint 21 (Bat a Charchel); and
- a maximum **low** magnitude of change would arise on a stretch of the Rob Roy Way between Loch Venachar and Aberfoyle.

Significance of the Effect

5.10.573 The effect of the Proposed Development on views from the great majority of the Scottish National Trail would be **not significant** due to lack of or very limited visibility that leads to a maximum low magnitude of change. There is, however, a stretch of approximately 12.8 km between the A81 crossing at Dumgoyne and just north of Viewpoint 21 where an intermittent/very intermittent major to moderate and **significant** effect would arise as a result of the high sensitivity of views from the route and the maximum medium-low to medium-high magnitude of change upon the views. A medium-low magnitude of change and high sensitivity can lead to an effect that is significant or not significant. In this case, the effect is assessed to be significant for the reasons described at Viewpoint 21.

5.10.574 It is important to note that the Proposed Development would only be seen by people travelling in the recommended northwards direction where the route doubles back so that the direction of travel is orientated towards the Proposed Development (e.g. near Gartness), or where travellers stop to look around them and gain a southwards views towards the Proposed Development. It would thus not affect the great majority of their views as they travel northwards along the route.

Cumulative Effect

5.10.575 The cumulative effect on this route is drawn from the assessment of cumulative effects on the WHW and Rob Roy Way. These routes are assessed as having **not significant** cumulative effects, and this would also apply to the Scottish National Trail.

Night-time Effect

5.10.576 The Scottish National Trail is unlikely to be widely used during the hours of darkness and there is limited potential for the Proposed Development lighting to be seen by people using the route. Moreover, people who are walking on the route at night are likely to be carrying a torch, which will affect their 'dark adaptation' and reduce sensitivity to the lighting on the Proposed Development. As this trail follows the route of the Rob Roy Way and WHW, conclusions regarding the night-time effects of the Proposed Development are drawn from the findings of these two routes. In the 200 cd scenario, the effect of lighting would be **not significant** due to the distance of the Proposed Development from the route (a minimum of 8.3 km) and the reduced light source in this scenario. In the 2,000 cd scenario, a **significant** effect is likely to arise at some points where the lights would be seen at reasonable proximity – within around 11 km of the nearest turbine - as the route passes between the A81 crossing at Dumgoyne and Balmaha (e.g. at Viewpoint 14 (WHW near Drymen) and Viewpoint 17 (Balmaha Harbour)). These effects would all be **not significant** if mitigation relating to changes in light intensity due to vertical elevation angle is achieved.

Long distance route: Three Lochs Way

Baseline and Sensitivity

5.10.577 The Three Lochs Way runs from Balloch in the south to Inveruglas in the north (as shown on **Figures 5.6a** and **5.6b**), covering 55 km in total, and is designed primarily for walkers although it can be followed by cyclists and horse-riders. The three lochs referred to are Loch Lomond, the Gare Loch and Loch Long, and full length of the route lies within the study area for the Proposed Development. It is noted that the route is "*Generally walked from Balloch to Inveruglas (south to north) so that you walk towards great views over the Firth of Clyde and over Loch Long, and you progress from Lowlands to Highlands*[20]*.*". There are no viewpoints on the Three Lochs Way.

5.10.578 There are four operational wind farms (Clachan Flats, Corlic Hill (Inverclyde), Cruach Mhor, and Priestside Farm) and one consented wind farm (Creag Dubh) within the 20 km corridor of this route. However, cumulative ZTVs show that there is no theoretical visibility of Clachan Flats, Cruach Mhor and Creag Dubh, so the baseline cumulative sites are restricted to Corlic Hill (Inverclyde) and Priestside Farm. Wind farms beyond 20 km away would not have potential to contribute to a significant cumulative effect on the route.

5.10.579 The value of views from the Three Lochs Way is high. The route is partly within LLTNP and overlooks LLTNP and the Loch Lomond NSA as well as other local designations. Views from the route are scenic and the recognition of the route as one of Scotland's Great Trails also adds value. The susceptibility to change of viewers would also be high; people following the route are partaking in outdoor recreation on a recognised national trail and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the viewers and the high value of the views available results in a **high** sensitivity for the Three Lochs Way.

Magnitude of Change

5.10.580 The magnitude of change for northbound and southbound walkers on this route is assessed concurrently because walkers may stop and turn around to enjoy the view at any point on the route. While the assessment would normally be described with a south to north direction of travel as this is the recommended route to take, in this case the assessment has been carried out north to south. This is because the Proposed Development lies behind the southern start point of the route and theoretically visibility would not be gained by northbound walkers as they progress along the route. The route is shown in conjunction with the blade tip ZTV on **Figures 5.13a** and **5.13b**.

5.10.581 The first theoretical visibility from the Three Lochs Way is over a stretch of just over 1 km long on the hillside above Faslane, where the route crosses the A817 Glen Fruin hail road. At a minimum of approximately 19 km away and with a limited level of visibility, the maximum magnitude of change here would be **low**. The next stretch of theoretical visibility arises where the route rises out of the Fruin Water valley and then drops down the shoulder of Tom na h-Airidh towards Helensburgh. This stretch, approximately 2.3 km long, lies between 13.6 km and 14.1 km away from the Proposed Development and would gain perpendicular views towards the Site. The maximum magnitude of change on

[20] https://www.scotlandsgreattrails.com/trail/three-lochs-way/

views from this stretch would be **medium**, with this level of change arising only where there is clear and open visibility of the Proposed Development.

5.10.582 The final stretch of theoretical visibility is on the section of Three Lochs Way that follows the same route as the John Muir Way, from Ben Bowie down into Balloch, where the route finishes, covering approximately 5.8 km. The assessment of effects on the John Muir Way concludes that the maximum magnitude of change on this stretch would be **medium-high**, arising very intermittently due to screening by vegetation and buildings, and this would also apply to the Three Lochs Way.

5.10.583 In summary, views from the great majority of the full 55 km length of the Three Lochs Way would not be affected by the Proposed Development due to lack of visibility. There would, however, be some effects on the stretches of the route that lie in closer proximity to the Proposed Development, as follows:

- approximately 1 km on the hillside above Faslane where a maximum **low** magnitude of change would arise;
- approximately 2.3 km north of Helensburgh where an intermittent maximum **medium** magnitude of change would arise; and
- approximately 5.8 km between Ben Bowie and Balloch where a very intermittent maximum **medium-high** magnitude of change would arise.

Significance of the Effect

5.10.584 The effect of the Proposed Development on views from the great majority of the Three Lochs Way would be **not significant** due to lack of or very limited visibility that leads to a maximum low magnitude of change. There are, however, two stretches totalling a length of approximately 9.1 km to the west of the Proposed Development where an intermittent major to major/moderate and **significant** effect would arise intermittently/very intermittently as a result of the high sensitivity of views from the route and the maximum medium-high or medium magnitude of change upon the views.

5.10.585 It should be noted that the Proposed Development would lie behind people travelling in the recommended northwards direction, and the effect of the Proposed Development would be very intermittent, arising only when people stop and look around.

Cumulative Effect

5.10.586 There is some theoretical visibility of the operational wind farms at Priestside Farm and Corlic Hill (Inverclyde) as described above. There are no application stage wind farms within 20 km of the route, and theoretical visibility of those sites that lie beyond this distance would not contribute to a significant cumulative effect on the route.

5.10.587 One scenario is therefore considered in the cumulative assessment; the addition of the Proposed Development to operational sites. Corlic Hill (Inverclyde) is theoretical seen from 8.7 km to 20.7 km away and Priestside Farm from 9.5 km to 14.5 km away. In this scenario, the addition of the Proposed Development Farm would have a **low** cumulative magnitude of change due to the intermittent/very intermittent visibility of operational wind farms, particularly bearing in mind the modest height of the turbines; the distance of the wind farms from the route; their close geographical association, ensuring that the route is not encircled by wind farm influence; and the not significant effect of the Proposed Development itself on the great majority of the route.

5.10.588 The cumulative effect in the scenario of operational wind farms would be **not significant** due to the factors that lead to the low cumulative magnitude of change despite the high sensitivity of views from the route. No other cumulative scenarios are relevant.

Night-time Effect

5.10.589 The Three Lochs Way is unlikely to be widely used during the hours of darkness and there is limited potential for the Proposed Development lighting to be seen by people using the route. Overall conclusions from the day-time assessment of effects on views from the route and the wider night-time viewpoint assessment throughout the Study Area indicate that there is likely to be a very intermittent **significant** effect in both the 200 and 2,000 cd scenarios over a stretch between Upper Stoneymollan in the west and the eastern endpoint of the route at Balloch. To the west of Upper Stoneymollan the 200 cd scenario is likely to become **not significant** due to the reduced light source and distance from the Proposed Development. A **significant** effect may, however, arise in the 2,000 cd scenario on the short stretch of the path to the west of Upper Stoneymollan and around Ben Bowie in the west. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, these effects would all be **not significant** other than a very small area around Ben Bowie where a **significant** effect may arise in the 2,000 cd scenario.

5.10.590 It is important to note that the effects described here are a worst-case scenario. Some parts of the route that run close to the Proposed Development are within urban areas and are therefore subject to extensive baseline lighting, and this reduces the effect of lighting. These urban stretches are more likely to be used at night-time, with the darker sections less attractive for night-time use. Moreover, people who are walking on the route at night are likely to be carrying a torch, which will affect their 'dark adaptation' and reduce sensitivity to the lighting on the Proposed Development.

Long distance route: West Highland Way (WHW)

Baseline and Sensitivity

5.10.591 The WHW runs from south to north between Milngavie and Fort William, covering 154 km, and is designed primarily for walkers although it can be followed by cyclists and horse-riders. The section of the route between Milngavie and Crianlarich passes through the study area for the Proposed Development, as shown on **Figures 5.6a** and **5.6b**. It is recommended[21] that the route be travelled from south to north (e.g. Milngavie to Fort William): "*Normally the route is completed from south to north, the thinking behind this being the southern stages are easier and will prepare you for the more demanding northern stages.*

5.10.592 Viewpoint 14 (WHW near Drymen) is on the WHW, and Viewpoints 19 (Conic Hill), 17 (Balmaha), and 24 (Sallochy) lie close to it.

5.10.593 There are two operational wind farms/clusters (Clachan Flats and the Earlsburn cluster and two consented wind farms (Creag Dubh and Shelloch) within the 20 km corridor of this route. Cumulative ZTVs show that there is no theoretical visibility of Clachan Flats

[21] https://www.westhighlandway.org/the-route/

and Creag Dubh, so the baseline cumulative sites are restricted to the Earlsburn cluster and Shelloch. Wind farms beyond 20 km away would not have potential to contribute to a significant cumulative effect on the route.

5.10.594 The value of views from the WHW is high. The route is partly within LLTNP and the Loch Lomond NSA and overlooks both of these areas as well as other local designations. Views from the route are scenic and the recognition of the route as one of Scotland's Great Trails also adds value. The susceptibility to change of viewers would also be high; people following the route are partaking in outdoor recreation on a recognised national trail and are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change of the viewers and the high value of the views available results in a high sensitivity for the WHW.

Magnitude of Change

5.10.595 The magnitude of change for northbound and southbound walkers on this route is assessed concurrently because walkers may stop and turn around to enjoy the view in all directions at any point on the route. The assessment is described with a south to north direction of travel as this is the recommended direction to take. The route is shown in conjunction with the blade tip ZTV on **Figures 5.13a** and **5.13b**.

5.10.596 The southernmost stretch of the WHW between Milngavie and the A81 at Dumgoyne gains very limited and very intermittent theoretical visibility of the Proposed Development, almost all blade only, and the maximum magnitude of change on this stretch would be **low**. After the route crosses the A81, the ZTV shows a stretch of fairly consistent theoretical visibility, approximately 8 km long, up to the A811 on the eastern edge of Drymen. This stretch passes to the north-east of the Proposed Development, between 8.3 km and 9.5 km away, and is a mix of on- and off-road. Visibility would be intermittent due to screening and filtering by vegetation, and the highest type of visibility available is seen at Viewpoint 14 (WHW near Drymen). The magnitude of change at this viewpoint is assessed as **medium**, and this maximum level of change would also apply to other locations where a clear and open view is gained towards the Proposed Development.

5.10.597 On the eastern edge of Drymen, the WHW turns northwards from the A811 and rises, on an off-road track, into the Plateau Moor and Forest LCT. The route passes through the Garadhban Forest and towards Conic Hill. Over this stretch, which is approximately 7.5 km long, the ZTV shows consistent theoretical visibility, but views would be intermittently screened by forestry and other vegetation. Here, the maximum magnitude of change on views would be **medium** to **medium-low**, with the Proposed Development seen from between 9.5 km and 11.8 km away.

5.10.598 The WHW does not go along the high points of Conic Hill but passes around the north of the undulating 'ridge' and, for around 2 km, gains no theoretical visibility of the Proposed Development due to screening by the landform of the hill. There are paths that lead to the high points, however, and people on the WHW may make the short walk up to Viewpoint 19 (Conic Hill). The magnitude of change at Viewpoint 19 is assessed to be **medium**, and this level of change would also apply to people who gain the view by making a diversion off the WHW.

5.10.599 At the south-western end of the hill, the WHW passes through the Bealach Ard and theoretical visibility commences again, continuing through Balmaha. This stretch of

visibility is approximately 1.7 km long and would in reality be extremely intermittent due to screening by woodland and buildings in Balmaha. Where there is visibility, the maximum magnitude of change would be **medium,** as assessed at Viewpoint 17 (Balmaha). This viewpoint is not on the WHW but illustrates the highest level of visibility that would be gained from this area. North of Balmaha, the WHW runs close to the eastern shore of Loch Lomond for approximately 8.5 km, where the ZTV shows intermittent theoretical visibility of the Proposed Development. This visibility would in reality be very intermittent due to screening and filtering by the woodland that covers the loch shores and through which the WHW passes. Viewpoint 24 (Sallochy) shows a clear view from the loch shore; this viewpoint is not located on the WHW but nearby and is accessed from the WHW by an informal path. Visibility from the WHW is unlikely to be as clear as that seen at Viewpoint 24 due to the woodland screening, and the **medium** magnitude of change would be found only very occasionally where an open outlook is gained.

5.10.600 Just to the north of Sallochy campsite, theoretical visibility ceases for approximately 2 km due to landform screening. There is then a stretch of intermittent/very intermittent theoretical visibility around Rowardennan, but in reality the Proposed Development is unlikely to be apparent due to its limited theoretical visibility, further screening by woodland, and the distance of the Proposed Development from the WHW, which is more than 18 km. The final stretch of theoretical visibility, north of Rowardennan, is over 22 km away, from which distance the Proposed Development would not be clearly apparent. The magnitude of change on both of these stretches would be a maximum of **low**.

5.10.601 There is no further visibility of the Proposed Development from the WHW within the 45 km Study Area.

5.10.602 In summary, views from the great majority of the full length of the WHW would not be affected by the Proposed Development. There would, however, be some effects on the stretches of the route that lie in closer proximity to the Proposed Development, as follows:

- the southernmost stretch, between Milngavie and the A81 at Dumgoyne, where an intermittent/very intermittent maximum **low** magnitude of change would arise;
- approximately 8 km between the A81 crossing at Dumgoyne and Drymen where an intermittent maximum **medium** magnitude of change would arise;
- approximately 7.5 km between the eastern edge of Drymen and east of Conic Hill where an intermittent maximum **medium** magnitude of change would arise;
- approximately 1.7 km between Bealach Ard and Balmaha where a very intermittent maximum **medium** magnitude of change would arise;
- approximately 8.5 km to the north of Balmaha where a very intermittent maximum **medium** magnitude of change would arise; and
- the northernmost stretch of visibility, around and to the north of Rowardennan where an intermittent maximum **low** magnitude of change would arise.

Significance of the Effect

5.10.603 The effect of the Proposed Development on views from the great majority of the WHW would be **not significant** due to lack of or very limited visibility that leads to a maximum low magnitude of change. There is however, approximately 25.7 km between the A81 at Dumgoyne and north of Balmaha where a major/moderate **significant** effect would arise intermittently or very intermittently as a result of the high sensitivity of views from the route and the maximum medium magnitude of change.

5.10.604 It is important to note that on the significantly-affected parts of the WHW, the Proposed Development lies behind (i.e. to the south of) people travelling in the recommended northbound direction, and it would therefore not affect the great majority of their views. The Proposed Development would only be seen by northbound travellers in specific circumstances; where a 360º view is gained from an elevated location (e.g. Viewpoint 19, Conic Hill), where the route doubles back so that the direction of travel is orientated towards the Proposed Development (e.g. near Gartness), or where travellers stop to look around them and gain a southwards views towards the Proposed Development.

Cumulative Effect

5.10.605 As described above, there is theoretical visibility of the operational Earlsburn cluster and the consented site at Shelloch. There is also very intermittent theoretical visibility of the application site at Earlsburn Extension from a minimum of 20 km away. Three scenarios are therefore considered in the cumulative assessment; the addition of the Proposed Development to operational sites; the addition of the Proposed Development to operational sites plus consented sites; and the addition of the Proposed Development to operational sites and consented sites plus application sites.

5.10.606 Theoretical visibility of the operational Earlsburn cluster sites is very intermittent and limited, gained from a minimum of 18 km away, with the maximum level of visibility seen at Viewpoints 14 and 19 (both of which are assessed to have not significant cumulative effects). In the operational scenario, the addition of the Proposed Development would therefore have a **low** cumulative magnitude of change. When consented wind farms are also considered, the magnitude of change would increase slightly but would not rise above a **low** level due to the limited theoretical visibility of Shelloch, its distance from the route, and its association with the operational Earlsburn wind farm cluster. When the application site at Earlsburn Extension is also considered, the magnitude of change would again remain **low** due to its very intermittent and limited theoretical visibility from a minimum of 20 km away, and its association with the Earlsburn cluster.

5.10.607 The cumulative effect in all scenarios would be **not significant** due to the factors that lead to the low cumulative magnitude of change despite the high sensitivity of views.

Night-time Effect

5.10.608 The WHW is unlikely to be widely used during the hours of darkness and there is limited potential for the Proposed Development lighting to be seen by people using the route. Moreover, people who are walking on the route at night are likely to be carrying a torch, which will affect their 'dark adaptation' and reduce sensitivity to the lighting on the Proposed Development. Overall conclusions from the day-time assessment of effects on views from the route and the wider night-time viewpoint assessment throughout the Study Area indicate that in the 200 cd scenario, the effect of lighting would be **not significant** due to the distance of the Proposed Development from the route (a minimum of 8.3 km) and the reduced light source in this scenario. In the 2,000 cd scenario, a **significant** effect is likely to arise at some points where the lights would be seen at reasonable proximity – within around 11 km of the nearest turbine - as the route passes between the A81 crossing at Dumgoyne and Balmaha (e.g. at Viewpoint 14 (WHW near Drymen) and Viewpoint 17 (Balmaha Harbour)). These effects would all be **not significant** if mitigation relating to changes in light intensity due to vertical elevation angle is achieved.

National Cycle Route 7

Baseline and Sensitivity

5.10.609 NCR 7 links Sunderland in the south to Inverness in the north, covering 880 km. The section of the route between Troon in the south and Lochearnhead in the north passes through the study area for the Proposed Development, as shown on **Figures 5.6a** and **5.6b**. Viewpoint 2 (Minor road (John Muir Way/NCR 7) north of site), Viewpoint 4 (Balloch Castle Country Park access road), Viewpoint 14 (WHW near Drymen) and Viewpoint 21 (Bat a Charchel) are on NCR 7.

5.10.610 The wind farms that have theoretical visibility from this route are concentrated in the southern part of the Study Area and range from 1 km to 20 km away, with varying levels of theoretical visibility. These include Shewalton Moss/Glaxo, GSK Shewalton, the Ardrossan cluster, Braco, Neilston and Middleton, and the Whitelee cluster. The closest operational site is Neilston, approximately 25 km away from the Proposed Development, while the closest consented site is Braco, 23 km away. Other than this clustering of sites in the south, there are three other cumulative wind farms/clusters; Corlic Hill (Inverclyde) and Priestside Farm are 7.7 km and 9.5 km to the west of the route with intermittent theoretical visibility; the Earlsburn cluster is a minimum of 16 km to the east, with very intermittent theoretical visibility; and Braes of Doune has very intermittent theoretical visibility from a minimum of 9 km away, 41 km away from the Proposed Development. Wind farms beyond 20 km away would not have potential to contribute to a significant cumulative effect on the route.

5.10.611 The value of views from NCR 7 is high. The route passes through LLTNP and overlooks both this and the Loch Lomond NSA, and views from the route are scenic. The recognition of the route as part of the National Cycle Network also adds value. The susceptibility to change of viewers would also be high; cyclists following the route are partaking in outdoor recreation on a recognised national route and are likely to have a specific focus on the surrounding landscape. The combination of the high susceptibility to change of the viewers and the high value of the views available results in a **high** sensitivity for NCR 7.

Magnitude of Change

5.10.612 Cyclists are less likely than walkers to stop and look around at the view in all directions, and the magnitude of change for northbound and southbound cyclists on this route is therefore assessed separately. The route is shown in conjunction with the blade tip ZTV on **Figures 5.13a** and **5.13b**.

5.10.613 Travelling **northwards**, the ZTV shows very intermittent and limited theoretical visibility of the Proposed Development between Troon and Kilbirnie. At a minimum of over 23 km away, the maximum magnitude of change on views from this stretch would be **low**. The next stretch of theoretical visibility runs from the edge of Johnstone, into Glasgow and out northwards to Scotstoun. Over this stretch, theoretical visibility is limited with much of it being blade only, and there is further extensive screening by woodland and buildings. Over this stretch, which is approximately 13.3 to 19 km from the Proposed Development, with the closer sections having lower theoretical visibility, the maximum magnitude of change would remain **low** due to the very limited actual visibility.

5.10.614 The ZTV shows no visibility between Scotstoun and Dumbarton. Theoretical visibility recommences on the eastern edge of Dumbarton, where there is a consistent stretch over approximately 18 km until Caldarvan. Over this stretch, the route passes around the south-west, west, north-west and north of the Proposed Development, which would be seen from between approximately 2.8 and 5.2 km away. Until it reaches the edge of Balloch, this part of the route follows the River Leven through Dumbarton and Vale of Leven with a largely urban context although there are some more rural stretches, and actual visibility of the Proposed Development would be limited due to screening by buildings and vegetation. There would, however, be some glimpses and short stretches of visibility. Beyond Balloch the setting is more rural, but vegetation along the route would continue to provide extensive screening and filtering of views. Viewpoints 2 and 4 are located on the stretch of the route that runs to the north-west and north of the site, beyond Balloch and illustrate locations where a clear view is gained towards the Site. The magnitude of change at these viewpoints is assessed to be high and medium-high respectively, and between Dumbarton and around Caldarvan, the maximum magnitude of change would be intermittently/very intermittently **medium-high** or **high** as described at the viewpoints. Between Balloch Castle Country Park and Caldarvan, NCR 7 follows the same route as the John Muir Way, with the same level of magnitude of change applying to both routes. Near Caldarvan, the Proposed Development would pass behind the northbound NCR 7 and northbound views would no longer be affected.

5.10.615 Travelling **southwards**, the ZTV shows limited theoretical visibility north of Aberfoyle. At over 22 km away and with screening by buildings and forestry, the maximum magnitude of change on views would be **low**. Between Aberfoyle and a point just north of Viewpoint 21 (Bat a Charchel) the ZTV shows no visibility of the Proposed Development. Visibility recommences north of Viewpoint 21, where the ZTV shows a consistent stretch approximately 32 km long, terminating at the eastern edge of Dumbarton. This stretch passes around the north, west and south of the Proposed Development a distance of between approximately 2.8 km and 13 km away. Until it reaches the edge of Balloch, this section is largely rural other than where it passes through Drymen, and actual visibility of the Proposed Development would be limited/intermittent due to screening by vegetation. Beyond Balloch the setting is more urban, and buildings and vegetation would continue to provide extensive screening and filtering. Many views from this stretch that passes around the Site are perpendicular or oblique where the route turns away from the Proposed Development and views from these locations are less likely to be affected.

5.10.616 The stretch of NCR 7 between Viewpoint 21 and Dumbarton follows various parts of the John Muir Way, Rob Roy Way and WHW, and is represented in Viewpoint 21 (Bat a Charchel), Viewpoint 14 (WHW near Drymen), Viewpoint 2 (minor road north of site) and Viewpoint 4 (Balloch Country Park access road). The magnitude of change at these viewpoints varies from medium-low (Viewpoint 21) to high (Viewpoint 2), and over this stretch the maximum magnitude of change would be intermittently/very intermittently **medium-low** to **high** as described at the viewpoints. The effects on the other routes that follow this stretch are assessed to have the same magnitude of change as NCR 7.

5.10.617 Theoretical visibility ceases on the eastern edge of Dumbarton. Thereafter, there are several stretches of perpendicular theoretical visibility as the route passes Paisley and Johnston where the maximum magnitude of change would be **low** as for the northbound route.

5.10.618 In summary, views from the great majority of the full length of NCR 7 would not be affected by the Proposed Development. There would, however, be some effects on the stretches of the route that lie in closer proximity to the Proposed Development, as follows:

- for northbound travellers, stretches from Troon to Kilbirnie and from Johnstone to Scotstoun where a maximum **low** magnitude of change would arise;
- for northbound travellers, a stretch of approximately 18 km between the eastern edge of Dumbarton and Caldarvan where an intermittent/very intermittent maximum **medium-high** or **high** magnitude of change would arise;
- for southbound travellers, a stretch of approximately 34 km between just north of Viewpoint 21 (Bat a Charchel) and the eastern edge of Dumbarton where an intermittent/ very intermittent maximum **medium-low** to **high** magnitude of change would arise; and
- for southbound travellers, a stretch between Shawlands and Johnstone where a maximum **low** magnitude of change would arise.

Significance of the Effect

5.10.619 The effect of the Proposed Development on views from the great majority of NCR 7 would be **not significant** due to lack of or very limited visibility. There is however, a northbound stretch of approximately 18 km long between the eastern edge of Dumbarton and around Caldarvan and a southbound stretch approximately 32 km long between Viewpoint 21 and the eastern edge of Dumbarton where an intermittent or very intermittent moderate, major/moderate or major **significant** effect would arise as a result of the high sensitivity of views from the route and the maximum medium-low, medium, medium-high or high magnitude of change. A medium-low magnitude of change and high sensitivity can lead to an effect that is significant or not significant. In this case, the effect is assessed to be **significant** for the reasons described at Viewpoint 21.

Cumulative Effect

5.10.620 As described above, there is some theoretical visibility of operational and consented wind farms in four clusters along the route. The application Earlsburn Extension also has theoretical visibility in conjunction with the Earlsburn group, a minimum of 16 km away. Three scenarios are therefore considered in the cumulative assessment; the addition of the Proposed Development to operational sites; the addition of the Proposed Development to operational sites plus consented sites; and the addition of the Proposed Development to operational sites and consented sites plus application sites.

5.10.621 Viewpoint 2 (Minor road (John Muir Way/NCR 7) north of site), Viewpoint 4 (Balloch Country Park access road), Viewpoint 14 (WHW near Drymen) and Viewpoint 21 (Bat a Charchel) are located on NCR 7. These viewpoints are all assessed as having not significant cumulative effects.

5.10.622 In the operational cumulative scenario, the addition of the Proposed Development would have a **medium-low** cumulative magnitude of change. The magnitude of change is limited to this level by the limited visibility of operational wind farms and their distance from the route; further screening by the vegetation and buildings that characterise this route; the distance of the majority of these sites from the Proposed Development, which ensures that there are extensive stretches of the route where there is no wind farm influence, or influence of only one wind farm rather than multiple sites; the not significant

cumulative effects on the viewpoints that are located on this route; and the extensive length of the full route, extensive stretches of which will have no wind farm influence. When consented wind farms are also considered, the magnitude of change would increase slightly but would not rise above a **medium-low** level due to the limited theoretical visibility of these wind farms (Braco, Shelloch and Sorbie), their distance from the route, and their visibility in conjunction with wind farms that are already operational or under construction. When the application site at Earlsburn Extension is also considered, the magnitude of change would again remain **medium-low**. This wind farm would be seen in conjunction with the baseline Earlsburn cluster, would have intermittent and limited theoretical visibility and is a minimum of 16 km away.

5.10.623 The cumulative effect in all scenarios would be **not significant** due to the factors that lead to the medium-low cumulative magnitude of change despite the high sensitivity of views. A combination of a medium-low magnitude of change and a high sensitivity can lead to an effect that is significant or not significant. In this case, it is assessed as not significant due to the extensive full length of the route and the limited number of wind farms that are theoretically visible, their intermittent/very intermittent theoretical visibility, and the distance of most of them from the route and from the Proposed Development.

Night-time Effect

5.10.624 NCR 7 is unlikely to be widely used during the hours of darkness and there is limited potential for the Proposed Development lighting to be seen by people using the route. Overall conclusions from the day-time assessment of effects on views from the route and the wider night-time viewpoint assessment throughout the Study Area indicate that there is likely to be a very intermittent **significant** effect in both the 200 and 2,000 cd scenarios over a stretch between the eastern edge of Dumbarton in the south-west and Cattermuir on the western edge of Croftamie in the north-east. Beyond these points, the 200 cd scenario is likely to become **not significant** due to the reduced light source and distance from the Proposed Development. A **significant** effect may, however, arise in the 2,000 cd scenario on the stretch of the route between Cattermuir/Croftamie and a few kilometres north of Drymen in the north. Lack of visibility of the Proposed Development would prevent a significant effect from arising in the 2,000 cd scenario to the east of Dumbarton. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, these effects would all be **not significant**.

5.10.625 It is important to note that the effects described here are a worst-case scenario. Some parts of the route that run close to the Proposed Development are within urban areas and are therefore subject to extensive baseline lighting, and this reduces the effect of lighting. These urban stretches are more likely to be used at night-time, with the darker sections less attractive for night-time use. Moreover, people using the route at night are likely to have bicycle lights, which will affect their 'dark adaptation' and reduce sensitivity to the lighting on the Proposed Development.

National Cycle Route 75

Baseline and Sensitivity

5.10.626 NCR 75 links Edinburgh to Tarbert (Kintyre), covering 214 km in total. The section of the route between Blackridge in the east and Kames in the west passes through the study

area for the Proposed Development, as shown on **Figures 5.6a** and **5.6b**. Viewpoint 30 (Dunoon) is on NCR 75, and Viewpoint 18 (Port Glasgow) is located near NCR 75 as it passes through Port Glasgow.

5.10.627 The operational, under construction and consented wind farms that have theoretical visibility from this route are concentrated in the southern part of the study area and range from less than 1 km to 20 km away, with varying levels of theoretical visibility. These include the Greengairs/ Burnhead cluster; Neilston and Middleton; the Whitelee cluster; the Ardrossan cluster; Corlic Hill (Inverclyde) and Priestside Farm; and, at the western end of the route, Cruach Mhor. The closest of these operational sites to the Proposed Development is Priestside Farm, approximately 12 km away, while the closest consented site is Braco, 23 km away. Wind farms beyond 20 km away would not have potential to contribute to a significant cumulative effect on the route.

5.10.628 The value of views from NCR 75 is high. The route does not pass through LLTNP or other NSAs within the study area but does overlook LLTNP and views from the route are varied and often scenic. Its recognition as part of the National Cycle Network also adds value. The susceptibility to change of viewers would be high; cyclists following the route are partaking in outdoor recreation on a recognised national route and are likely to have a specific focus on the surrounding landscape. The combination of the high susceptibility to change and high value of the views results in a **high** sensitivity for NCR 75.

Magnitude of Change

5.10.629 Cyclists are less likely than walkers to stop and look around at the view in all directions, and the magnitude of change for eastbound and westbound cyclists on this route is therefore assessed separately. The route is shown in conjunction with the blade tip ZTV on **Figures 5.13a** and **5.13b**.

5.10.630 Travelling **eastwards**, the ZTV shows very intermittent and limited theoretical visibility of the Proposed Development to the west of Dunoon and from the waterfront in Dunoon. Viewpoint 30 (Dunoon) is located here, and the **low** magnitude of change assessed at the viewpoint would also apply to views from this part of NCR 75. From Dunoon, the route crosses to Gourock on the ferry and follows the coast round to Greenock. The ZTV shows fairly consistent theoretical visibility from Greenock and Port Glasgow, including the Esplanade in Greenock, from where there are long views up the Firth of Clyde. Just past the Beacon Arts Centre in Gourock the route turns inland and runs along the southern edge of Greenock and Port Glasgow. The stretch of the route through Gourock and Greenock is between 19 km and 14 km away from the Proposed Development, and the closer section of this stretch lies within the built-up urban fabric where there would be very little actual visibility due to screening by buildings and vegetation. The more distant section, along the Esplanade, would gain clear and open visibility, but here the Proposed Development would be seen from a greater distance and would constitute a very small feature in relation to the expansive view across the Firth of Clyde to the scenic hills beyond. The maximum magnitude of change over this stretch would be **medium-low**.

5.10.631 From the western edge of Port Glasgow, theoretical visibility remains consistent over approximately 6 km as NCR 75 takes a more elevated route. Over this stretch, the route is between approximately 14 km and 11 km away from the Proposed Development, and there is extensive screening by houses and vegetation. Where there are clear views towards the Proposed Development, the maximum magnitude of change would be

medium, with views similar to that seen at Viewpoint 18 (Port Glasgow). Between the eastern edge of Port Glasgow and Bridge of Weir, the ZTV shows very intermittent and limited theoretical visibility and the maximum magnitude of change would be **low**.

5.10.632 Visibility increases slightly on the eastern edge of Bridge of Weir, but with screening by vegetation, a minimum distance of approximately 15 km, and the perpendicular or oblique nature of the views, the maximum magnitude of change here would be **medium-low**. Hereafter, the Proposed Development passes behind the direction of travel for the eastbound route and also enters the more built-up area of Greater Glasgow, where buildings and vegetation would screen many views.

5.10.633 Travelling **westwards**, the ZTV shows intermittent/very intermittent and often limited theoretical visibility from the edge of the 45 km study area at Blackridge, through Airdrie, Coatbridge, and Uddingston, and into Glasgow. Over this stretch, which is a minimum of 19 km away from the Proposed Development, the maximum magnitude of change would be **low** due to the limited theoretical visibility, further screening by buildings and vegetation, and the distance of the Proposed Development from the route. At Glasgow Science Centre, NCR 75 joins NCR 7 and turns southwards away from the Proposed Development, where views would not be gained by westbound cyclists. At Pollock Country Park, it turns westwards again, and the ZTV shows intermittent visibility from here until the edge of Johnstone, with considerable further screening by buildings and vegetation. Over this stretch, between approximately 15 km and 20 km from the Proposed Development, the maximum magnitude of change would remain **low** due to the very limited actual visibility of the Proposed Development and perpendicular nature of views.

5.10.634 On the edge of Johnstone, NCR 75 leaves NCR 7 and continues westwards. From here until the eastern edge of Port Glasgow, the magnitude of change on the westbound route would reflect that of the eastbound route – a maximum of **medium-low** - as assessed above, as both would gain perpendicular views of the Proposed Development. At the eastern edge of Port Glasgow, the Proposed Development passes behind the direction of travel for the westbound route and views would no longer be affected.

5.10.635 In summary, views from the great majority of the full length of NCR 75 would not be affected by the Proposed Development. There would, however, be some effects on the stretches of the route that lie in closer proximity to the Proposed Development, as follows:

- for eastbound travellers, a stretch around Dunoon a stretch between Port Glasgow and Bridge of Weir where a maximum **low** magnitude of change would arise;
- for eastbound travellers, a stretch through Gourock and Greenock where a maximum **medium-low** magnitude of change would arise;
- for eastbound travellers, a stretch of approximately 6 km in Port Glasgow where an intermittent/very intermittent maximum **medium** magnitude of change would arise;
- for eastbound travellers, a stretch to the east of Bridge of Weir where a maximum **medium-low** magnitude of change would arise;
- for westbound travellers, a stretch between Blackridge and Johnstone where an intermittent/ very intermittent maximum **low** magnitude of change would arise; and
- for westbound travellers, a stretch through Johnstone to Port Glasgow where a maximum **low** or **medium-low** magnitude of change would arise.

Significance of the Effect

5.10.636 The effect of the Proposed Development on views from the great majority of NCR 75, including all views gained by westbound travellers, would be **not significant** due to lack of or very limited visibility that leads to a maximum low or medium-low magnitude of change. A medium-low magnitude of change and high sensitivity can lead to an effect that is significant or not significant. In this case, the effect is assessed to be **not significant** due to the intermittent/very intermittent nature of views, the distance of the Proposed Development from the route, and the perpendicular nature of many views. There is however, an eastbound stretch of approximately 6 km long in Port Glasgow where a moderate, major/moderate **significant** effect would arise intermittently or very intermittently as a result of the high sensitivity of views from the route and the maximum medium magnitude of change upon the views.

Cumulative Effect

5.10.637 As described above, there is theoretical visibility of operational and consented wind farms from this route, all in the southern part of the study area. The application site at Dewshill also has theoretical visibility, in conjunction with the consented site at Forrestfield Farm, from a minimum of 2.4 km away. Three scenarios are therefore considered; the addition of the Proposed Development to operational sites; the addition of the Proposed Development to operational sites plus consented sites; and the addition of the Proposed Development to operational sites and consented sites plus application sites.

5.10.638 Viewpoint 30 (Dunoon) is on NCR 75, and Viewpoint 18 (Port Glasgow) is located near NCR 75 as it passes through Port Glasgow. These viewpoints are assessed as having not significant cumulative effects.

5.10.639 In the operational cumulative scenario, the addition of the Proposed Development would have a **medium-low** cumulative magnitude of change due to the intermittent/very intermittent visibility of operational wind farms and the distance of most of them from the route; further screening by vegetation and buildings; the very limited extent of the significant effect of the Proposed Development itself on the route; and the extensive length of the full route. When consented wind farms (including Easter Drumclair Wood, Forrestfield Farm, Hartwood, Rigmuir and Braco) are also considered, the magnitude of change would increase slightly but would not rise above a **medium-low** level due to the visibility of these wind farms in conjunction with wind farms that are already operational or under construction. When the application site at Dewshill is considered, the magnitude of change would again remain **medium-low**. This wind farm would be seen in conjunction with the consented site at Forrestfield Farm and in the context of the Greengairs cluster.

5.10.640 The cumulative effect in all scenarios would be **not significant** due to the factors that lead to the medium-low cumulative magnitude of change despite the high sensitivity of views. A combination of a medium-low magnitude of change and a high sensitivity can lead to an effect that is significant or not significant. In this case, it is assessed as not significant due to the very localised influence of the Proposed Development itself on views from the route, and the distance of the majority of cumulative sites from the route, which greatly reduces their visibility and influence.

Night-time Effect

5.10.641 As a result of the minimum distance of this route from the Proposed Development (approximately 11 km) and the built-up, urban nature of the closest part of the route, night-time effects in both the 200 and 2,000 cd scenarios would be **not significant**.

National Cycle Route 755

Baseline and Sensitivity

5.10.642 NCR 755 is an 'out and back' cycle route that follows the Strathkelvin Railway Path, covering 26 km in total. The entire route lies within the study area for the Proposed Development, as shown on **Figures 5.6a** and **5.6b**, and also forms part of the John Muir Way, which is assessed previously in this Chapter. There are no viewpoints on NCR 755.

5.10.643 The short length and enclosed nature of this route means that the relevant cumulative wind farms with theoretical visibility from the route are limited to one cluster at Greengairs. These sites lie a minimum of 14 km away and have a very limited influence on views.

5.10.644 The value of views from NCR 755 is high. The route passes through and overlooks the Glazert Valley LLA and views from the route are scenic. The recognition of the route as part of the National Cycle Network also adds value. The susceptibility to change of viewers would also be high; cyclists following the route are partaking in outdoor recreation on a recognised national route and are likely to have a specific focus on the surrounding landscape. The combination of the high susceptibility to change of the viewers and the high value of the views available results in a **high** sensitivity for NCR 755.

Magnitude of Change

5.10.645 This route will generally by cycled in both directions, with people starting at either Kirkintilloch or Strathblane and returning to their start point. The Proposed Development would only be seen by people cycling westwards, from Kirkintilloch to Strathblane, as it lies to the west of the route. The ZTV (shown on **Figures 5.13a** and **5.13b**) indicates intermittent theoretical visibility, partly blade only, from approximately 6 km of the route, between Strathblane and the western edge of Lennoxtown. NCR 755 is part of the John Muir Way, and effects on views from this route are covered under the John Muir Way assessment. This concluded that a very intermittent maximum **medium-low** magnitude of change would arise over this stretch.

Significance of the Effect

5.10.646 The effect of the Proposed Development on views from NCR 755 would be moderate and **not significant** due to the maximum medium-low magnitude of change despite the high sensitivity of views. A medium-low magnitude of change and high sensitivity can lead to an effect that is significant or not significant. In this case, the effect is assessed to be **not significant** due to the very intermittent nature of visibility and its limited extent in relation to the full route.

Cumulative Effect

5.10.647 This route is part of the John Muir Way walking route, which is assessed to have a not significant cumulative effect. NCR 755 would also have a **not significant** cumulative

effect due to the very limited and distant theoretical visibility of other wind farms and the not significant effect of the Proposed Development itself.

Night-time Effect

5.10.648 The minimum distance of this route from the Proposed Development (approximately 12.2 km) and the not significant daytime effect of the Proposed Development ensure that night-time effects in both the 200 and 2,000 cd scenarios would be **not significant**.

Railway Line: West Highland Line

Baseline and Sensitivity

5.10.649 The West Highland Line railway runs between Glasgow and Oban/Mallaig, passing through the Study Area between Glasgow and Crianlarich, as shown on **Figures 5.6a** and **5.6b**. This route follows the shore of the northern part of Loch Lomond, north of Tarbet, but not the southern part of the loch, as it travels westwards, through Helensburgh and around the Gare Loch and Loch Long before crossing eastwards to Tarbet. Part of the route lies within and overlooks LLTNP and the Loch Lomond NSA. There are no viewpoints on the West Highland Line.

5.10.650 There is theoretical visibility of several operational wind farms from the route, as shown on cumulative ZTVs; theoretical visibility of Corlic Hill (Inverclyde) from a minimum of 6 km and Priestside Farm from 5.5 km away. The other baseline sites that lie within 20 km of the route, including Creag Dhubh, Clachan Flats, Cruach Mhor, Middleton and Neilston are shown to have no or negligible theoretical visibility, or visibility or distant theoretical visibility from within the built-up areas of Glasgow. Wind farms beyond 20 km away would not have potential to contribute to a significant cumulative effect on the route.

5.10.651 The value of views from the West Highland Line is high. This railway line is renowned as a scenic route, which implies a high value to views, and the sections that pass through or overlook designated areas have a formal value. Value is also added by the diverse range of views, including lochs, mountains, built development, and settlements of varying character. The susceptibility to change is high as a number of people using the route are likely to have a specific focus on the scenery and surrounding landscape. The combination of the high susceptibility to change and the high value of views results in a **high** sensitivity for the West Highland Line.

Magnitude of Change

5.10.652 The route is shown in conjunction with the blade tip ZTV on **Figures 5.13a** and **5.13b**. Travelling **northwards**, the ZTV shows very limited and intermittent theoretical visibility within Glasgow, much of it blade only, from a minimum of 13 km away. This level of visibility combined with screening by buildings and vegetation would result in a maximum **low** magnitude of change on views.

5.10.653 Theoretical visibility ceases at Garscadden/Drumchapel, on the north-western edge of Glasgow, until the railway reaches the eastern edge of Dumbarton. From here until the western edge of Dumbarton, over a stretch of approximately 4 km, the ZTV shows fairly consistent theoretical visibility. Over the first 2.5 km of this stretch, between the edge of Dumbarton and Dumbarton Central Station, actual visibility would be limited to brief

glimpse views due to screening by buildings and vegetation. At Dumbarton Central Station, which is in an elevated position, the view opens up and the Kilpatrick Hills can be seen as a backdrop to northwards views. The outlook remains largely open for approximately 800 m as the railway crosses the River Leven and into Dalreoch Station; shortly afterwards it drops into a cutting followed by a tunnel and actual visibility ceases.

5.10.654 The maximum magnitude of change on views from this stretch would be **medium-high**, with visibility similar to that seen at Viewpoint 3 (A82 near Bellsmyre Roundabout (A813 junction)). This would arise very intermittently over the approximately 2.5 km from the eastern edge of Dumbarton to Dumbarton Central Station, and then more consistently over approximately 800 m between Dumbarton Central and Dalreoch Station.

5.10.655 When the railway emerges from the tunnel on the western edge of Dumbarton, theoretical visibility ceases until the eastern edge of Cardross, other than one very brief point at Ardoch. There is then approximately 3.2 km of theoretical visibility as the railway passes around the shoreline and through Cardross. This is very limited theoretical visibility, almost all blade only and with extensive further screening by vegetation and buildings. Brief and very intermittent glimpse views may be gained from a minimum of 8 km away, with a maximum **medium** magnitude of change.

5.10.656 The final stretch of theoretical visibility within the Study Area is in the vicinity of Tarbet, where the West Highland Line runs close to the A82. The maximum visibility in this area would be similar to that seen at Viewpoint 32 (Tarbet), where the magnitude of change is assessed to be **low**.

5.10.657 In summary, the great majority of the West Highland Line would not be affected by the Proposed Development due to lack of visibility. There would be a stretch in Dumbarton totalling around 3.3 km where an intermittent/very intermittent **medium-high** magnitude of change would arise and a further stretch in Cardross where very intermittent maximum **medium** magnitude of change could arise. it is important to note that this visibility of the Proposed Development would be outwith LLTNP and the NSA, in the context of a heavily built-up setting where it is surrounded by built development and close to the Glasgow conurbation. A **low** magnitude of change may also arise around Tarbet.

Significance of the Effect

5.10.658 The effect of the Proposed Development on the great majority of views from the West Highland Line would be **not significant**. There is one stretch of approximately 3.3 km long in Dumbarton where an intermittent/ very intermittent major and **significant** effect would arise due to the maximum medium-high magnitude of change and the high sensitivity of views from the route, and a further stretch around Cardross where a very intermittent major/ moderate and **significant** effect may arise.

Cumulative Effect

5.10.659 There is some theoretical visibility of the operational wind farms at Priestside Farm and Corlic Hill (Inverclyde) from this viewpoint, as described above. There are no application stage wind farms within 20 km of the route, and theoretical visibility of those sites that lie beyond this distance would not contribute to a significant cumulative effect on the route.

5.10.660 One scenario is therefore considered in the cumulative assessment; the addition of the Proposed Development to sites at Corlic Hill (Inverclyde) and Priestside Farm. In this

scenario, the addition of the Proposed Development would have a **low** cumulative magnitude of change due to the limited visibility of the operational wind farms, which are intermittently visible, particularly bearing in mind the modest height of the turbines (67 m and 110 m to tip); the perpendicular nature of the closest views; the not significant effect of the Proposed Development itself on the great majority of the route; and the fact that only two operational wind farms would contribute to the cumulative effect. The cumulative effect in the scenario of operational wind farms would be **not significant** due to the factors that lead to the low cumulative magnitude of change despite the high sensitivity of views from the route. No other cumulative scenarios are relevant.

Night-time Effect

5.10.661 While the West Highland Line is used at night-time, people using this route at night-time are less likely to be focussed on the landscape setting of the route and would therefore have a reduced sensitivity. Overall conclusions from the day-time assessment of effects on views from this route and the wider night-time viewpoint assessment throughout the Study Area indicate that effects in both the 200 cd and 2,000 cd scenarios are likely to be **not significant** due to the minimum distance of the Proposed Development from the route (4.5 km), the illuminated urban context of the stretch of the route that lies closest to the Proposed Development, which passes through Dumbarton, lighting within trains, and the moving nature of viewers. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, all effects would remain **not significant**.

Core Paths

Baseline and Sensitivity

5.10.662 This assessment draws broad conclusions from the viewpoint assessment as to the level of visibility and effects that the Proposed Development would have on the core path network within a 20 km radius. The viewpoint assessment has indicated that effects on views gained from beyond 20 km away would be not significant and these more distant routes are therefore discounted from the assessment. Core paths that lie within 20 km of the nearest turbine in the Proposed Development are shown on **Figure 5.6b** and in conjunction with the ZTV on **Figure 5.13b**.

5.10.663 A number of the LVIA viewpoints are located on or near and are accessed by core paths and are therefore of particular relevance to this assessment. These include Viewpoint 2 (Minor road (John Muir Way/NCR 7) north of site); Viewpoint 4 (Balloch Castle Country Park access road); Viewpoint 6 (The Whangie); Viewpoint 7 (Duncryne Hill); Viewpoint 9 (Cameron House seaplane jetty); Viewpoint 10 (Langbank); Viewpoint 11 (Inchcailloch); Viewpoint 12 (Endrick Viewpoint); Viewpoint 14 (WHW Near Drymen); Viewpoint 15 (Ben Bowie); Viewpoint 16 (Dumgoyne Hill); Viewpoint 21 (Bat a Charchel); Viewpoint 29 (Ben Lomond); Viewpoint 30 (Dunoon); Viewpoint 31 (Ben Venue); Viewpoint 32 (Tarbet); and Viewpoint 33 (Ben Ledi).

5.10.664 Sensitivity is determined through a combination of the value attached to the views from the core paths and the susceptibility of viewers to the Proposed Development. While the value of views from paths can vary according to the specific views that are gained, for the purpose of this specific assessment of effects on views from core paths, it has been assumed that the value of views would be high. The susceptibility to change of viewers

is also high as views from core paths would be gained by people engaging in outdoor recreation and likely to have a specific focus on the views available. The combination of the high susceptibility to change of viewers and the high value of the views results in a **high** sensitivity for views from the core path network.

Magnitude of Change

5.10.665 The assessment of all viewpoints, and particularly those listed above that lie on core paths, gives an indication of the effect that the Proposed Development is likely to have on views from core paths within the 20 km radius. Of the 33 LVIA viewpoints, 27 lie within a 20 km radius of the Proposed Development. All of these viewpoints apart from Viewpoint 22 (Balfron Cemetery) are assessed to have a high sensitivity. The distribution of magnitude of change is listed below:

- up to **3 km** away from nearest turbine in the Proposed Development, **high** magnitude of change: Viewpoint 1 (Doughnot Hill) and Viewpoint 2 (Minor road (John Muir Way/NCR 7) north of site), both of which lie within 3 km of the nearest turbine in the Proposed Development;
- **3.8 km** - **8.5 km** from the nearest turbine in the Proposed Development, **medium-high** magnitude of change: Viewpoint 3 (A82 near Bellsmyre Roundabout (A813 junction)); Viewpoint 4 (Balloch Castle Country Park access road); Viewpoint 5 (A811 near Balloch); Viewpoint 6 (The Whangie); Viewpoint 7 (Duncryne Hill); Viewpoint 8 (Dumbarton Rock); Viewpoint 9 (Cameron House seaplane jetty); Viewpoint 10 (Langbank); and Viewpoint 13 (Finlaystone Estate); and;
- **8.7 km** - **13.3 km** from the nearest turbine in the Proposed Development, **medium** magnitude of change: Viewpoint 14 (WHW Drymen), Viewpoint 15 (Ben Bowie); Viewpoint 16 (Dumgoyne Hill); Viewpoint 17 (Balmaha); Viewpoint 18 (Port Glasgow); Viewpoint 19 (Conic Hill); and Viewpoint 22 (Balfron Cemetery);
- **7.5 km** – **19.2 km** from the nearest turbine in the Proposed Development, **medium-low** magnitude of change: Viewpoint 11 (Inchcailloch); Viewpoint 12 (Endrick Viewpoint); Viewpoint 20 (Waterbus); Viewpoint 21 (Bat a Charchel); Viewpoint 23 (Luss Campsite); Viewpoint 24 (Sallochy); Viewpoint 25 (Lyle Hill, Greenock); Viewpoint 26 (Beinn Dubh); and Viewpoint 27 (Inverbeg);
- **21.8 km** – **31.7 km** from the nearest turbine in the Proposed Development, **low** magnitude of change: Viewpoint 28 (Misty Law); Viewpoint 29 (Ben Lomond); Viewpoint 30 (Dunoon); Viewpoint 31 (Ben Venue); Viewpoint 32 (Tarbet); and Viewpoint 33 (Ben Ledi).

5.10.666 Bearing in mind that the majority of the viewpoints have been located to gain an open view of the Proposed Development and represent its visibility from specific parts of the study area, it may be assumed that the pattern of visibility from core paths would be broadly similar to or less than that seen at the viewpoints, and that the variables that affect the level of magnitude of change at viewpoints would also apply more widely to each distance band. It may therefore be concluded that where there is clear and open visibility of the Proposed Development from core path routes, the magnitude of change is likely to be in the region of the following bands:

- up to 2.9 km away: **high** magnitude of change;
- between 3.8 km and 8.5 km: **medium-high** magnitude of change;
- between 8.7 km and 13.3 km: **medium** magnitude of change;
- between 13.1 km and 19.2 km: **medium-low** magnitude of change; and
- beyond 19.2 km away: **low** magnitude of change.

5.10.667 It should be noted that these bands present a worst-case scenario as they are based on the maximum distance at which each magnitude of change has been assessed to arise. In some cases, the viewpoint assessment has ascribed a lower magnitude of change within one of the bands, where visibility of the Proposed Development is reduced by screening (e.g Viewpoint 11 (Inchcailloch) and Viewpoint 12 (Endrick Viewpoint)). This means that where the Proposed Development can be seen but visibility is more limited (due to screening by landform and vegetation, for example), the magnitude of change is likely to be lower, and there would be extensive locations where the magnitude of change is low or negligible, or there is no visibility at all, as shown on the ZTV.

Significance of the Effect

5.10.668 The effect of the Proposed Development on views from core paths within 20 km of the nearest turbine in the Proposed Development would vary according to the level and type of visibility that is gained. The findings of the viewpoint assessment indicate that where a clear view with high visibility of the Proposed Development is available from within approximately 13.3 km, the effect is likely to be **significant** due to a combination of the high, medium-high or medium magnitude of change on views and the high sensitivity that has been attributed to core paths as visual receptors. There are, however, considerable stretches of paths within this radius where visibility of the Proposed Development is more limited and the effect would be **not significant** due to a lower magnitude of change.

5.10.669 Between approximately 13.1 and 19.2 km away, where the magnitude of change is likely to be medium-low, effects may be **significant** or **not significant** dependent on the type and level of visibility of the Proposed Development. The viewpoint assessment indicates that when views have a high sensitivity the threshold from significant to not significant is likely to arise at around 15 km away from the Proposed Development.

5.10.670 On the basis of the viewpoint assessment, it is unlikely that widespread significant visual effects would arise beyond approximately 15 km from the Proposed Development, and effects on views from core paths beyond 15 km away would generally be not significant. Specific circumstances may arise that lead to significant effects beyond this distance, but these have not been identified at the viewpoints considered in the assessment.

Cumulative Effects

5.10.671 The cumulative assessment of viewpoints has indicated that the addition of the Proposed Development would not lead to significant cumulative effects in any scenario of cumulative wind farms, and this would also apply to views from core paths. This is due largely to the very limited number of wind farms that would have clear visibility and a notable influence on views in conjunction with the Proposed Development. It may be assumed that cumulative effects on views from core paths would be not significant.

Night-time Effect

5.10.672 The majority of core paths are unlikely to be widely used during the hours of darkness and there is limited potential for the Proposed Development lighting to be seen by people using these routes. Overall conclusions from the day-time assessment of effects on views from core paths and the wider night-time viewpoint assessment throughout the Study Area indicate that the effects of the aviation lighting on views from paths that gain a clear and open outlook towards the Proposed Development are likely to be **significant** up to

around 5.9 km away in the 200 cd scenario and up to around 10.7 km away in the 2,000 cd scenario. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, many of these significant effects would become **not significant**, dependent on the elevation of the paths (in accordance with the lighting intensity ZTV shown on **Figure 5.9c**).

5.10.673 It is important to note that the effects described here are a worst-case scenario. A number of core paths that run close to the Proposed Development are within urban areas and are therefore subject to extensive baseline lighting, which reduces the effect of lighting. These urban stretches are more likely to be used at night-time, with the darker sections less attractive for night-time use. Moreover, people who are walking on the route at night are likely to be carrying a torch, which will affect their 'dark adaptation' and reduce sensitivity to the lighting on the Proposed Development.

Waterborne Routes

Baseline and Sensitivity

5.10.674 Loch Lomond is a popular recreational resource and is used by a number of people for activities such as canoeing, sailing, jet-skiing and swimming as well as by waterbuses and cruise boats. These waterborne users follow a variety of routes and while some are fixed (e.g. waterbuses, cruise boats), the majority of routes are less formal. Viewpoint 20 (Waterbus) is located on the loch, on the route from Balmaha/Inchcailloch to Luss. Waterborne routes also include those on the River Leven, on which a number of boats are moored. While boats are unlikely to travel further downstream than the Loch Lomond Angling Club where there is a barrier across the water, it is possible that smaller craft may use other parts of the river.

5.10.675 Sensitivity is determined through a combination of the value attached to views from Loch Lomond/River Leven and the susceptibility of viewers to the Proposed Development. While the value of views can vary, for the purpose of this specific assessment of effects on views gained by waterborne recreational users, it has been assumed that the value of views would be high. The susceptibility to change of viewers is also high as these views would be gained by people engaging in outdoor recreation and likely to have a specific focus on their setting. The combination of the high susceptibility to change of viewers and the high value of views results in a **high** sensitivity for the waterborne route network.

Magnitude of Change

5.10.676 The findings of the assessment of the 33 LVIA viewpoints is described above in relation to core paths, and this also gives an indication of the effect that the Proposed Development is likely to have on views from waterborne routes within the 20 km radius. Drawing from the core paths assessment, it can be concluded that where there is clear and open visibility of the Proposed Development, the magnitude of change on views from waterborne routes is likely to be in the following bands:

- up to 2.9 km away: **high** magnitude of change (NB this high magnitude of change is unlikely to arise on waterborne routes as at its closest point the River Leven is 3.2 km away from the nearest turbine while Loch Lomond is a minimum of 4.7 km away);
- between 3.8 km and 8.5 km: **medium-high** magnitude of change;

- between 8.7 km and 13.3 km: **medium** magnitude of change;
- between 13.1 km and 19.2 km: **medium-low** magnitude of change; and
- beyond 19.2 km away: **low** magnitude of change.

5.10.677 These bands present a worst-case scenario as they are based on the maximum distance at which magnitude of change has been assessed to arise. This means that where the Proposed Development can be seen but visibility is more limited, the magnitude of change is likely to be lower and there would be extensive locations on the loch/river where the magnitude of change is low or negligible, or there is no visibility at all.

Significance of the Effect

5.10.678 The effect of the Proposed Development on views from waterborne routes would vary according to the level and type of visibility that is gained and would reflect effects on views from core paths as both receptor groups have a high sensitivity. This indicates that where a clear, open view with high visibility of the Proposed Development is available from waterborne routes within approximately 13.3 km, the effect is likely to be **significant** while between around 13.1 and 19.2 km away, effects may be **significant** or **not significant**, dependent on the type and level of visibility of the Proposed Development. Generally, effects on views beyond 15 km away are likely to be not significant.

5.10.679 There are considerable stretches of waterborne routes where visibility of the Proposed Development is more limited and the effect would be **not significant** due to a lower magnitude of change.

Cumulative Effects

5.10.680 There is no notable theoretical visibility of cumulative wind farms in any scenario from Loch Lomond or the River Leven and it may therefore be assumed that cumulative effects on views from waterborne routes would be **not significant**.

Night-time Effect

5.10.681 The majority of waterborne routes are unlikely to be widely used during the hours of darkness and there is limited potential for the Proposed Development lighting to be seen. Overall conclusions from the day-time assessment of effects on views from waterborne routes and the wider night-time viewpoint assessment throughout the Study Area indicate that the effects of the aviation lighting on views from areas that gain a clear and open outlook towards the Proposed Development are likely to be significant up to around 5.9 km away in the 200 cd scenario and up to around 10.7 km away in the 2,000 cd scenario. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved these significant effects would generally become **not significant** due to the low elevation of water bodies (in accordance with the lighting intensity ZTV shown on **Figure 5.9c**).

5.10.682 It is important to note that the effects described here are a worst-case scenario. People who are on the water at night are likely to be on boats with lights that will affect their ‘dark adaptation’ and reduce sensitivity to the lighting on the Proposed Development.

Roads and Railway Lines

Baseline and Sensitivity

5.10.683 Roads and railway lines that lie within 20 km of the nearest turbine in the Proposed Development are relevant to the assessment. Roads are shown on the map base on **Figures 5.6a** and **5.6b** and in conjunction with the ZTV on **Figures 5.13a** and **5.13b,** while railway lines are marked onto these figures. VisitScotland Tourist Routes, the A82 and the West Highland Line have been assessed individually due to their heightened sensitivity.

5.10.684 Sensitivity is determined through a combination of the value attached to views from the route and the susceptibility of the viewer to the Proposed Development. While the sensitivity of views from roads and railways can vary according to the specific outlook that is gained, the sensitivity of views from these routes is considered to be **medium** for the purpose of this assessment. This arises from a medium value, on the basis that while the routes considered here are not identified as VisitScotland Tourist Routes, some scenic qualities are likely to be apparent, and users of railways and roads other than tourist routes are considered to have a medium susceptibility.

Magnitude of Change

5.10.685 The findings of the assessment of the 33 LVIA viewpoints is described above in relation to core paths, and this also gives an indication of the effect that the Proposed Development is likely to have on views from roads and railways within the 20 km radius. The core paths assessment concluded that where there is clear and open visibility of the Proposed Development, magnitude of change is likely to follow five bands:

- up to 2.9 km away: **high** magnitude of change (NB this high magnitude of change is unlikely to arise on views from railways as the closest line is approximately 3.5 km away from the nearest turbine);
- between 3.8 km and 8.5 km: **medium-high** magnitude of change;
- between 8.7 km and 13.3 km: **medium** magnitude of change;
- between 13.1 km and 19.2 km: **medium-low** magnitude of change; and
- beyond 19.2 km away: **low** magnitude of change.

5.10.686 It should be noted that these bands present a worst-case scenario as they are based on the maximum distance at which each magnitude of change has been assessed to arise. Where the Proposed Development can be seen but visibility is more limited (e.g. due to screening by landform, buildings, vegetation and, in the case of railways, cuttings), the magnitude of change is likely to be lower and there would be extensive locations where the magnitude of change is low or negligible, or there is no visibility at all.

Significance of the Effect

5.10.687 The effect of the Proposed Development on views from roads and railways within 20 km of the nearest turbine in the Proposed Development would vary according to the level and type of visibility that is gained. The findings of the assessment on views from core paths indicates that where a clear view with high visibility of the Proposed Development is available from within around 13.3 km, the effect is likely to be significant while between

approximately 13.1 km and 19.2 km away, effects may be significant or not significant, dependent on the specific type and level of visibility of the Proposed Development.

5.10.688 Effects on views from roads and railways would differ from this due to the medium sensitivity of views, whereas those from core paths have a high sensitivity. The medium sensitivity means that where a clear view with high visibility of the Proposed Development is available from roads and railways within approximately 8.5 km, the effect is likely to be **significant** due to the high or medium-high magnitude of change and the medium sensitivity, while between approximately 8.7 km and 19.2 km away, effects may be **significant** or **not significant**, dependent on the specific type and level of visibility of the Proposed Development, due to the combination of a medium or medium-low magnitude of change and medium sensitivity. As described above, effects on views from core paths beyond 15 km away are likely to generally be not significant. Taking the lower sensitivity of views from roads and railways into account, the radius of likely significant effects is likely to be less than 15 km.

5.10.689 There are considerable stretches of roads and railways where visibility of the Proposed Development is more limited and the effect would be **not significant**.

Cumulative Effects

5.10.690 The cumulative assessment of viewpoints has indicated that the addition of the Proposed Development would not lead to significant cumulative effects in any scenario of, and this would also apply to views from roads and railways. This is due largely to the very limited number of wind farms that would have clear visibility and a notable influence on views in conjunction with the Proposed Development. It may therefore be assumed that cumulative effects on views from roads and railways would be not significant.

Night-time Effect

5.10.691 People using roads and railways at night-time are considered to have a reduced sensitivity due to reduced 'dark adaptation' as a result of headlights of oncoming cars and lights within vehicles/trains, as well as the moving nature of viewers. There will also be street lighting and other light sources along extensive parts of routes. Overall conclusions from the day-time assessment of effects on views from these routes and the wider night-time viewpoint assessment throughout the Study Area indicate that the effects of the aviation lighting on views from roads/railways that gain a clear and open outlook towards the Proposed Development may be **significant** up to a maximum of around 5.9 km away in the 200 cd scenario and a maximum around 10.7 km away in the 2,000 cd scenario. However, this is a worst-case scenario, and would apply only to roads and railway lines that pass through unlit areas at close proximity to the Proposed Development. The great majority of effects on night-time views from roads and railways that lie within these distances would be **not significant** due to the reduced sensitivity of night-time views from roads/railways, the extensive baseline lighting that affects the closer urban areas through which roads and railways run, the moving nature of viewers and the brief, glimpsed visibility of the Proposed Development, and lighting within vehicles and trains.

5.10.692 If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, the majority of these significant effects would become **not significant**, dependent on the elevation of the routes (in accordance with the lighting intensity ZTV shown on **Figure 5.9c**).

5.11 Summary and Conclusions

5.11.1 The purpose of the LVIA is to identify and record the potential effects that the Proposed Development would have on physical elements of the landscape; landscape character; areas that have been designated for their scenic or landscape-related qualities; and views from various locations such as settlements, routes, tourism features and other sensitive locations. The potential cumulative effects that would arise from the addition of the Proposed Development to other wind farms are also considered.

5.11.2 The Study Area for the LVIA covers a radius of 45 km from the outer turbines in the Proposed Development. The assessment has shown that the effect on the landscape and visual resource of the great majority of this Study Area would be not significant, which means that the effect of the Proposed Development would not be one of the defining influences, and the existing characteristics of the landscape and views would continue to prevail. The assessment indicates that the Proposed Development would not affect the integrity of the Loch Lomond NSA or LLTNP and would not significantly affect local scenic designations with the exception of the Kilpatrick Hills LLA.

5.11.3 While the effect on the majority of the Study Area will be not significant, as described above, the LVIA has indicated that there is potential for the Proposed Development to result in some significant effects on the 20 km study area that has been defined for the detailed assessment. The LVIA has identified that there is potential for significant effects to arise as follows:

- intermittent or very intermittent significant effects on the **landscape character** of the site and some parts of its surroundings up to a maximum of approximately 9 km away from the nearest turbine, including the following landscape character types:
    - Rugged Moorland Hills (LCT 216);
    - Lowland Hill Fringes (LCT 150);
    - Lowland Loch Basin (LCT 263);
    - Open Ridgeland – Glasgow and Clyde Valley (LCT 215);
    - River Valley Farmland and Estates (LCT 260);
    - Rolling Farmland – Glasgow and Clyde Valley (LCT 200);
    - Rolling Farmland – Loch Lomond and the Trossachs (LCT 261);
- significant effect on two SLQs of LLTNP;
- significant effect on three SLQs of the Kilpatrick Hills LLA;
- intermittent or very intermittent significant effects on views from **settlements**, where there is a clear, open view with high visibility of the Proposed Development, including Balfron (as seen at Viewpoint 22), Balmaha (as seen at Viewpoint 17), Bishopton, Bridge of Weir, Brookfield, Croftamie, Drymen (as seen at Viewpoint 14), Dumbarton (as seen at Viewpoint 3), Gartocharn, north-western Greater Glasgow, Greenock/Port Glasgow (as seen at Viewpoint 18), Houston, Killearn, Langbank (as seen at Viewpoint 10), and Vale of Leven (as seen at Viewpoint 5);
- intermittent or very intermittent significant effects on views from **road routes** and **railway lines** up to a maximum of approximately 15 km (and generally a maximum of approximately 13 km) away, where there is a clear, open view with high visibility of the Proposed Development, including:
    - A82 southbound and northbound (as seen at Viewpoint 3);
    - Clyde Sea Lochs Trail southbound only;

    - West Highland Line Railway (with significant effects arising only within Dumbarton and Cardross);
- intermittent or very intermittent significant effects on views from **core paths, long distance recreation routes** and **cycle routes** and up to a maximum of approximately 15 km away, where there is a clear, open view with high visibility of the Proposed Development, including:
    - John Muir Way (as seen at Viewpoints 2, 4 and 15);
    - Rob Roy Way (as seen at Viewpoint 21);
    - Scottish National Trail (as seen at Viewpoints 14 and 21);
    - Three Lochs Way;
    - West Highland Way (as seen at Viewpoint 14 and also represented by nearby Viewpoints 17, 19 and 24);
    - NCR 7 (as seen at Viewpoints 2, 4, 14 and 21);
    - NCR 75 (represented by nearby Viewpoint 18);
    - core path at the Whangie (Viewpoint 6);
    - core path at Duncryne Hill (Viewpoint 7);
    - core path at Viewpoint 11 (Inchcailloch);
    - core path at Endrick Viewpoint (Viewpoint 12);
    - core path at Dumgoyne Hill (Viewpoint 16);
- intermittent or very intermittent significant effects on views from **waterborne routes** up to a maximum of approximately 15 km away, where there is a clear, open view with high visibility of the Proposed Development, as seen at Viewpoint 20 and also represented by Viewpoint 11; and
- views from **hilltops/visitor destinations** at Doughnot Hill (Viewpoint 1), Dumbarton Rock (Viewpoint 8), Cameron House seaplane jetty (Viewpoint 9), and Finlaystone Estate (Viewpoint 13).

5.11.4 Although these effects are classified as significant according to the EIA Regulations, it is notable that the areas where the magnitude of change, is found to be high or medium-high are limited and found only on the Site itself or in relatively close proximity to the Site. Beyond this, in other areas where there is potential for significant effects to arise, the level of change is found to vary from medium-low to medium, and while these effects are classified as significant according to guidance, the Proposed Development would have a notably lower level of influence on the landscape character and views from these areas.

5.11.5 As well as assessing the effect of the Proposed Development itself, the LVIA considers the cumulative effect that may arise when Proposed Development is added to various scenarios of operational, under-construction, consented and application-stage wind farms. The assessment concludes that there would be no significant cumulative effects arising either from the combined effects of all wind farms, including the Proposed Development, or from the addition of the Proposed Development to other wind farms, and as a result, it would not lead to a perception that views or landscape character are defined by the presence or influence of more than one wind farm.

5.11.6 The night-time assessment has indicated, very broadly, that the effects of visible aviation lighting on views that gain a clear and open outlook towards the Proposed Development are likely to be significant up to a maximum around 5.9 km away in the 200 cd scenario and up to around 10.7 km away in the 2,000 cd scenario. If mitigation relating to changes in light intensity due to vertical elevation angle is achieved, many of these significant

effects would become not significant, dependent on the elevation of the views (in accordance with the lighting intensity ZTV shown on **Figure 5.9c**).

5.11.7 It is important to note that the conclusions of the assessment of night-time effects would be a worst-case scenario. A number of visual receptors that are at closer proximity to the Proposed Development, within the radii of theoretical significant effects, are within urban areas and are therefore subject to extensive baseline lighting that would reduce the effect of the aviation lighting. In the case of paths and cycle routes, these urban stretches are more likely to be used at night-time, with the darker sections less attractive for night-time use. Moreover, people using paths or cycling routes at night are likely to be carrying a torch or using bicycle lights, which will affect their 'dark adaptation' and reduce the effect of lighting on the Proposed Development. In the case of road and railway routes, the headlights of oncoming cars and lights within vehicles/trains as well as street lighting and other light sources along extensive parts of routes also reduce 'dark adaptation' and thus reduce the effect arising from the Proposed Development lighting.

5.11.8 This summary indicates that the Proposed Development would result in some significant effects, including night-time effects, on aspects of the landscape and visual resource. It is important to note, however, that assessments of this type tend to focus on those locations and receptors where significant effects may arise. There are large parts of the 45 km study area where ZTVs show that there would be no visibility of the wind farm at all or very limited visibility, and this should be taken into consideration in the review of significant effects of the Proposed Development.

5.12 References

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- East Dunbartonshire Council (2022). Adopted Local Development Plan 2;
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- West Dunbartonshire Council (2020). Local Development Plan 2;
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5.12.1 Online resources:

- https://www.nature.scot/doc/general-pre-application-and-scoping-advice-onshore-wind-farms#Annex+1%E2%80%8B;
- https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions;
- https://map.environment.gov.scot/sewebmap/;
- http://portal.historicenvironment.scot/designation/GDL00180;
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