6 Landscape and Visual Impact Assessment

6.1 Introduction

6.1.1 This chapter of the EIAR presents a Landscape and Visual Impact Assessment (LVIA) of the Proposed Development as described in Chapter 2. The purpose of an LVIA when undertaken in the context of the preparation of an EIAR is to identify any likely significant landscape and visual effects arising as a result of the Proposed Development. An LVIA must consider both:

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

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

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

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

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

- to identify, evaluate and describe the baseline landscape character of the Site and its surroundings and also any notable individual landscape features within the Site;
- to determine the nature of the landscape receptor (i.e. the sensitivity of the landscape) through a consideration of its susceptibility to the type of development proposed and any values associated with it;
- to identify and describe any impacts of the Proposed Development in so far as they affect the landscape resource;
- to evaluate the nature of the landscape effects (i.e. the magnitude, duration and reversibility of the effect);
- to identify and describe mitigation measures that have been adopted to avoid, reduce and compensate for landscape effects;
- to evaluate the relative significance of residual landscape effects; and
- to determine which landscapes effects, if any, are significant.

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

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

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

6.1.7 The main LVIA presented in this chapter is supported by figures in the EIAR **Volume 2**, visualisations in **Volume 3** and technical appendices in **Volume 4**.

6.1.8 The location of the Proposed Development and the study area for the LVIA is illustrated on **Figure 6.1**. For reference, other operational, consented and proposed wind farms within 35 km which are referred to throughout this chapter are illustrated on **Figure 6.27** and **Figure 6.28** shows other wind farms within 20 km.

6.1.9 This chapter is structured as follows:

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

- Summary.

6.2 Legislation, Policy and Guidance

European Landscape Convention, Adopted 2000

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

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

6.2.3 The ELC defines landscape as:

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

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

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

Planning Policy

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

- National Planning Framework 4 (NPF4) [3]
- Aberdeenshire Local Development Plan 2023 [4]. Policy C2 Renewable Energy;
- Aberdeen City Council Local Development Plan 2023 [5];
- Cairngorms National Park Local Development Plan 2021 [6]

6.2.8 The following supplementary guidance and technical reports which provide the evidence base for current planning policy were also reviewed:

- Aberdeenshire Council. Appendix 13. Aberdeenshire Special Landscape Areas [7];
- Aberdeenshire Council. Assessing Wind Energy Developments. Planning advice PA2023-21. January 2023 [8];

6.2.9 A full and detailed consideration of national and local planning policy is contained in Chapter 5: Planning & Policy Context of this EIAR and assessed in the accompanying Planning Statement.

6.3 Consultation

6.3.1 Throughout the scoping exercise, and subsequently during the ongoing EIA process, relevant organisations were contacted with regards to the Proposed Development. **Table 6.1** outlines the consultation responses received in relation to landscape and visual issues.

Table 6.1 - Consultation

Consultee	Details	Response	Where Addressed in the EIA Report
Aberdeenshire Council	Proposed Study Areas: - Initial 35 km LVIA Study Area; - Detailed assessment within 20 km; - Detailed 20 km cumulative study area	Agreed in Aberdeenshire Scoping Response letter (Ref: ENQ/2022/1247) dated 26 September 2022 (**Technical Appendix 4.1**)	Study area extents set out **in Section 6.4** below.
	Viewpoints appear to be almost exclusively clustered within 10.0km of the development site and therefore risk omitting impacts upon several large population centres in Aberdeenshire. As such the inclusion of viewpoints to represent the likely impact upon towns such as Banchory, Inverurie, Kintore, Kemnay, Alford and Aboyne should be explored. Whilst further investigation may discount the need for viewpoints from these locations, this exercise should be documented.	Following the EIA Scoping exercise, a series of additional viewpoints were added in response to the feedback from consultees. This increased the list from 15 to 22 viewpoints. In addition, a series of six wireline visualisations have also been included as part of the LVIA, as illustrated on **Figure 6.3**. The locations suggested by the Council were all considered as part of this exercise and viewpoints added accordingly where it was considered that there was the potential for more than very limited visibility to arise whilst ensuring that the overall number of viewpoints remained proportionate.	**Section 6.6**
	Similarly, other prominent locations which should be considered are Bennachie		

Consultee	Details	Response	Where Addressed in the EIA Report
	and Cairn O'Mount. Once again whilst further investigation may discount the need for viewpoints from these locations, this exercise should be documented.		
	Other wind farms within the 20km study area to be included in the cumulative assessment? - Glendye Wind Farm may partially fall within the 20km study. This is at the consenting stage, with a PLI held in august 2022. - Fetteresso Wind Farm was approved by ministers in Sept 2022	Both of these schemes have been included in the assessment of cumulative effects.	**Section 6.9**
Cluny, Midmar and Monymusk Community Council	3.13 The developer implies that the Strategic Landscape Capacity Assessment relevant in Aberdeenshire may be out of date. We believe that this is not the case for the Hill of Fare and that there is unlikely to be a change in the new Local Development Plan. Due to its prominence from all sides it has a high visual sensitivity.	In line with current NatureScot guidance available at: https://www.nature.scot/professional-advice/landscape/landscape-tools-and-techniques/landscape-sensitivity-studies such studies should no longer be referred to as 'capacity studies'. A new sensitivity study is currently being produced by Aberdeenshire Council but is not yet published. Nonetheless, the 2014 study will provide a useful reference to inform judgements about the relative sensitivity of the landscape to the type of development proposed.	**Paragraph 6.5.22**
	3.15 The principles of best practice according to which the LVIA will be carried out appear to be dated from 2013. This seems a very long time ago, considering how technology and in particular size of turbines have altered so much since that date. There is concern that they are not fit for purpose with such an intended project.	GLVIA sets out a framework for the assessment of landscape and visual effects. It is not specific to a particular type of development and is the current Landscape Institute guidance that is widely used across the UK for LVIA.	**Section 6.4**
	3.20 In terms of the distinction between landscape and visual effects we believe that such is the scale of the intended turbines that it will be impossible to engineer protected views, therefore the two individual scoping elements may not be relevant.	GLVIA3 paragraph 2.21 to 2.22 identifies the distinction between the two components of LVIA and states at paragraph 2.22 that: *"the LVIA must deal with both and should be clear about the difference between them."*	**Section 6.4**
	3.27 The Residential Visual Amenity Assessment for all properties within 2 km of all proposed turbines and the screening discussed within this, does not negate the sound elements to the turbine effects, even if flicker can be reduced or ruled out.	The Residential Visual Amenity Assessment deals with the visual component only of residential amenity. Shadow flicker and noise are dealt with elsewhere in the EIAR.	**Chapter 12: Acoustic Assessment** Shadow flicker is considered within **Chapter 14: Aviation and Other Issues**
	3.29 As well as the 15 viewpoints the developer is proposing for landscape and visual impact assessments, we believe that due to the proposed scale of the turbines there should be other viewpoints such as Mither Tap (NJ 682 224), Westhill (NJ 814 073), North Monymusk (NJ 682 177), Clachnaben (NJ 616 865).	Following the EIA Scoping exercise, a series of additional viewpoints were added in response to the feedback from consultees. This increased the list from 15 to 22 viewpoints. In addition, a series of six wireline visualisations have also been included as part of the LVIA, as illustrated on **Figure 6.3**. The locations suggested by the Council were all considered as part of this exercise and viewpoints added accordingly where it was considered that there was the potential for more than very limited visibility to arise whilst ensuring that the overall number of viewpoints remained proportionate.	**Section 6.6**
	3.40 To imply that there will be no significant effects on landscape character [in relation to aviation lighting] is incorrect and therefore all necessary visuals of a high quality need to demonstrate this from all directions.	This statement relates to landscape character effects during the hours of darkness only. Without being able to fully appreciate landscape features and components that contribute to landscape character it is not possible to carry out a meaningful landscape character assessment. This precedent was established in the Reporter's decision for Crystal Rig IV (WIN-140-8). The LVIA will consider effects on landscape character during daytime hours only.	**Paragraph 6.4.12**
	3.44 In terms of the scoping points regarding aviation warning lighting we believe that there is not already a significant artificial lighting effect on the Hill of Fare,	The LVIA considers the effect of the aviation lighting during dark sky hours on all visual receptors. In line with current NatureScot guidance, "General pre-application advice for onshore wind farms"	**Paragraph 6.5.87**

Consultee	Details	Response	Where Addressed in the EIA Report
	certainly from the north side and therefore it would be wrong to discount the hugely significant effect that lighting on all 17 turbines would have not only on the immediate but also further afield landscape. Scoping points for this and visual illustrations should take into account the size of these turbines.	(September 2020), Annex 2, the assessment of the effects of night-time lighting on visual amenity has been considered throughout the main LVIA chapter.	
	3.47 In terms of the cumulative effect we do believe that the 4 turbines in Midmar which are under 50m in height should however be included in the cumulative impact assessment. They already effect people who are going to be further affected, so are important to those in the immediate vicinity.	The methodology for the cumulative assessment has been updated and all wind turbines within 10 km have been included within the list of cumulative sites and have been assessed.	**Section 6.9**
Echt and Skene Community Council (ESCC)	The developer refers to the Strategic Landscape Capacity Assessment for Wind Energy in Aberdeenshire (ASLC) and asserts in paragraph 3.13 that elements of this report may be out of date. This report is referred to in the Aberdeenshire LDP 2017 and the proposed Aberdeenshire LDP 2020, as providing detailed guidance on the appropriate siting of wind energy developments in Aberdeenshire. Whilst some parts of the Moorland Plateau have seen change since 2014 through subsequent wind farm developments, this is not the case for the Hill of Fare. No industrial-scale wind turbines have been erected on or around it since the SLCA was published. The SLCA's conclusions therefore remain as valid today as they were in 2014 in respect of the very high	In line with current NatureScot guidance available at: https://www.nature.scot/professional-advice/landscape/landscape-tools-and-techniques/landscape-sensitivity-studies such studies should no longer be referred to as 'capacity studies'. A new sensitivity study is currently being produced by Aberdeenshire Council but is not yet published. Nonetheless, the 2014 study will provide a useful reference to inform judgements about the relative sensitivity of the landscape to the type of development proposed.	**Paragraph 6.5.22**
	visual sensitivity of the Hill of Fare.		
	The developer has proposed 15 viewpoints around the Hill of Fare for detailed landscape and visual impact assessments. In our view, these will not be fully representative of the views that very large numbers of people in the area will experience. We would suggest that additional viewpoints should be included in the assessment as follows: - Junction of Old Skene Road and Strawberryfield Road, Westhill; - Lyne of Skene Playpark - Millstone Hill or Mither Tap; - A944 west of junction with B9126	Following the EIA Scoping exercise, a series of additional viewpoints were added in response to the feedback from consultees. This increased the list from 15 to 22 viewpoints. In addition, a series of six wireline visualisations have also been included as part of the LVIA, as illustrated on **Figure 6.3**. The locations suggested by the Council were all considered as part of this exercise and viewpoints added accordingly where it was considered that there was the potential for more than very limited visibility to arise whilst ensuring that the overall number of viewpoints remained proportionate.	**Section 6.6**
NatureScot	The LVIA should include assessment of… - The Hill of Fare as a landscape feature in its own right in this part of Aberdeenshire	Effects on Hill of Fare are considered in the assessment of the effects on the character of LCT 22 (i) Grampian Outliers which covers the Hill of Fare	**Section 6.6** Assessment of Effects on Landscape Character
	- The effects on the setting of a number of settlements surrounding the Hill of Fare	All settlements within the 20 km detailed LVIA study area have been subject to a preliminary assessment in **Appendix 6.4** and those settlements where significant effects may be experienced have been considered in detail in **Section 6.6** Assessment of Effects on Visual Receptor Groups.	**Section 6.6**
	- The A93 as a popular tourist route and a gateway to the Cairngorms National Park	Roads within 10 km of the Proposed Development subject to a preliminary assessment in **Appendix 6.4** and those settlements where significant effects may be experienced have been considered in detail **in Section 6.6** Assessment of Effects on Visual Receptor Groups.	**Section 6.6**
	- Effects on the Special Landscape Qualities of the Cairngorms National Park including the effects on lighting on Dark Skies.	The effects on the Cairngorms National Park (CNP) have been considered as part of the preliminary assessment of designated sites in **Appendix 6.3** and those designated sites with the potential to experience significant	**Technical Appendix 6.3**

Consultee	Details	Response	Where Addressed in the EIA Report
		effects have been assessed in detail in **Section 6.6**.	
	Due to the height of the turbines a full lighting assessment should be provided as described in Annex 1 of our guidance document1. The lighting assessment should include lowlight photomontages.	The LVIA considers the effect of the aviation lighting during dark sky hours on all visual receptors. In line with current NatureScot guidance, "General pre-application advice for onshore wind farms" (September 2020), Annex 2, the assessment of the effects of night-time lighting on visual amenity has been considered throughout the main LVIA chapter. Night-time visuals have been provided from viewpoints 1, 2, 4 and 19.	**Section 6.6** & **Volume 3** LVIA & Cultural Heritage Visualisations
Torphins Community Council	The number of viewpoint locations should be expanded to include at a minimum the following suggested additional locations within the area of Torphins. - Torphins Golf Course E 361951 N 802463 - Torphins Public Park E 362289 N 802010 - Easter Beltie river restoration site and access to Mains of Easter Beltie E 363911 N 800097 - Layby/Viewpoint on minor road south of Pitmurchie House E 359767 N 801921 - Area of The Cowshed on A980 E 369913 N 797262 - View from A980 heading west from Raemoir E 368634 N 799321	Following the EIA Scoping exercise, a series of additional viewpoints were added in response to the feedback from consultees. This increased the list from 15 to 22 viewpoints. In addition, a series of six wireline visualisations have also been included as part of the LVIA, as illustrated on **Figure 6.3**. The locations suggested by the Community Council were all considered as part of this exercise and viewpoints added accordingly where it was considered that there was the potential for more than very limited visibility to arise whilst ensuring that the overall number of viewpoints remained proportionate.	**Section 6.6**
	At section 3.35 the Report refers to the models for the viewpoints being developed into photomontages. We request that these photomontages include a visualisation of a well-known tall landmark to promote understanding, for example by incorporating a scale image of a Queensferry crossing tower.	Visualisations accompanying this chapter have been produced in in line with NatureScot Visual Representation of Wind Farms Guidance Version 2.2	**Technical Appendix 6.2** **Volume 3** LVIA & Cultural Heritage Visualisations
	Explanations and visualisations of the lighting on the proposed turbines need to be provided to understand the impact during darkness.	A description of the aviation lighting has been provided in the main LVIA chapter. Night-time visualisations have been provided from viewpoints 1, 2, 4 and 19.	Paragraph 6.6.85 **Volume 3** LVIA & Cultural Heritage Visualisations
	The site of the proposed batteries needs to be identified and explained with information about the daytime appearance and the extent and appearance of lighting in times of darkness.	A comprehensive project description is provided in **Chapter 2: Project Description**.	**Chapter 2: Project Description**
	The power export transmission lines may be a separate application however explanation of this feature is needed	If the Proposed Development is consented, a separate planning application to connect the wind farm to the electricity transmission system will be submitted by the Transmission Owner (TO). The TO will decide on the connection point to the electricity transmission system based on current and future planned capacity on the system. The TO will undertake an appraisal of potential connection route options and determine the most appropriate technology for the connection. This is explained in **Chapter 2: Project Description**.	**Chapter 2: Project Description**

6.4 Methodology

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

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

6.4.3 The methodology for this assessment has therefore been developed specifically for this LVIA to ensure that it is appropriate and fit for purpose.

6.4.4 Consideration has also been given to the following documents:

- Landscape Sensitivity Assessment Guidance (Methodology), (2022), NatureScot;
- Assessing the Cumulative Impact of Onshore Wind Energy Developments (March 2021) NatureScot;
- Siting and Design of Wind farms in the Landscape, Version 3 (February 2017) SNH;
- Visual Representation of Wind Farms – Version 2.2 (February 2017), SNH;
- General pre-application and scoping advice for onshore wind farms. Guidance. (September 2020) NatureScot;
- LI Technical Guidance Note 2/19. Residential Visual Amenity Assessment (RVAA) (March 2019) Landscape Institute;
- LI Advice Note 02/17 Visual representation of development proposals (March 2017) Landscape Institute; and
- LI Technical Guidance Note 02/21 Assessing landscape value outside of national designations.

Scope of Assessment

6.4.5 The LVIA assesses both the long-term effects relating to the operational lifetime of the Proposed Development and the short-term temporary effects associated with the construction of the Proposed Development.

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

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

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

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

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

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

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

Effects Scoped Out of the Assessment

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

- Effects on receptors located outside of the zone of theoretical visibility (ZTV);
- Effects of decommissioning the Proposed Development at the end of its operational life as effects would be very similar in nature to those experienced during the construction, except in reverse; and
- Effects on landscape character during dark sky hours when aviation lighting is operating. Without being able to fully appreciate landscape features and components that contribute to landscape character it is not possible to carry out a meaningful landscape character assessment. This precedent was established in the Reporter's decision for Crystal Rig IV (WIN-140-8)[9].

Study Area

6.4.13 The initial study area for the landscape and visual impact assessment is 35 km radius from the turbines in all directions, as set out in the Scoping Report (**Technical Appendix 4.1**). The extent of this study area is illustrated in **Figure 6.1**. Initial site work informed by analysis of preliminary ZTVs indicated that any significant

landscape and visual effects are likely to occur within a much narrower radius from the Site; therefore, the level of assessment work in this LVIA incrementally decreases with distance from the Site, with the greatest focus of assessment being within broadly 20 km of the Site. The intention is that the detail of the LVIA remains proportional to the likely significance of effects, as advocated in GLVIA3.

6.4.14 In terms of cumulative effects, the intention has again been that assessment work is proportional to the likelihood of significant effects arising. The approach adopted in the cumulative LVIA has been to focus on other wind farms which are either operational, under construction, consented or the subject of a full planning application within 20 km radius from the turbines in all directions as agreed in the Scoping Opinion and which have the potential to give rise to significant cumulative effects when considered in combination with the Proposed Development. The approach has been to focus the assessment on those sites which have the potential to given rise to significant cumulative effects. Further details of this approach are set out in the cumulative impact assessment at **Section 6.9**.

Landscape Assessment Methodology

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

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

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

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

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

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

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

Visual Assessment Methodology

6.4.21 Potential visual receptors of the Proposed Development were identified by interpretation of digitally generated ZTVs (see **Technical Appendix 6.2** for an explanation of how the ZTVs were produced).

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

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

6.4.24 Visualisations were produced for each of the viewpoints; these are presented in Volume 3 of this EIAR. An explanation of how they were produced and information to be read in conjunction with the visualisations is provided in **Technical Appendix 6.2.**

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

6.4.26 The viewpoints were used as the starting point for considering the effects on visual receptors within the entire study area. The visual assessment does not rely solely on the viewpoint assessments to determine the significance of effects on different visual receptor groups throughout the study area. It should be recognised that the viewpoints illustrated in the LVIA simply represent a series of snapshots from a small selection of the locations within the study area from where the Proposed Development will be visible. Following the viewpoint assessment, the LVIA considers

the effect on visual amenity throughout the study area with reference to different visual receptor groups at varying distances from the Site.

Assessment Criteria

6.4.27 The purpose of an LVIA when produced in the context of an EIA is to identify any significant landscape and visual effects within the study area to assist the determining authority in deciding the acceptability of the scheme under consideration.

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

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

6.4.30 The detailed assessment criteria used to determine landscape and visual sensitivity, magnitude of change and significance of effect are set out in **Technical Appendix 6.1**.

Assessment Limitations

6.4.31 The assessment of effects within this LVIA has been derived through the use of publicly available information only. Within such a large study area it is unfeasible to visit every single location from which the Proposed Development might be visible as illustrated on the ZTVs. The authors of the LVIA have, however, spent a considerable length of time 'in the field' and visited all important locations within the 35 km study area.

6.4.32 Limitations to the use of ZTVs and in relation to photography, wireframes and photomontages are set out in **Technical Appendix 6.2**.

6.5 Baseline

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

Current Baseline

Site Location

6.5.2 The Proposed Development is located in Aberdeenshire, Scotland and is located on the Hill of Fare. The site is centred on Ordnance Survey British National Grid NJ 70063 02717.

6.5.3 The nearest settlements are Torphins, located approximately 3.4 km to the west, Midmar located 3.6 km to the north, Echt located approximately 4 km to the north-east and Banchory located approximately 6 km to the south.

6.5.4 The plateau upon which the Proposed Development would be located is ringed by a road network comprising the A980, B9125, B977, B9119 and the B993.

6.5.5 The location of the Proposed Development site is illustrated at **Figure 1.1**, the layout of the Site is shown on **Figure 1.2** and the proposed turbine layout at **Figure 1.3**.

Landscape Designations

6.5.6 A review of all landscape designations within the initial 35 km LVIA study area has been undertaken. Landscape designations within 35 km are illustrated on **Figure 6.9**.

International/National Landscape Designations

6.5.7 There are no national landscape designations covering the Site. However, the Cairngorms National Park (CNP) is situated approximately 16.8 km to the south-west of the nearest turbine, as shown on **Figures 6.9** and **6.10** along with the other designated sites.

National Parks

6.5.8 The National Parks (Scotland) Act 2000 allowed the creation of National Parks in Scotland. The act states the aims of the National Parks are:

- conserve and enhance the natural and cultural heritage of the area;
- promote sustainable use of the natural resources of the area;
- promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public; and
- promote sustainable economic and social development of the areas' communities.

6.5.9 Where these aims conflict the relevant National Park Authority must prioritise the first of these aims.

6.5.10 The CNP was established in September 2003 and extended in 2010. The Park is divided into landscape character areas (LCAs) which are in turn underpinned by the

Special Landscape Qualities (SLQs) which are the qualities that combine to define the landscapes of the National Park.

6.5.11 SNH (now NatureScot) Commissioned Report No. 375 "The Special Landscape Qualities of the Cairngorms National Park" defined the SLQs which are as follows:

- General Qualities
  - Magnificent mountains towering over moorland, forest and strath;
  - Vastness of space, scale and height;
  - Strong juxtaposition of contrasting landscapes;
  - A landscape of layers, from inhabited straths to remote uninhabited upland;
  - 'The harmony of complicated curves'; and
  - Landscapes both cultural and natural.
- The Mountains and Plateaux
  - The unifying presence of the central mountains;
  - An imposing massif of strong dramatic character;
  - The unique plateaux of vast scale, distinctive landforms and exposed, boulder strewn high ground;
  - The surrounding hills;
  - The drama of the deep corries;
  - Exceptional glacial landforms; and
  - Snowscapes.
- Moorlands
  - Extensive moorland, linking the farmland, woodland and the high tops; and
  - A patchwork of muirburn.
- Glens and Straths
  - Steep glens and high passes;
  - Broad, farmed straths;
  - Renowned rivers; and
  - Beautiful lochs.
- Trees, Woods and Forests
  - Dark venerable pine forest;
  - Light and airy birch woods;
  - Parkland and policy woodlands; and
  - Long association with forestry.
- Wildlife and Nature
  - Dominance of natural landforms;
  - Extensive tracts of natural vegetation;
  - Association with iconic animals;
  - Wild land; and
  - Wildness.
- Visual and Sensory Qualities
  - Layers of receding ridge lines;
  - Grand panoramas and framed views;
  - A landscape of many qualities;
  - Dark skies;
  - Attractive and contrasting textures; and
  - The dominance of natural sounds.
- Culture and History
  - Distinctive planned towns;
  - Vernacular stone buildings;
  - Dramatic, historical routes;
  - The wistfulness of abandoned settlements;
  - Focal cultural landmarks of castles, distilleries and bridges; and
  - The Royal connection.
- Recreation
  - A landscape of opportunities; and
  - Spirituality.

6.5.12 Since the submission of the Scoping Report (scoped on 17 turbines at 250 m to blade tip), the number of turbines has reduced to 16 and further design iteration has reduced the height of the proposed turbines by up to 70 m (11 turbines at 180 m to tip and 5 turbines at 200m to tip). However, given the importance of the Park, effects on it are considered within the preliminary assessment of LCTs and Designated Sites in **Technical Appendix 6.3**.

National Scenic Areas

6.5.13 The Deeside and Lochnagar National Scenic Area (NSA) is situated approximately 32.8 km to the west of the Proposed Development and overlaps the initial 35 km LVIA study area near Ballater. Effects on it are considered within the preliminary assessment of LCTs and Designated Sites in **Technical Appendix 6.3**.

Local Landscape Designations

Special Landscape Areas

6.5.14 In total ten Special Landscape Areas (SLA) have been identified in Aberdeenshire as set out in Policy E2 Landscape of the Aberdeenshire Local Development Plan[10]. The special qualities and character of each SLA are set out in Appendix 13 of the LDP[11]. Five of the SLA overlap with the initial 35 km LVIA study area as illustrated on **Figure 6.9**.

6.5.15 The Upper Don Valley SLA is located approximately 17.2 km to the north-east of the Proposed Development. The Hill of Cromar SLA is located approximately 12.6 km to the west of the Proposed Development. The Dee Valley SLA is located approximately 2.15 km to the south of the Proposed Development. Clachnaben and Forest of Birse SLA is located approximately 11 km to the south-west of the Proposed Development and the Braes of Mearns SLA is located approximately 19.5 km to the south of the Proposed Development.

6.5.16 As each of these SLAs overlaps with the 20 km detailed LVIA study area effects on these designations are considered further within the within the preliminary assessment of LCTs and Designated Sites in **Technical Appendix 6.3** to determine which have the potential to experience significant effects and require detailed assessment.

6.5.17 No SLA within the Moray Council or Angus local authority areas overlap the initial 35 km LVIA study area.

Wild Land

6.5.18 The Proposed Development is not located within a Wild Land Area (WLA). The nearest WLA is the Lochnager – Mount Keen WLA (WLA 16) located approximately 21.7 km to the south-west of the Proposed Development within the CNP.

6.5.19 Although it is acknowledged that there is patchy and intermittent theoretical visibility from the north-eastern part of the WLA any effects would be very minimal given the distance from the Proposed Development. Furthermore, with reference to Policy 4 (g) of National Planning Framework 4[12] that states that *"Buffer zones around wild land will not be applied and effects of development outwith wild land areas will not be a significant consideration."* effects on the WLA are not considered further within the assessment.

Gardens and Designed Landscapes

6.5.20 There 27 Gardens and Designed Landscapes (GDL) located within the initial 35 km LVIA study area. Of these, eleven are situated within the detailed 20 km LVIA study area. These comprise:

- Dunecht House GDL located approximately 4.7 km to the north-east;
- Crathes Castle GDL located approximately 6 km to the south;
- Cluny Castle GDL located approximately 8 km to the north;
- Castle Fraser GDL located approximately 8.5 km to the north;
- Drum Castle GDL located approximately 8.5 km to the south-east;
- Park House GDL located approximately 9.3 km to the south-east;
- Monymusk GDL located approximately 10.2 km to the north;
- Craigievar Castle GDL located approximately 11.4 km to the north-west of the Proposed Development;
- Castle Forbes GDL located approximately 15.9 km;
- Glen Tanar GDL located approximately 17.3 km; and
- Keith Hall GDL located approximately 17.8 km to the north-east.

6.5.21 Where relevant, potential effects on these assets are considered further within the Cultural Heritage Assessment in **Chapter 7** of this EIAR.

Published Landscape Character Descriptions

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

- SNH (now NatureScot) National Landscape Character Assessment (2019);
- Aberdeenshire Strategic Landscape Capacity Assessment [ASLC] for Wind Energy (2014)[13];
- Cairngorm Renewable Energy Non-Statutory Guidance (2021).

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

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

Landscape Character Types Covering the Site

6.5.24 With reference to **Figures 6.12 and 6.13**, the proposed turbines and the majority of the wind farm access tracks and associated infrastructure are located within LCT 22 Moorland Plateau (i) Grampian Outliers as defined in the ASLC. The LCT occurs at numerous locations within the western part of Aberdeenshire around the periphery of the CNP. The document summarises these areas as:

6.5.25 *"The Grampian Outliers are moorland spurs extending out from the Cairngorm Massif into the surrounding farmland, forming promontories. They are usually smooth rolling hills of both gentle and steep relief, with occasional dramatic rocky outcrops such as Bennachie, Mither Tap and Tap O'Noth. These hills are distinctive landmarks integral to the landscape identity of Aberdeenshire and have qualities of wilderness and remoteness. They have simple bare moorland tops, extensive conifer plantations on slopes and distinctive fields at their base. Steadings lie at the base of slopes in sheltered locations. They have a high degree of integrity and many are popular for recreation providing excellent viewpoints out across Aberdeenshire."*

6.5.26 The ASLC goes on to identify these areas as having **high landscape value**, **high landscape character sensitivity,** a **high visual sensitivity** and an overall **high sensitivity** to wind energy development but notes that wind energy is a component of the existing landscape character of some of the occurrences of the LCT, with further development consented since the ASLC was published. The ASLC also notes that wind energy in adjacent LCAs is a component of available views from some these LCTs.

6.5.27 A short section of the access track, one borrow pit search area and a temporary enabling works compound are located within the western fringe of LCT 1 (ix) Central Wooded Estates. The ASLC describes this area as:

6.5.28 *"characterised as a rolling landform with low hills and wide valleys. There are pockets of small-scale relief and open views in some areas. Dense woodland is a consistent feature; the strong woodland structure is associated with numerous estate policies. There are other features such as dressed stonewalls, formal gateways and avenues of Beech trees. It is a well-settled landscape spreading out from around the city of Aberdeen. There are the larger towns of Inverurie and Kintore, together with the smaller villages of Monymusk and Kenmay. It is crossed by the A96 and the main Inverness to Aberdeen railway. There are eight HGDL and numerous large houses. It rises up in the west to the large distinctive bulk of Bennachie."*

6.5.29 The ASLC identifies this area as having medium high landscape value, medium landscape character sensitivity, a medium high visual sensitivity and an overall medium high sensitivity to wind energy development.

6.5.30 However, since the ASLC was published in 2014, NatureScot has prepared revised guidance[14] on sensitivity assessment and advises that updating of existing studies may be required as development patterns and technology change and that reference to 'capacity' should be removed. The guidance also notes that *"a finding of 'high sensitivity' does not necessarily mean that there is no ability to accommodate development and 'low' sensitivity does not necessarily mean there is definitely potential for development"*.

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

Other Landscape Character Types to be assessed

6.5.32 In order to consider the indirect effects of the Proposed Development on landscape character, landscape character types within 35 km of the Proposed Development have been illustrated on **Figure 6.12**, and those located within the detailed 20 km LVIA Study Area are illustrated on **Figure 6.13**. The LCTs within 20 km have also been overlaid with the ZTV at **Figure 6.14**.

6.5.33 An initial filtering exercise has been undertaken to determine which LCTs would have the potential for significant effects to arise and would therefore require detailed consideration in this chapter. The intention has been to ensure that the level of attention given to each character type is proportionate to the likelihood of significant effects arising. The discussion below summarises the process followed in deciding which character types have the potential to experience significant effects and hence to scope out various character types from further consideration.

6.5.34 With reference to **Figure 6.12** and the blade tip ZTV at **Figure 6.3**, all LCTs located between 20 km and 35 km have been scoped out of further assessment, on account of the distance from the Proposed Development, the influence of other closer wind farm development and the relatively limited theoretical visibility. It is acknowledged that there may be very limited potential for effects on the character of available views from these LCTs but there would be no potential for significant effects to arise.

6.5.35 All LCTs present within the detailed 20 km LVIA Study Area have been subject to an initial sieving exercise. The findings of this exercise are presented at **Table 6.3.1** of **Appendix 6.3**.

6.5.36 The LCTs assessed in detail in this chapter are:

- LCT 1 (ix) Central Wooded Estates – Proposed Development is partly located within this LCT;

- LCT 22 (i) Grampian Outliers – Proposed Development is partly located within this LCT;
- LCT 25 (ii) Deeside located approximately 1.4 km to the south;
- LCT 11 (i) The Cromar Uplands located approximately 1.9 km to the west;
- LCT 22 (i) Grampian Outliers located approximately 6.3 km to the north-west;
- LCT 22 (i) Grampian Outliers located approximately 6.4 km to the south;
- LCT 22 (ii) The Mounth located approximately 8 km to the south; and
- LCT 22 (i) Grampian Outliers located approximately 10.7 km to the west.

Local Landscape Description and Character Appraisal

6.5.37 A plan illustrating the landscape features/elements within the Site and its immediate context (5 km radius of the turbines) is provided in **Figure 6.16**. The following discussion provides an overview of the physical and perceptual characteristics of the Site and immediately surrounding landscape without particular reference to published landscape character types.

Topography

6.5.38 Topography within 35 km of the Proposed Development is illustrated at **Figure 6.15**.

6.5.39 The topography of the Site is characterised as a narrow upland plateau flanked by hillslopes and extensive forest plantation and forming a notable topographical feature experienced in many views from the wider surrounding lower-lying landscape.

6.5.40 The elevation of the Site ranges from approximately 110 m Above Ordnance Datum (AOD) in the eastern part of the Site where it meets the B977 and approximately 471 m AOD in the western part of the Site. In the western part of the Site are the distinct hill tops of Hill of Fare in the western central part of the Site, Hill of Corfiedly (431 m AOD) and Craigrath (436m AOD) at the south-western edge of the Site and Tornamean (458 m AOD) and Blackyduds (433 m AOD) in the north-western part of the Site. Elevation reduces in the eastern part of the Site with the hilltops of Greymore (393 m AOD) at the northern edge of the Site and Meikle Tap (359 m AOD) in the eastern half of the Site.

6.5.41 To the north of the Site, the ground slopes north towards Auchorie Burn, Bethlin Burn and Gormack Burn. To the east, the ground slopes towards the continuation of Gormack Burn, while to the south the hills slope towards Burn of Cluny and Bo Burn and to the west towards Blacklinn and Learney burns.

6.5.42 Beyond the immediate environs of the Site, the land is generally lower in elevation and rolling with occasional hilltops with areas of higher ground to the north and south of the Dee Valley. The Cairngorm Mountains provide the backdrop within the western and south-western parts of the wider study area, while the eastern part of the study is lower in elevation.

Watercourses and Drainage

6.5.43 Several small burns cross through the Site. In the north-western part of the Site between Tornamean and Blackyduds, Gormack Burn flows in a north-easterly direction down the northerly slopes and through Midmar Forest. In the north-eastern part of the Site a small tributary flows in a north-easterly direction down the northern slopes of Meikle Tap, joining Gormack Burn.

6.5.44 In the central southern part of the Site, Burn of Corrichie flows down between Craigarth, Blackyduds, Brown Hill and Meikle Tap, continuing southwards beyond the Site towards Bo Burn.

6.5.45 In the wider surrounding landscape, the River Dee flows through the southern part of the study area, while the River Don is the main watercourse passing through the northern part of the Study Area. Both of these rivers are fed by a broad network of burns.

Vegetation

6.5.46 The site of the Proposed Development comprises an area of predominantly open moorland consisting of dry heath, acid grassland, bracken and regenerating conifers. The lower slopes of the Hill of Fare are flanked to the north by the extensive conifer plantation woodland at Midmar Forest.

6.5.47 Within the southern part of the Site, the Burn of Corrichie valley is partly wooded although some areas have been felled, while the southern hillslopes of Hill of Kennerty, Craigbeg, Myrie Hill and Berry Hill and also partly wooded. Some of the woodland is classified as Ancient Woodland.

6.5.48 Within the wider Study Area, managed grassland fields in the lower-lying valleys are dotted with trees along watercourses with occasional shelterbelts and small plantation woodlands dotted across the agricultural landscape.

Built Infrastructure

6.5.49 The majority of the site does not feature any built infrastructure, except for the forest access tracks that cross the upland plateau and a small building used as a shooting lodge. In the eastern part of the Site, a private radio mast is located at the summit of Meikle Tap close to the trig point and stone cairn.

6.5.50 Within the wider landscape, there are numerous individual farmsteads and small groups of properties, villages and occasional small towns, situated mainly within the

more settled valley landscapes, with some properties located at slightly higher elevations along the main routes that pass through the area.

6.5.51 Within the wider landscape within the detailed 20 km LVIA study area there are several main transport routes comprising: the A96 passing through the northern part of the study area approximately 13.6 km to the north of the Proposed Development passing between Inverurie and Aberdeen; the A944 approximately 6 km to the north of the Proposed Development passing between Alford and Aberdeen; the A980 approximately 2.1 km to the west of the Proposed Development passing between Alford and Banchory; the A93 located approximately 5 km to the south passing through Banchory and continuing east towards Aberdeen; the A957 approximately 8.1 km to the south-east leading from the A93 and continuing south-eastwards to Stonehaven; and the A90 approximately 14.4 km to the east passing around the western periphery of Aberdeen.

6.5.52 In addition to the primary routes, there is an extensive network of B roads and minor roads passing through the study area. These comprise the B993 approximately 2.6 km to the west; the B9119 approximately 2.2 km to the north and the B977 and B9125 approximately 3 km to the south and east.

6.5.53 The large McIntosh depot situated to the immediate south-east of the Site is a notable built feature in views experienced from elevated moorland plateau where the Site is located.

6.5.54 Within the detailed 20 km LVIA study area there are several single wind turbines within the immediate surrounding landscape to the north of the site at Auchmore, Auchorie Farm, Easter Tolmauds, Fordie Farm and land north west of Thistleycrook. In the southern part of the study area are the operational wind farms of Mid Hill I & II and Meikle Carewe and the consented schemes at Craigneil and Fetteresso. To the east of the Proposed Development are the operational turbines at South Lasts Farm. Other wind farms within 20 km are illustrated in **Figure 6.28**.

Sensory and Perceptual Characteristics

6.5.55 The Site comprises a narrow, open moorland ridge that forms a notable landscape feature seen in many views from the lower-lying agricultural landscapes that surround it. The Site's elevation allows broad sweeping views in all directions across the low-lying and more contained settled valley landscapes. These views extend to upland areas and Grampian Hills to the west of the Site and the distant Cairngorms to the south-west that provide a distant visual backdrop.

6.5.56 In addition to the more settled, farmed landscapes surrounding the Site, the moorland landscape reflects the cultural importance of the landscape that has been shaped by human influences through its management and use for sport and recreation and for upland grazing. The adjacent forestry plantations and nearby operational wind farms are further evidence of man's influence on the landscape.

6.5.57 Although the Site exhibits some perception of remoteness and tranquillity it is strongly influenced by its proximity to these other moderating influences.

Forces for Future Change in the Landscape

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

6.5.59 Within the wider landscape, there are several commercial wind energy developments and several consented schemes which, if built, would also influence the existing nature of the wider landscape surrounding the Proposed Development as set in the Cumulative Assessment at **Section 6.9**.

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

Visual Receptors

6.5.61 With reference to the blade tip ZTV at **Figure 6.3** and **Figure 6.4**, theoretical visibility is restricted to a principal area that extends approximately 15 km to the north, east and west and approximately 10 km to the north-west. Although it is acknowledged theoretical visibility is predicted at greater distances, it does become patchier and more intermittent and limited to the more elevated parts of the wider surrounding landscape.

6.5.62 Thus it was determined that there was no potential for the Proposed Development to result in any significant visual effects at distances over 20 km from the site, and furthermore, that with distance from the site, the likelihood of significant visual effects occurring incrementally decreases. Therefore, whilst the primary study area

for this LVIA extends out to 35 km and the various figures which accompany this report illustrate an initial 35 km study area, the assessment has focused on visual receptors within the detailed 20 km LVIA study area.

6.5.63 Interpretation of the ZTVs (figures **6.3** through to **6.6** and the ZTV quadrants at figures **6.19** through to **6.26**) assisted identifying potentially sensitive visual receptors of the Proposed Development. Principal visual receptors within the surrounding landscape are illustrated at figures **6.17** and **6.18** and are identified below.

Residential Receptors and Settlements

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

6.5.65 With reference to the blade tip ZTVs at figures **6.3** and **6.4** and figures **6.19** through to **6.22** only those properties or settlements with theoretical visibility of the Proposed Development have been identified below. Those settlements with no theoretical visibility have not been considered further within this chapter. Residential receptors are also shown on **Figure 1** of **Technical Appendix 6.6**.

Residential Properties within 2 km

6.5.66 There are 28 residential properties within 2 km of the Proposed Development. Effects on these properties are considered further in the Residential Visual Amenity Assessment at **Appendix 6.6**. The location of these properties is illustrated on **Figure 1** of **Technical Appendix 6.6**.

Settlements within 5 km

6.5.67 Within 5 km of the Proposed Development the nearest settlements, defined in the Aberdeenshire LDP[15] experiencing theoretical visibility of the Proposed Development are:

- Torphins - located approximately 3.4 km to the west;
- Midmar located 3.6 km to the north;
- Echt - located approximately 4 km to the north-east;
- Inchmarlo – located approximately 4.7 km to the south; and
- Banchory located approximately 6 km to the south.

Settlements within 5 to 10 km

6.5.68 Settlements within 5 to 10 km from the Proposed Development, defined in the Aberdeenshire LDP experiencing theoretical visibility of the Proposed Development are:

- Sauchen & Cluny – located approximately 6.7 km to the north;
- Millbank – located approximately 7.1 km to the north;
- Dunecht – located approximately 7.4 km to the north-east;
- Lumphanan – located approximately 7.9 km to the north-west;
- Garlogie – located approximately 7.9 km to the east;
- Crathes – located approximately 8.1 km to the south-east;
- Lyne of Skene – located approximately 9.2 km to the north-east;
- Park – located approximately 9.4 km to the south-east;
- Drumoak – located approximately 9.5 km to the south-east; and
- Kirkton of Durris – located approximately 9.6 km to the south-east.

Settlements within 10 to 15 km

6.5.69 Settlements within 10 to 15 km from the Proposed Development, defined in the Aberdeenshire LDP experiencing theoretical visibility of the Proposed Development are:

- Monymusk – located approximately 11 km to the north;
- Kirkton of Skene – located approximately 11 km to the north-east;
- Westhill – located approximately 11.1 km to the east;
- Woodlands of Durris – located approximately 11.6 km to the south-east;
- Kemnay – located approximately 12.1 km to the north;
- Aboyne – located approximately 13.6 km to the west;
- Kintore – located approximately 13.8 km to the north-east; and
- Blackburn – located approximately 14.5 km to the north.

Settlements within 15 to 20 km

6.5.70 Settlements within 15 to 20 km from the Proposed Development, defined in the Aberdeenshire LDP experiencing theoretical visibility of the Proposed Development are:

- Inverurie & Port Elphinstone – located approximately 15.7 km to the north-east;
- Keig – located approximately 16.5 km to the north-west;
- Blairs – located approximately 17.3 km to the east;
- Hatton of Fintray – located approximately 18.5 km to the north-east;
- Kinmuck – located approximately 19.8 km to the north-east;

6.5.71 An initial filtering exercise has been undertaken of settlements within the detailed 20 km LVIA study area to determine which have the potential to experience

significant effects and would therefore require detailed consideration in this chapter. The intention has been to ensure that the level of attention given is proportionate to the likelihood of significant effects arising. The findings of the initial filtering exercise are presented at **Table 6.4.1** of **Technical Appendix 6.4**.

6.5.72 This filtering exercise identified that all settlements within 5 km and Sauchen and Cluny located approximately 6.7 km to the north of the Proposed Development have the potential to experience significant visual effects. The effects on these settlements are considered further at **Section 6.6**.

Core Paths

6.5.73 There are numerous core paths located within the detailed 20 km study area. These are illustrated at **Figure 6.18**.

6.5.74 Beyond 10 km theoretical visibility from the core paths is more limited. Therefore, the assessment has focussed on core paths within 10 km from the Proposed Development.

6.5.75 An initial filtering exercise has been undertaken to determine which have the potential for significant effects to arise and would therefore require detailed consideration in this chapter. The intention has been to ensure that the level of attention given to each core path is proportionate to the likelihood of significant effects arising. The findings of the initial sieving exercise are presented at **Table 6.4.2** of **Appendix 6.4**.

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

- Core Path 616.01 – Torphins Wood Circular;
- Core Path 616.02 -Torphins: Cemetery Walk;
- Core Path 405.02 - Myriewell Circular;
- Core Path 405.01 - Echt to North Kirkton Woods;
- Core Path 604.06 – Upper Lochton to Corsee Road;
- Core Path 417.01 - Sauchen Farm to A944;
- Core Path 7LD.02.05 – The Deeside Way;
- Core Path 604.01 Banchory River Bank Golf Course; and
- Core Path 614.02 – Scolty Hill Path.

Cycle Routes

6.5.77 There are numerous cycle routes located within the detailed 20 km study area. These are illustrated at **Figure 6.18**.

6.5.78 Beyond 10 km theoretical visibility from the routes is more limited and intermittent. Therefore, the assessment has focussed on core paths within 10 km from the Proposed Development.

6.5.79 An initial filtering exercise has been undertaken to determine which have the potential for significant effects to arise and would therefore require detailed consideration in this chapter. The intention has been to ensure that the level of attention given to each core path is proportionate to the likelihood of significant effects arising. The findings of the initial filtering exercise are presented at **Table 6.4.3** of **Technical Appendix 6.4**.

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

- Aberdeenshire Cycle Route - Midmar – Dunecht;
- Aberdeenshire Cycle Route - Westhill - The Drum Castle Round; and
- National Cycle Network Route 195.

Roads and Railways

6.5.81 There are numerous roads located within the detailed 20 km study area. These are illustrated at **Figure 6.18**.

6.5.82 Beyond 10 km theoretical visibility is more limited and intermittent. Therefore, the assessment has focussed on routes within 10 km from the Proposed Development.

6.5.83 An initial filtering exercise has been undertaken to determine which have the potential for significant effects to arise and would therefore require detailed consideration in this chapter. The intention has been to ensure that the level of attention given to each route is proportionate to the likelihood of significant effects arising. The findings of the initial filtering exercise are presented at **Table 6.4.4** of **Technical Appendix 6.4**.

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

- A944;
- A980;
- A93;
- B993;
- B9119;
- B9125; and
- B977.

6.5.85 There are no railways located within 10 km of the Proposed Development and as such effects on rail users are not considered further within the assessment.

Recreation and Tourism

6.5.86 Outside of the main settlements of Aberdeen, Inverurie and Stonehaven, within the 35 km study area the Cairngorms National Park is one of the main tourism destinations attracting thousands of visitors each year who visit to appreciate its dramatic scenery, participate in a range of winter and summer sports, and appreciate its dark sky qualities at the Cairngorms Dark Sky Park.

6.5.87 The Dark Sky Park is situated to the south-east of the Hills Cromdale between Glenlivet and Tomintoul and extends south-eastwards to the Ladder Hills. The Dark Sky Park is located outside of the initial 35 km LVIA study area. As such effects on it are not considered further within the assessment.

Assessment Viewpoints

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

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

6.5.90 Error! Reference source not found.**Table 6.2** identifies the 22 assessment viewpoints. The locations of these viewpoints are illustrated on figures **6.3** and **6.4**.

Table 6.2 – Assessment Viewpoints

Viewpoint	OS Grid Reference	Approximate Distance to Nearest Turbine	Receptor Type
Viewpoint 1 - B9119, junction with minor road to Midmar (N)	368370, 806710	2,724 m (T1)	Road users
Viewpoint 2 - B9119, Echt (N)	373719, 805680	4,004 m (T16)	Residents Road Users
Viewpoint 3 - B9125, layby west of Westerton	375811, 802668	5,460 m (T16)	Road users
Viewpoint 4 - A980, near Brockton (N)	368387, 799409	2,354 m (T9)	Dee Valley SLA Road Users
Viewpoint 5 - Torphins, Woodside Road	362772, 801861	4,231 m (T5)	Residents Road User
Viewpoint 6 - B993, near Hillend	365385, 805264	2,723 m (T4)	Road users
Viewpoint 7 - Minor Road near Pitcullen	364772, 802248	2,197 m (T5)	Road users
Viewpoint 8 - Minor Road near The Nuek	373368, 797842	6,198 m (T10)	Road users
Viewpoint 9 - Minor Road north of Drumoak	378940, 800127	9,154 m (T16)	Road users
Viewpoint 10 - Meikle Tap	372225, 802582	2,010 m (T16)	Walkers, Cyclists
Viewpoint 11 - Barmekin Hill	372567, 807086	4,244 m (T16)	Walkers
Viewpoint 12 - Sauchen, Main Street	370104, 810830	7,020 m (T1)	Residents
Viewpoint 13 - Benaquhallie	360730, 808608	8,359 m (T4)	Walkers
Viewpoint 14 - Tom's Cairn	361579, 794373	9,755 m (T5)	Dee Valley SLA Walkers
Viewpoint 15 - Brimmond Hill	385528, 809101	16,150 m (T16)	Walkers
Viewpoint 16 - Torphins Public Park *	362225, 802073	4,748 m (T5)	Residents Visitors
Viewpoint 17 - Easter Beltie river restoration site *	363915, 800077	3,895 m (T5)	Dee Valley SLA Road users
Viewpoint 18 - Layby south of Pitmurchie House	359770, 801938	7,206 m (T5)	Dee Valley SLA Road users
Viewpoint 19 - Area of the Cowshed on A980 * (N)	369939, 797266	4,750 m (T10)	Dee Valley SLA Residents Road users
Viewpoint 20 - Westhill *	381279, 807304	11,543 m (T16)	Residents Road users
Viewpoint 21 - Lyne of Skene Playpark *	376171, 810689	9,267 m (T16)	Residents Road users
Viewpoint 22 - Glassel Hall *	365107, 799125	3,860 m (T5)	Dee Valley SLA Road users

* Additional LVIA Viewpoint added following feedback received at scoping.

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

6.5.91 **Technical Appendix 6.5** provides a baseline description of the view from each assessment viewpoint, followed by a detailed analysis and assessment of the effects.

6.6 Assessment of Potential Effects

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

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

Project Description

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

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

- 16 turbines. Turbines 1, 6, 8, 11 and 12 would have a blade tip height of 200 m and a hub height of 122.5 m. The remaining eleven turbines would have a blade tip height of 180 m and a hub height of 102.5 m. The proposed turbines would be three-bladed horizontal axis machines; the finish and colour of the turbines would be semi-matt and pale grey in colour);
- visible, medium intensity (minimum 2000 candela (cd) at horizontal and slightly above) steady red aviation warning lights on the nacelles of seven of the 16 turbines. There would be no intermediate tower lights;
- internal site access tracks (approximately 6.7 km of new tracks and 17.7 km of upgraded tracks);
- one watercourse crossing to the north-east of Meikle Tap;
- a temporary concrete batching plant located near to the site entrance from the B977;
- crane hardstanding areas adjacent to each turbine;
- a substation, battery energy storage system (BESS) and control building;
- on-site underground cabling;
- up to six temporary borrow pit workings;

- temporary construction compound within the centre of the site and one enabling works compound close to the entrance to the site;

Effects during Construction on Existing Landscape Features

6.6.5 As identified in the baseline section, the existing landscape features present on the site are:

- Moorland vegetation;
- Existing conifer trees; and
- Watercourse/drainage channels.

6.6.6 The construction phase would result in the removal of moorland vegetation and other such ground-level vegetation, through the construction of on-site access tracks, hardstanding areas, a substation and battery energy storage compound, on-site underground cabling, temporary borrow pit workings, construction compounds and turbine foundations. Underground electricity cables would generally follow access tracks.

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

6.6.8 Referring to the Project Description found at **Chapter 2** of the EIAR, up to 6 borrow pit working search areas would be required. The final location, number and estimate of material won from each search area would be determined once full ground investigation works and testing have been completed. Five of the six borrow pits would be located within the Grampian Outliers Landscape Character Type (LCT 22(i)) and one borrow pit search area would be located within the Central Wooded Estates Landscape Character Type (LCT 1(ix) as defined in the ASLC). Their excavation would be short-term and would result in the removal of moorland and grassland vegetation, soils and subsurface rock. Borrow workings would be restored following construction so as to encourage re-vegetation although it is accepted that some regrading of the land profile would be expected.

6.6.9 The moorland vegetation is a frequently encountered feature of the wider surrounding open upland landscape. It does not form part of the fabric of a site designated for its scenic value although it is characteristic feature of the upland moorland landscape. The moorland vegetation is a man-made landscape element that has evolved over time through land management practices and management of the moorland for sport. The ongoing change and modification resulting from moorland management practices, lowers its susceptibility. Combining its value and susceptibility results in the sensitivity of the moorland and grassland vegetation being low.

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

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

6.6.12 The remaining existing conifer trees, including the area identified as Ancient Woodland, would experience no change as the area to the south-east of the high point of Blackyduds has already been felled.

6.6.13 Only one watercourse course crossing would be required, which is the upgrade of an existing watercourse crossing located within the north-eastern part of the site to the north of Meikle Tap. The site is incised by numerous channels created as water flows off the high ground. These features are considered to be of low value in landscape terms but highly susceptible to changes which affect their course or their quality. Combining their value and susceptibility results in the watercourse and drainage features having a medium level of sensitivity.

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

Summary of effects on existing landscape features

6.6.15 The Proposed Development would result in a moderate minor effect to the moorland vegetation, no change to the existing remaining conifer trees and no greater than a moderate minor effect to watercourses and drainage channels. All these effects are considered to be not significant.

Assessment of Effects on Landscape Character

6.6.16 The LCTs covering the initial 35 km LVIA study area are shown on **Figure 6.12** and within the detailed 20 km LVIA study Area at **Figure 6.13**. LCTs within 20 km of the Proposed Development overlaid with the blade tip ZTV are illustrated at **Figure 6.14**.

6.6.17 As explained in the baseline section at **Paragraph 6.5.35**, an initial filtering process has been carried of all LCTs within the detailed 20 km LVIA study area which identified that, in addition to the two LCTs in which the Proposed Development is sited, a further six LCTs have the potential to be significantly affected by the Proposed Development. The LCTs assessed in detail in this chapter are:

- LCT 1 (ix) Central Wooded Estates – Proposed Development is partly located within this LCT;
- LCT 22 (i) Grampian Outliers – Proposed Development is partly located within this LCT;
- LCT 25 (ii) Deeside located approximately 1.4 km to the south;
- LCT 11 (i) The Cromar Uplands located approximately 1.9 km to the west;
- LCT 22 (i) Grampian Outliers located approximately 6.3 km to the north-west;
- LCT 22 (i) Grampian Outliers located approximately 6.4 km to the south;
- LCT 22 (ii) The Mounth located approximately 8 km to the south; and
- LCT 22 (i) Grampian Outliers located approximately 10.7 km to the west.

Sensitivity of Landscape Character to Wind Energy Development

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

6.6.19 The ASLC[16] provides some guidance in assessing the sensitivity of those LCTs brought forward into detailed assessment. However, it should be read with caution as it does not necessarily just consider landscape sensitivity (value and susceptibility). NatureScot advise that such studies should not be referred to as '*capacity studies*' as no local or regional targets are available on which to determine the 'capacity' for development. They advise that these studies *"should reflect their purpose, which is to provide a strategic assessment of relative landscape and visual sensitivity to certain defined forms of development"*[17].

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

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

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

Table 6.3 – Landscape Character Sensitivity

Landscape Character Type	Value	Susceptibility	Sensitivity
LCT 1 (ix) Central Wooded Estates	Medium high	Medium high	Medium high
LCT 22 (i) Grampian Outliers	High	High	High
LCT 25 (ii) Deeside	Medium	Medium high	Medium high
LCT 11 (i) The Cromar Uplands	Medium high	Medium	Medium
LCT 22 (ii) The Mounth	Medium high	Medium high	Medium high

Effects on Landscape Character During Construction

6.6.23 The 16 proposed turbines, crane pads, construction compound, substation, control building and energy storage facility, five of the six borrow pit search areas and the majority of the access tracks are located in the Grampian Outliers landscape character type (LCT 22 (i)). A small section of the access tracks, one borrow pit search area and the temporary enabling works compound are located within the Central Wooded Estates landscape character type (LCT 1 (ix)). This would result in direct effects on landscape character during construction on these LCT.

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

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

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

6.6.27 As previously discussed, there would be no significant effects on any existing landscape features. Whilst there would be localised areas of high magnitude of change directly, there would be an overall medium magnitude of change upon the central part of the Grampian Outliers LCT (LCT 22 (i)) during the construction phase. This would result in a **major moderate** temporary additional effect on the central part of the LCT where the Proposed Development is located, which would be significant.

6.6.28 Construction activity would occur in an elevated, upland central part of the LCT that is surrounded to the north and south by wooded hillslopes which would serve to limit its influence on the surrounding slopes and lower-lying parts of the LCT. Overall, there would be no greater than a low magnitude of change and a **moderate minor** temporary additional effect on the LCT as a whole which would not be significant.

6.6.29 In terms of effects on the landscape character of the Central Wooded Estates LCT (LCT 1 (ix)) during the construction, activity would be limited to a very small section of the western fringe of the LCT where the site entrance, a small section of access track, a temporary enabling works compound and one borrow pit search would be located. This would introduce a low magnitude of change and result in a **moderate minor** temporary additional effect on a very small part of the western edge of the LCT, which would not be significant.

6.6.30 Given the extensive size of the wider LCT and the very small part of it that would be affected, overall there would be a very low magnitude of change, with temporary additional effects considered to be no greater than **minor to no effect** which would not be significant.

6.6.31 In terms of indirect effects on the other landscape character types brought forward into detailed assessment, LCT 25 (ii) Deeside would experience a low magnitude of change. There would be limited additional effects as construction takes place on the hillside above the valley. However, views of activity taking place on the upland plateaux would be largely restricted by the landform and the wooded slopes. Views to cranes would be limited, with most construction taking place away from the transition between the upland and the valley, resulting in no greater than a low magnitude of change and a **moderate minor** temporary additional effect that would not be significant.

6.6.32 LCT 11 (i) Cromar Uplands located to the west of the Proposed Development would experience a low magnitude of change with views of construction activity partially restricted by intervening vegetation, resulting in no greater than a **moderate minor** temporary additional effect that would not be significant.

6.6.33 All other LCTs brought forward into detailed assessment are situated in excess of 6 km from the Proposed Development. These are: LCT 22 (i) Grampian Outliers located approximately 6.3 km to the north-west; LCT 22 (i) Grampian Outliers located approximately 6.4 km to the south; LCT 22 (ii) The Mounth located approximately 8 km to the south; and LCT 22 (i) Grampian Outliers located approximately 10.7 km to

the west. At such distances from the Proposed Development the levels of temporary, indirect additional effects to the character of these areas would be very limited and would result in no greater than a very low magnitude of change and **minor** effects that would not be significant.

Table 6.4 – Assessment of Effects on Landscape Character During Construction

Landscape Character Type	Sensitivity	Magnitude of Change	Effect	Significant
LCT 22 (i) Grampian Outliers (central part where the Proposed Development is located)	**High**	**Medium**	**Major moderate**	**Yes**
LCT 22 (i) Grampian Outliers (parts surrounding the Proposed Development)	High	Low	Moderate minor	No
LCT 1 (ix) Central Wooded Estates (western part where the Proposed Development is located)	Medium high	Low	Moderate minor	No
LCT 1 (ix) Central Wooded Estates (parts surrounding the Proposed Development)	Medium high	Very low	Minor/no effect	No
LCT 25 (ii) Deeside	Medium high	Low	Moderate minor	No
LCT 11 (i) The Cromar Uplands	Medium	Low	Moderate minor	No
LCT 22 (i) Grampian Outliers located approximately 6.3 km to the north-west;	Medium high	Very low	Minor	No
LCT 22 (i) Grampian Outliers located approximately 6.4 km to the south;	Medium high	Very low	Minor	No
LCT 22 (ii) The Mounth located approximately 8 km to the south; and	Medium high	Very low	Minor	No
LCT 22 (i) Grampian Outliers located approximately 10.7 km to the west.	Medium high	Very low	Minor	No

6.6.34 **Bold** text indicates a significant effect

Effects on Landscape Character During Operation

6.6.35 The effects on landscape character are discussed below in relation to each landscape character types brought forward into detailed (see **Technical Appendix 6.3**). The magnitude of change on landscape character as a result of the Proposed Development has been determined using professional judgement based on the following factors:

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

6.6.36 To aid the consideration of the operational effects on landscape character, the landscape character types within the detailed 20 km LVIA study area have been overlaid with the blade tip ZTV in **Figure 6.14**.

6.6.37 Beyond the immediate environs of the site, the ground level components of the Proposed Development, including the BESS and sub-station, would not be discernible from lower-lying areas due to the elevation of Hill of Fare upon which the Proposed Development would be located. Therefore, effects on landscape character, as experienced in the wider landscape, for most locations arise largely in relation to the introduction of the 16 proposed turbines into the landscape and the resultant changes to the experience of landscape character.

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

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

6.6.40 A summary of the effects on landscape character during operation is presented in **Table 6.5**. Note that for all character types stated within this table, the duration of the Proposed Development is considered to be long-term and reversible.

LCT 22 (i) Grampian Outliers

6.6.41 The 16 proposed turbines and the majority of the associated infrastructure are located within the central upland part of this LCT, which covers Hill of Fare and its side slopes. Views from this LCT are broadly represented by viewpoints 1, 4, 6, 7 and 10 (see **Volume 3)**.

6.6.42 With reference to **Figure 6.14** showing landscape character types within 20 km overlaid with the blade tip ZTV, there is extensive theoretical visibility of up to all 16 turbines across the majority of the upland, moorland plateaux where the Proposed Development would be located. The topography of the hilltops side slopes means that almost from the edge of the Site, theoretical visibility of the proposed turbines reduces such that by LCT's outer boundary fewer turbines would be visible. Actual visibility would be reduced further due to the plantation woodlands on parts of the slopes.

6.6.43 The proposed turbines would introduce direct effects on the LCT in the immediate vicinity of the Site and indirect effects on the remaining parts of the LCT. The 16 turbines would introduce tall vertical structures that would extend up to 200 m to blade tip (five turbines up to 200 m and the remaining eleven up to 180 m to blade tip). However, the turbines would be introduced into a large-scale, open upland landscape whose characteristics, such as its smooth, gently rounded profile and simple land cover are often considered suitable for wind farm development.

6.6.44 Although the proposed turbines would introduce a large degree of change to the upland plateaux, their location serves to contain the landscape character effects. Referring to the representative viewpoints (viewpoints 1, 4, 6, 7 and 10) it is inevitable that the turbines have a characterising effect but the scale of the effect on the LCT, introducing a 'Moorland Plateaux with Wind Turbines' but the effect is not so great that the turbines become the single-most dominant characteristic and the distinctive form of the hill remains as the most important defining characteristic element.

6.6.45 Within the central, upland part of the LCT the Proposed Development would introduce a substantial change, resulting in a high magnitude of change and a **major,** therefore, **significant effect**. From the surrounding hillslopes, the reduction in the extent of visibility and the number of visible turbines means that the magnitude of change would reduce slightly but it is considered to remain high and result in a **major,** therefore, **significant effect**.

LCT 1 (ix) Central Wooded Estates

6.6.46 This LCT brought forward into detailed assessment is situated to the immediate west of the LCT 22 (i) Grampian Outliers, where the Proposed Development is located. A small section of the access track, one borrow pit search area and a temporary enabling works compound would be located within the western edge of this LCT. Views from this LCT are represented by viewpoints 2, 3, 9, 12, 20 and 21 (see **Volume 3)**.

6.6.47 With reference to **Figure 6.14** illustrating landscape character types within 20 km overlaid with the blade tip ZTV, within 5 km of the Proposed Development parts of the LCT would experience theoretical visibility of up to all 16 turbines. There are some notable areas near the site entrance on the B977 where there would be limited theoretical visibility of the proposed turbines. However, in these areas there would be potential for views of the site entrance and the associated infrastructure elements sited close to the entrance. Also within 5 km of the Proposed Development there are some notable parts to the north that would not experience any theoretical visibility.

6.6.48 The Proposed Development would introduce indirect effects to a very small part of the western edge of the LCT in the vicinity of the site access and where the access track, temporary enabling works compound and one borrow pit search area would be located. It is assumed that the site access off the B977 would require some modification in order to create an appropriate access off the highway. The wind farm access track would follow the route of an existing access track and therefore would introduce minimal change to the baseline landscape character. The borrow pit search area and the temporary enabling works compound would introduce some additional change.

6.6.49 However, these elements would be diminutive in comparison to the introduction of the proposed turbines in the adjacent LCT, which would have a much greater influence on the character of LCT1 (ix). The Proposed Development would introduce a large scale of change, with up to all 16 turbines visible on the hillside that forms the visual backdrop to many views from the LCT. This would introduce a medium high magnitude of change a **major moderate** and **significant** effect extending to approximately 5 km from the Proposed Development, with a notable area to the east of the site entrance where effects would be more limited.

6.6.50 Beyond 5 km, theoretical visibility from the LCT is slightly more intermittent to the north of the Proposed Development and more continuous to the east of the south. Between approximately 5 km and 7 km the greater distance from the Proposed Development together with the broad scale of the lower-lying farmed landscape and the presence of intervening landform means that the influence of the proposed turbines on the character of the LCT reduces, introducing a medium magnitude of change and resulting in a **moderate** effect which is **significant**.

6.6.51 Between approximately and 7 km and 9 km the influence of the Proposed Development reduces further with the magnitude of change reducing to low medium and resulting no greater than a **moderate effect** that is not significant.

6.6.52 Beyond 9 km theoretical visibility from the LCT becomes more intermittent the magnitude of change would reduce, becoming no greater than low, with effects considered to be **moderate minor** and not significant.

LCT 25 (ii) Deeside

6.6.53 This LCT is located approximately 1.4 km to the south of the Proposed Development. None of the proposed turbines or associated infrastructure would be sited within this LCT. Therefore, any effects discussed below are indirect. Views from the LCT are represented by viewpoints 4, 19 and 22 within 5 km from the Proposed Development and Viewpoint 8 beyond 5 km (see **Volume 3**).

6.6.54 In views north from the LCT, the distinctive form of Hill of Fare provides a prominent focal point on the horizon, providing the backdrop to view, cloaked by conifer plantation woodlands. The Proposed Development would introduce new elements on the horizon, with the surrounding forestry plantation screening views of ground-level components. This would introduce a high magnitude of change and result in a **major moderate and significant** effect on the character of the LCT extending to approximately 7 km from the Proposed Development.

6.6.55 Beyond approximately 7 km, there is no further theoretical visibility to the south and to the south-west, predicted visibility becomes more intermittent. To the south there would be no further effects on the LCT. To the south-west where theoretical visibility is more intermittent, the scale of the turbines is reduced due to the increased distance and the form of Hill of Fare is less distinctive compared with views from the more northerly parts of the LCT. Actual visibility would also be less than predicted due to the extensive woodlands to the north and south of the B993.

6.6.56 Where views are available between approximately 7 km and 9 km to the south-west, the Proposed Development would introduce no greater than a low medium magnitude of change and result in a **moderate effect** that is not significant.

6.6.57 At distances beyond approximately 9 km to the south-west, the magnitude of change would reduce to low, with effects considered to be no greater than moderate minor which is not significant.

LCT 11 (i) The Cromar Uplands

6.6.58 This LCT occurs in a single location approximately 1.9 km to the west of the Proposed Development at its closest point extending to the north-west to beyond 20 km. None of the proposed turbines or associated infrastructure would be sited within this LCT. Therefore, any effects discussed below are indirect. Views from the LCT are represented by viewpoints 5, 6, 7, 16 and 17 within 5 km from the Proposed Development and viewpoints 13 and 18 beyond 5 km (see **Volume 3**).

6.6.59 With reference to **Figure 6.14** illustrating landscape character types within 20 km overlaid with the blade tip ZTV, within 5 km of the Proposed Development parts of the LCT would experience intermittent theoretical visibility of up to all 16 turbines to the north-west of the Proposed Development, while areas to the south-west would experience theoretical visibility of a reduced number of turbines.

6.6.60 The proposed turbines would introduce large, prominent new elements seen on the horizon of the easterly views. Although a reduced number of turbines would be seen from the LCT to the south-west of the Proposed Development, given the prominence of the turbines above the landform, within approximately 5 km the Proposed Development this would introduce a high magnitude of change which would lead to a **major moderate** and significant effect.

6.6.61 With increasing distance, the influence of the proposed turbines on the character of easterly views would reduce with the magnitude of change reducing to medium, resulting in a **moderate** significant effect between approximately 5 and 7 km to the west.

6.6.62 Referring to viewpoints 13 and 18, beyond approximately 7 km, the magnitude of change would reduce to no greater than medium resulting in **moderate** effects that are not significant.

LCT 22 (i) Grampian Outliers

6.6.63 This unit of the Grampian Outliers LCT is located approximately 6.3 km to the north-west of the Proposed Development, extending to over 20 km. None of the proposed turbines or associated infrastructure would be sited within this LCT. Therefore, any

effects discussed below are indirect. Views from the LCT are represented by Viewpoint 13 (see **Volume 3**).

6.6.64 With reference to **Figure 6.14** illustrating landscape character types within 20 km overlaid with the blade tip ZTV, theoretical visibility from the LCT is limited and within the detailed 20 km LVIA study area and is mainly restricted to the eastern fringes of the LCT.

6.6.65 In the south-eastern corner of the LCT theoretical visibility is experienced from the south-east facing slopes where the proposed turbines would be seen above the background landform that provides the view horizon. Although there are existing views of small-scale operational turbines available from this part of the landscape, the proposed turbines would introduce a large and prominent change to the character of available views. This would introduce a medium high magnitude of change and result in a major moderate significant effect that would be experienced up to a distance of approximately 8.5 km.

6.6.66 At distances between beyond approximately 8.5 km up to 15 km, the influence of the proposed turbines on the character of easterly views would reduce with increasing distance such that the magnitude of change would reduce to medium, with effects becoming **moderate** and not significant.

6.6.67 At distances beyond approximately 15 km up to 20 km the magnitude of change would reduce to low with effects becoming **moderate minor** and not significant.

LCT 22 (i) Grampian Outliers

6.6.68 This unit of the Grampian Outliers LCT is located approximately 6.4 km to the south of the Proposed Development and covers relatively small, contained area of high ground in the vicinity of Blackhall Forest. None of the proposed turbines or associated infrastructure would be sited within this LCT. Therefore, any effects discussed below are indirect. Views from the LCT are represented by **Viewpoint 14** (see **Volume 3**).

6.6.69 With reference to **Figure 6.14** illustrating landscape character types within 20 km overlaid with the blade tip ZTV, there is extensive theoretical visibility from the LCT due to the elevation of the ridge of high ground that separates the Dee Valley to the north and the valley of the Water of Feugh to the south.

6.6.70 In views north from the LCT, the distinctive form of Hill of Fare provides a prominent focal point on the horizon that backcloths the broad, lower-lying valley landscape below. The Proposed Development would introduce new elements on the horizon, with the surrounding forestry plantation screening views of ground-level components. This would introduce a medium magnitude of change and result in a **moderate and significant** effect on the character of the LCT extending to approximately 9 km from the Proposed Development.

LCT 22 (ii) The Mounth

6.6.71 This LCT is located approximately 8 km to the south of the Proposed Development. None of the proposed turbines or associated infrastructure would be sited within this LCT. Therefore, any effects discussed below are indirect.

6.6.72 With reference to **Figure 6.14** illustrating landscape character types within 20 km overlaid with the blade tip ZTV, theoretical visibility from the LCT is intermittent and mainly limited to within 15 km from the Proposed Development, beyond which theoretical visibility is very limited and patchy.

6.6.73 This is a large-scale, smooth, rolling upland plateau with extensive forest plantations that provides the backdrop to lower-lying areas. There are a number of operational and consented wind farms located within the area comprising Mid Hill I & II and the consented schemes at Fetteresso and Craigneil. These wind farms which are located within the LCT reduce the area's susceptibility to wind farm development located within another, more distant LCT.

6.6.74 Within approximately 10 km on the north-facing slopes, the Proposed Development would introduce new elements on the horizon in views north from the LCT, with the surrounding forestry plantation screening views of ground-level components. This would introduce a medium magnitude of change and a **moderate significant** effect.

6.6.75 At distances beyond 10 km from the Proposed Development the closer proximity to the existing operational schemes, together with the consented schemes means that the magnitude of change would reduce to low, resulting in **moderate minor** effects that are not significant.

LCT 22 (i) Grampian Outliers

6.6.76 This unit of the Grampian Outliers LCT is located approximately 10.7 km to the west of the Proposed Development, extending to over 15 km. None of the proposed turbines or associated infrastructure would be sited within this LCT. Therefore, any effects discussed below are indirect. Views from the LCT are represented by Viewpoint 13 (see **Volume 3**).

6.6.77 With reference to **Figure 6.14** illustrating landscape character types within 20 km overlaid with the blade tip ZTV, theoretical visibility from the LCT is mainly limited to the eastern half of the LCT.

6.6.78 Views east towards the Proposed Development are influenced to a degree by the distant, existing operational schemes at Mid Hill and the small wind turbine

developments present in the landscape to the north of the Proposed Development. However, the distinctive form of Hill of Fare on the horizon of easterly views forms the backdrop to views.

6.6.79 The Proposed Development would introduce new elements on the horizon, with the surrounding forestry plantation screening views of ground-level components. Given the scale of available views and limited extent of the wind farm within the view, it would introduce a low magnitude of change and result in a **moderate minor** effect that is not significant.

6.6.80 A summary table of the effects on landscape character types during operation is provided below at **Table 6.5**.

Table 6.5 – Assessment of Effects on Landscape Character During Operation

Landscape Character Type	Sensitivity	Magnitude of Change	Effect	Significant
LCT 22 (i) Grampian Outliers (where the Proposed Development is located)	**High**	**High**	**Major**	**Yes**
LCT 1 (ix) Central Wooded Estates (extending to approximately 5 km)	**Medium high**	**Medium high**	**Major moderate**	**Yes**
LCT 1 (ix) Central Wooded Estates (Between approximately 5 and 7 km)	**Medium high**	**Medium**	**Moderate**	**Yes**
LCT 1 (ix) Central Wooded Estates (Between approximately 7 and 9km)	Medium high	Low medium	Moderate	No
LCT 1 (ix) Central Wooded Estates (Beyond approximately 9 km)	Medium high	Low	Moderate minor	No
LCT 25 (ii) Deeside (Within approximately 7 km)	**Medium high**	**High**	**Major moderate**	**Yes**
LCT 25 (ii) Deeside (Between approximately 7 and 9 km to the south-west)	Medium high	Low medium	Moderate	No
LCT 25 (ii) Deeside (Beyond approximately 9 km to the south-west)	Medium high	Low	Moderate minor	No
LCT 11 (i) The Cromar Uplands (Within approximately 5 km)	**Medium**	**High**	**Major moderate**	**Yes**
LCT 11 (i) The Cromar Uplands (Between approximately 5 and 7 km)	**Medium**	**Medium high**	**Moderate**	**Yes**
LCT 11 (i) The Cromar Uplands (Beyond approximately 7 km)	Medium	Medium	Moderate	No
LCT 22 (i) Grampian Outliers located approximately 6.3 km to the north-west;	**Medium high**	**Medium high**	**Major moderate**	**Yes**
LCT 22 (i) Grampian Outliers located approximately 6.4 km to the south;	**Medium high**	**Medium**	**Moderate**	**Yes**
LCT 22 (ii) The Mounth Within approximately 10 km	**Medium high**	**Medium**	**Moderate**	**Yes**
LCT 22 (ii) The Mounth Beyond approximately 10 km	Medium high	Low	Moderate minor	No
LCT 22 (i) Grampian Outliers located approximately 10.7 km to the west.	Medium high	Low	Moderate minor	No

Bold text indicates a significant effect

Assessment of Visual Effects

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

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

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

6.6.83 In accordance with Civil Aviation Authority (CAA) CAP 764[18] turbines taller than 150 m require visible aviation lighting. A reduced visible aviation lighting scheme has been agreed with the CAA. In total seven of the 16 turbines (T01, T04, T06, T07, T10, T12 and T16) will be fitted with visible red 2000/200 cd lights on the nacelle of each turbine. These will operate in the reduced 200 cd intensity where meteorological visibility is greater than 5 km and where visibility is less than 5 km the lights will operate at 2000 cd. The specification of the lights will produce a beam that reduces in intensity above and below the horizontal. It is important to highlight that when not obscured by cloud, the visibility in the area of the turbines can be expected to exceed 5 km for the majority of the time and as such, the lights will be dimmed to 200 cd. Meteorological observations also suggest that the turbine hubs will be obscured on several hundred occasions a month by cloud.

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

6.6.85 Should the relevant regulatory actions concerning the mandatory carriage of a compatible Electronic Conspicuity system on aircraft be completed and signed into law the project could consider the installation an Electronic Conspicuity (i.e. transponder) based Aircraft Detection Lighting System. The installation of such a suitable Aircraft Detection Lighting System would significantly reduce the occasions when the lighting would be visible.

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

- Lighting is only shown on the seven turbines agreed with the CAA;
- No intermediate lighting is illustrated halfway between the nacelle and the ground-level in line with the agreement from the CAA;
- As the photography was taken in clear weather conditions when visibility was greater than 5 km the visualisations illustrate the reduced 200 cd intensity to reflect the lighting that would arise in those conditions as a result of the mitigation proposed. Nonetheless, these images represent the worst-case as should visibility be less than 5 km such that the 2000 cd lighting was active, then these poor conditions would of themselves be such as to restrict the visibility of the lighting to no more than that of the 200 candela lighting seen in clear conditions[19];
- The reduction in the intensity of lights above and below the horizon has been illustrated on **Figure 6.8**– Turbine Lighting Intensity to 20 km with Viewpoints. This ZTV shows the theoretical reduction in the candela intensity of the lights at vertical angles above and below the horizon to illustrate the reduction in the intensity of the lights at elevations below the level of the turbine lights;
- Whilst the lighting would reduce in intensity above and below the horizontal this reduction has not been illustrated in the night-time visualisations. As such the visualisations are a worst-case. This matter has however been considered within the assessment judgements;
- The visualisations illustrate the period after the commencement of Evening Civil Twilight, when sufficient ambient light remains for the landform of the landscape on which the wind farm is proposed, to remain partially visible.
- Whilst the implementation of a suitable Aircraft Detection Lighting System would significantly reduce the occasions when the lighting would be visible, this has not been factored into the judgements of lighting effects which focus on the 'worst-case' scenario of the period when the lighting would be visible. The benefits of a reduction in the lighting associated with the Aircraft Detection Lighting System are nonetheless a matter for the wider planning balance exercise, addressed separately in the application submission;
- It is noted that the matter of darkness adaption is also a relevant consideration, with some receptors, in particular car drivers, not perceiving the lighting in the same manner as if they were in a fully dark environment, due to their vision being influenced by lighting sources in their proximity (i.e. car headlights). The same would apply to residents of residential properties who were viewing the aviation lighting from a location with existing lighting present (i.e. it is unlikely that residents would themselves be fully in a dark environment and their eyes therefore adapted to take in the full extent of the light from the turbines). This serves to further reduce the effects compared to how they are set out in the assessment, which again can be considered to represent a 'worst-case' position compared to what would be experienced by receptors in practice; and
- The frequency in which a viewpoint is likely to be visited during the hours of darkness is not a factor which is considered within the assessment of magnitude or sensitivity. However, it should be noted that viewpoints at hills summits and on long distance footpaths would be unlikely to be visited after daylight hours. Any assessment of these receptors should therefore be considered a 'worst-case' scenario as in many cases the actual numbers of individuals who would be likely to experience the view would be very limited, although it is recognised that there will be a few individuals such as landscape photographers who may visit hilltops to take photographs at sunset or sunrise.

6.6.87 Further details about the approach and the methodology to the assessment of visible aviation lighting are set out in **Technical Appendix 6.7**.

Construction Effects

6.6.88 Construction activities associated with the proposed wind farm will be screened from parts of the study area, while activities will be visible from more elevated locations that allows views across the uplands where the Proposed Development is located.

6.6.89 From lower-lying locations in the Don valley, such as from viewpoints 1, 2, 12 and 21 and from locations in the Dee valley, such as from viewpoints 4, 8, 17, 19 and 22, ground-level activities would be mostly screened by landform and by plantation woodland. In these locations the additional visual effects, over and above those addressed under the heading of Operational Effects, will arise in relation to views of the cranes erecting the turbines.

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

6.6.91 From elevated locations within relative proximity of the Proposed Development, such as from Viewpoint 10, views extend across the site allowing views of construction activities and vehicular movements, in addition to the views of the cranes used to install the turbines. In these locations, there would be a medium to high magnitude of additional change which would result in major moderate significant temporary effects during the construction phase.

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

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

Operational Effects

6.6.94 A detailed viewpoint assessment of the operational effects is presented at **Technical Appendix 6.5** and this considers the long-term visual effects during the operational phase of the Proposed Development for each of the 22 viewpoints.

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

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

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

6.6.98 A summary of the sensitivity of the view, magnitude of change in the view, the level of effect and its significance is given in **Table 6.6** below. Where a viewpoint is representative of more than one type of visual receptor, the assessment carried forward into the table represents the most sensitive receptor group represented by the viewpoint.

6.6.99 With reference to the Viewpoint Assessment at **Technical Appendix 6.5**, when considered against the existing baseline it has been assessed that there would be a significant visual effects at 16 of the 22 representative viewpoints during daylight hours. These are as follows:

- Viewpoint 1 - B9119, junction with minor road to Midmar;
- Viewpoint 2 - B9119, Echt;
- Viewpoint 4 - A980, near Brockton;
- Viewpoint 5 - Torphins, Woodside Road;
- Viewpoint 6 - B993, near Hillend;
- Viewpoint 7 - Minor Road near Pitcullen;
- Viewpoint 8 - Minor Road near The Nuek;
- Viewpoint 10 - Meikle Tap;
- Viewpoint 11 - Barmekin Hill;
- Viewpoint 12 - Sauchen, Main Street;
- Viewpoint 13 – Benaquhallie;
- Viewpoint 14 - Tom's Cairn;
- Viewpoint 17 - Easter Beltie river restoration site;
- Viewpoint 18 - Layby south of Pitmurchie House;
- Viewpoint 19 - Area of the Cowshed on A980; and
- Viewpoint 22 - Glassel Hall.

6.6.100 It was further assessed that during the hours of darkness there would be a significant visual effect at 11 of the 22 representative viewpoints. These are as follows:

- Viewpoint 2 - B9119, Echt;
- Viewpoint 5 - Torphins, Woodside Road;
- Viewpoint 6 - B993, near Hillend;
- Viewpoint 10 - Meikle Tap;
- Viewpoint 11 - Barmekin Hill;
- Viewpoint 12 - Sauchen, Main Street;
- Viewpoint 13 – Benaquhallie;
- Viewpoint 14 - Tom's Cairn;
- Viewpoint 17 - Easter Beltie river restoration site ;

- Viewpoint 18 - Layby south of Pitmurchie House; and
- Viewpoint 19 - Area of the Cowshed on A980.

Table 6.6 – Summary of Operational Effects on Viewpoints

		Daylight Hours			Hours of Darkness		
Viewpoint	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Viewpoint 1 - B9119, junction with minor road to Midmar (N)	Medium	Medium high	Moderate	**Yes**	Low	Moderate minor	No
Viewpoint 2 - B9119, Echt (N)	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Viewpoint 3 - B9125, layby west of Westerton	Medium	Low medium	Moderate	No	Low	Moderate minor	No
Viewpoint 4 - A980, near Brockton (N)	Low medium	High	Moderate	**Yes**	Low medium	Moderate minor	No
Viewpoint 5 - Torphins, Woodside Road	High	High	Major	**Yes**	Low medium	Moderate	**Yes**
Viewpoint 6 - B993, near Hillend	Medium	High	Major moderate	**Yes**	Medium	Moderate	**Yes**
Viewpoint 7 - Minor Road near Pitcullen	Medium	High	Major moderate	**Yes**	Low medium	Moderate minor	No
Viewpoint 8 - Minor Road near The Nuek	Medium	High	Major moderate	**Yes**	Medium	Moderate	No
Viewpoint 9 - Minor Road north of Drumoak	Medium	Medium	Moderate	No	Low medium	Moderate minor	No
Viewpoint 10 - Meikle Tap	High	High	Major	**Yes**	Medium	Major moderate	**Yes**
Viewpoint 11 - Barmekin Hill	High	Medium high	Major moderate	**Yes**	Medium	Major moderate	**Yes**
Viewpoint 12 - Sauchen, Main Street	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Viewpoint 13 - Benaquhallie	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Viewpoint 14 - Tom's Cairn	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Viewpoint 15 - Brimmond Hill	High	Low medium	Moderate	No	Low	Moderate minor	No
Viewpoint 16 - Torphins Public Park *	High	Medium	Moderate	No	Low	Moderate minor	No
Viewpoint 17 - Easter Beltie river restoration site *	High	High	Major	**Yes**	Low medium	Moderate	**Yes**
Viewpoint 18 - Layby south of Pitmurchie House	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Viewpoint 19 - Area of the Cowshed on A980 * (N)	High	High	Major	**Yes**	Low medium	Moderate	**Yes**
Viewpoint 20 - Westhill *	High	Low	Moderate minor	No	Low to very low	Minor	No
Viewpoint 21 - Lyne of Skene Playpark *	High	Medium	Moderate	No	Low	Moderate minor	No
Viewpoint 22 - Glassel Hall *	Medium	Medium high	Moderate	**Yes**	Low	Moderate minor	No

Bold text indicates a significant effect
* Additional LVIA Viewpoint added following feedback received at scoping.
(N) – Night-time visualisation produced from this viewpoint in addition to day-time visualisation.

Assessment of Effects on Visual Receptor Groups

6.6.101 This section considers the effects of the Proposed Development on the visual receptor groups brought forward into detailed assessment. All visual receptors identified within 35 km and 20 km are illustrated on **Figure 6.17** and **6.18**.

Construction Effects on Visual Receptor Groups

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

6.6.103 The vast majority of effects, of note, when considering the construction phase will be experienced within the local environs of the site, with views contained by topography.

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

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

Operational Effects on Visual Receptor Groups

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

Residential Receptors

6.6.107 All properties located within 2 km of a proposed turbine have been assessed in detail within the Residential Visual Amenity Study at **Technical Appendix 6.6** and illustrated at **Figure 1** of **Technical Appendix 6.6**.

6.6.108 In summary, of the 28 properties assessed in detail, twelve would experience a significant visual effect from either a part of their house, garden or principal access route.

6.6.109 It is concluded that when the experience from each property is considered in the round, none of the residents of any occupied private property would experience such an overbearing or overwhelming effect on their visual amenity that their properties would become unattractive places in which to live.

Effects on Settlements within 5 km

Torphins

6.6.110 Torphins is situated approximately 3.4 km to the west of the Proposed Development and sits at the junction between the A980 and the B993. It is a nucleated settlement with a mix of traditional cottages and more modern properties set out along residential streets and cul de sacs. Properties are generally orientated north-east to south-west although some properties at the eastern edge of the settlement along Woodside Road are orientated west to east facing the Proposed Development. Tree cover around the eastern fringes of the settlement limits views from the majority of the settlement, although more open views are available along Woodside Road.

6.6.111 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to 12 turbines is predicted from the settlement. Referring to the wireline at **Figure 6.39** Viewpoint 5 and **Figure 6.50** Viewpoint 16, the Proposed Development would be seen by its narrowest lateral extent with turbines 4, 5 and 6 located at western end of the array and closest to the settlement appearing more prominent. Views of the remaining turbines would be mostly limited to blade tips, with the hubs of turbines 3, 7 and 8 appearing just above the landform.

6.6.112 During daylight hours, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of the view. The turbines would appear above the landform but are contained by the high ground. While some receptors would experience oblique or no views, where intervening properties or vegetation screens views, receptors towards the eastern edge of the settlement would experience direct views towards the Proposed Development. Due to the elevation of the settlement relative to the Proposed Development, ground-level components would be screened from view by topography.

6.6.113 Overall, the Proposed Development would introduce a high magnitude of change. Combined with the high sensitivity of the residential receptors, this would result in a **major and significant effect**.

6.6.114 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, parts of the settlement to the north of the A980 would experience theoretical visibility of up to three of the seven proposed lit turbines, while those parts of the settlement to the south of the road would experience theoretical visibility of up to five of the seven lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where no other lights are currently present. However, light sources are present within the settlement comprising streetlights, lighting at properties and the lights of vehicles travelling through the settlement. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, where views are not screened by intervening vegetation and surrounding buildings, due to the difference in elevation between the aviation lights and the settlement their intensity would be perceived to be much lower than the stated 2000/200 cd.

6.6.115 This would result in a low medium magnitude of change and a **moderate** effect during the hours of darkness that would be significant.

Midmar

6.6.116 Midmar is located 3.6 km to the north of the Proposed Development along a minor road leading north from the B9119. The settlement comprises an extended cluster of properties situated to the north of the minor road, some of which have direct, open views across the agricultural landscape to the south south-east of the road that extend towards the Hill of Fare that provides the backdrop to the view.

6.6.117 Referring to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the settlement. The Proposed Development would be experienced in views south, with the full lateral extent of the wind farm seen. Some of the proposed turbines would been seen above the landform, while views of some of the turbines towards the southern side of the array would be limited to blade tips only. Ground-level components would be screened from view by existing forestry plantation at Midmar Forest.

6.6.118 During daylight hours, the Proposed Development would introduce a large size and scale of change with the proposed turbines occupying a large proportion of the view. The orientation of the settlement means that receptors would experience oblique views towards the Proposed Development. Overall, the Proposed Development would introduce a high magnitude of change. Combined with the high sensitivity of the residential receptors, this would result in a major and significant effect.

6.6.119 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven of the proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where no other lights are currently present. However, light sources are present within the settlement comprising streetlights, lighting at properties and the lights of vehicles travelling through the settlement. There would also be occasional lights visible in the intervening landscape around the intermittent properties and farms. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation light and the settlement their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.120 This would result in a medium high magnitude of change and a **major moderate** effect during the hours of darkness that would be significant.

Echt

6.6.121 The settlement is located approximately 4 km to the north-east of the Proposed Development at the junction between the B9119 and the B977. It is a nucleated settlement with a mix of traditional cottages and modern properties set out along residential streets and cul de sacs. Properties are generally orientated north to south or west to east. Tree cover around the settlement is limited and open views extend across the agricultural landscape to the south, with the wooded slopes of Hill of Fare providing the backdrop to south-westerly views.

6.6.122 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the settlement. Referring to the wireline at **Figure 6.36** Viewpoint 5, the Proposed Development would be seen by its narrowest lateral extent with turbines at the eastern end of the array partly screened by landform, limiting views to blade tips, hubs and in some cases the upper parts of turbines towers. A greater vertical extent of turbines 1 to 4 located towards the western end of the group would be seen, although due to their greater distance from the settlement they would appear smaller in scale.

6.6.123 During daylight hours, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of the view. While some receptors would experience oblique or no views, where intervening properties screen views, receptors towards the western edge of the settlement would experience direct views towards the Proposed Development. Due to the elevation of the settlement relative to the Proposed Development, ground-

level components would be screened from view by the existing forestry plantation at Midmar Forest. Overall, the Proposed Development would introduce a medium magnitude of change. Combined with the high sensitivity of the residential receptors, this would result in a **major moderate and significant effect**.

6.6.124 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to five of the seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where no other lights are currently present. However, light sources are present within the settlement comprising streetlights, lighting at properties and the lights of vehicles travelling through the settlement. There would also be occasional lights visible in the intervening landscape around the intermittent properties and farms. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the settlement, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.125 This would result in a low medium magnitude of change and a **moderate** effect during the hours of darkness that would be significant.

Inchmarlo

6.6.126 Inchmarlo is located approximately 4.7 km to the south of the Proposed Development, to the north of the A93 and the River Dee. There is extensive tree cover both within the settlement and around its edges, limiting views north, although more open views are available from the northern edge of the settlement.

6.6.127 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the northern edge of the settlement and no visibility is predicted from the southern half of the settlement. Referring to the hub height ZTV at **Figure 6.6** there would be theoretical visibility of up to 12 hubs from the northern part of the settlement.

6.6.128 During daylight hours, from the northern part of the settlement, the Proposed Development would introduce a large size and scale of change with the proposed turbines occupying a moderate proportion of the view. This would introduce a medium to high magnitude of change. Combined with the high sensitivity of the residential receptors, this would result in a major moderate and significant effect.

6.6.129 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of between four and seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the settlement, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.130 This would result in a low medium magnitude of change and a **moderate** effect during the hours of darkness that would be significant.

Banchory

6.6.131 The settlement of Banchory is located approximately 6 km to the south of the Proposed Development on the northern bank of the River Dee. The settlement is larger settlement with a variety of house types and orientations, with extensive tree cover with the town and large areas of forestry plantation to its immediate north. Views from the settlement are represented by Viewpoint 19 at **Figure 6.53**, where views north towards Hill of Fare are available.

6.6.132 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the majority of the settlement. Referring to the wireline at **Figure 6.53**, the full lateral extent of the wind farm would be seen with the turbines seen above the landform that provides the backdrop to northerly views. Turbines at the southern edge of the array would appear more prominent due to their closer proximity while those turbines situated at the northern edge of the wind farm, further from the settlement would be more recessive and limited to mainly blade tips.

6.6.133 During daylight hours, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a large proportion of northerly views. Due to the elevation of the settlement relative to the Proposed Development, ground-level components would be screened from view by the existing forestry plantation. Overall, the Proposed Development would introduce a high magnitude of change. Combined with the high sensitivity of the residential receptors, this would result in a **major and significant effect**. However, these effects would only be experienced where views are available, predominantly in the northern part of the settlement and views from the majority of the settlement would be restricted by surrounding buildings and intervening tree cover.

6.6.134 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. However, light sources are present within the settlement comprising streetlights, lighting at

properties and the lights of vehicles travelling through the settlement. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the settlement, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.135 This would result in a low medium magnitude of change and a **moderate** effect during the hours of darkness that is also considered to be **significant**.

Effects on Settlements within 5 to 10 km

Sauchen & Cluny

6.6.136 Sauchen & Cluny is located approximately 6.7 km to the north of the Proposed Development to the north of the A944. The settlement is a small, nucleated settlement comprising a mix of house types, with a large amount of existing tree cover in parts of the settlement and along is western edges and parts of Main Street along its southern periphery. Where views are available, they extend across open, agricultural to the south, with the prominent form of Hill of Fare on the horizon of southerly views.

6.6.137 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the majority of the settlement. Referring to the wireline at **Figure 6.46**, the full lateral extent of the wind farm would be seen with the distant landform of Hill of Fare providing a degree of topographical screening of some turbines.

6.6.138 During daylight hours, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of southerly views. Due to the elevation of the settlement relative to the Proposed Development, ground-level components would be screened from view by the existing forestry plantation. Overall, the Proposed Development would introduce a medium magnitude of change. Combined with the high sensitivity of the residential receptors, this would result in a **major moderate and significant effect**. However, these effects would only be experienced where views are available from the southern edge of the settlement along Main Street.

6.6.139 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to seven proposed lit turbines. The lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. However, light sources are present within the settlement comprising streetlights along Main Street, lighting at properties and the lights of vehicles travelling through the settlement. There would also be occasional lights visible in the intervening landscape around the intermittent properties and farms. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the settlement, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.140 This would result in a low medium magnitude of change and a **moderate** effect during the hours of darkness that would be **significant**.

Table 6.7 – Assessment of Effects on Settlements

		Daylight Hours			Hours of Darkness		
Settlement	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Settlements within 5 km							
Torphins	High	High	Major	**Yes**	Medium	Major moderate	**Yes**
Midmar	High	High	Major	**Yes**	Medium high	Major moderate	**Yes**
Echt	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Inchmarlo	High	Medium high	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Banchory	High	High	Major	**Yes**	Low medium	Moderate	**Yes**
Settlements within 5 to 10 km							
Sauchen & Cluny	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**

Bold text indicates a significant effect

Core Paths

6.6.141 The following assessment focuses on those core paths and routes identified in the filtering exercise at **Technical Appendix 6.4** as having the potential to experience significant effects.

6.6.142 In accordance with the methodology set out in **Technical Appendix 6.1** the sensitivity of users of public rights of way can vary between medium and very high

depending on the reason for which they are using the route. A summary of the effects is presented at **Table 6.8** below.

Core Path 616.01 – Torphins Wood Circular

6.6.143 The core path is located approximately 4.2 km to the west of the Proposed Development. The western half of the route passes through woodland while the eastern half follows a minor road to the north of Torphins. Views from this part of the route are broadly represented by Viewpoint 5, **Figure 6.39**.

6.6.144 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to 12 turbines is predicted from the path. Referring to the wireline at **Figure 6.39** Viewpoint 5, the Proposed Development would be seen by its narrowest lateral extent with turbines 4, 5 and 6 located at western end of the array and closest to the route appearing more prominent. Views of the remaining turbines would be mostly limited to blade tips, with the hubs of turbines 3, 7 and 8 appearing just above the landform.

6.6.145 During daylight hours, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of the view. The turbines would appear above the landform but are contained by the high ground. Due to the elevation of the path relative to the Proposed Development, ground-level components would be screened from view by topography. To the north of the B993, receptors walking along the eastern part of the route would experience views at an oblique angle to the path which would be partially screened by mature trees along the eastern side of the route. To the south of the B993, views are screened by landform to the immediate east of the path before walkers would experience open views over an approximately 180 m section of the path before it continues west into the settlement.

6.6.146 Overall, during daylight hours, walkers would experience a medium magnitude of change. Combined with their high sensitivity this would result in a **major moderate and significant effect**.

6.6.147 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, walkers would experience theoretical visibility of up to three of the seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, where views are not screened by intervening vegetation, due to the difference in elevation between the aviation light and the path their intensity would be perceived to be much lower than the stated 2000/200 cd.

6.6.148 This would result in a low medium magnitude of change and a **moderate** effect during the hours of darkness that is also considered to be significant.

Core Path 616.02 -Torphins: Cemetery Walk

6.6.149 The core path is located approximately 4.6 km to the west of the Proposed Development. The western and eastern sections of the route pass through part of Torphins, while southern leg follows a minor road where more open, oblique views are available east towards the Proposed Development.

6.6.150 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to 12 turbines is predicted from the path.

6.6.151 During daylight hours, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of the view. The turbines would appear above the landform but are contained by the high ground. Due to the elevation of the route relative to the Proposed Development, ground-level components would be screened from view by topography. Walkers would experience a high magnitude of change. Combined with their high sensitivity this would result in a **major and significant effect**. However, these effects would be mainly experienced over a distance of approximately 630 m on the southern section of the route. From the western and eastern section of the route, views would partially screened by adjacent buildings and vegetation.

6.6.152 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, walkers would experience theoretical visibility of up to five of the seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, where views are not screened by intervening vegetation, due to the difference in elevation between the aviation light and the path their intensity would be perceived to be much lower than the stated 2000/200 cd.

6.6.153 This would result in a low medium magnitude of change and a **moderate** effect during the hours of darkness that would be significant.

Core Paths 405.02 - Myriewell Circular & 405.01 - Echt to North Kirkton Woods

6.6.154 Theses core paths are located approximately 4.1 km to the north-east of the Proposed Development at Echt. Core Path 405.02 crosses, flat, open countryside where views extend south-westwards across Echt towards Hill of Fare that provides the backdrop to the view. Core Path 405.01 follows the B9119.

6.6.155 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the path.

6.6.156 During daylight hours, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of the view. Receptors would experience oblique views from the eastern section of Core Path 405.02 - Myriewell Circular and direct views from the western section of the path. Walkers would experience oblique views from Core Path 405.01 - Echt to North Kirkton Woods that follows the B9119. From both core paths ground-level components would be screened from view by the existing forestry plantation at Midmar Forest.

6.6.157 Overall, the Proposed Development would introduce a medium magnitude of change. Combined with the high sensitivity of the receptors, this would result in a **major moderate and significant effect**.

6.1.1 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to five of the seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. However, light sources are present around Echt including the lights of vehicles travelling along the B9119, which the southern section of the path follows. There would also be occasional lights visible in the intervening landscape around the intermittent properties and farms. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the path, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.158 This would result in a low medium magnitude of change and a **moderate** effect during the hours of darkness that would be significant.

Core Path 604.06 – Upper Lochton to Corsee Road

6.6.159 The eastern section of the path is located approximately 4.8 km to the south of the Proposed Development and passes along a minor road near Upper Lochton leading to the A980 at its eastern end.

6.6.160 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the path. The full lateral extent of the wind farm would be seen with the turbines seen above the landform that provides the backdrop to northerly views. Turbines at the southern edge of the array would appear more prominent due to their closer proximity while those turbines situated at the northern edge of the wind farm, further from the path would be more recessive and limited to mainly blade tips.

6.6.161 During daylight hours, the Proposed Development would introduce a medium size and scale of change with the proposed turbines. However, actual visibility north from the path would be very limited due to the intervening screening of adjacent properties, hedges and trees that restricts visibility from most of the path. Where views north are available they would be experienced as glimpsed views between properties. Ground-level components would be screened from view by the existing forestry plantation. Overall, the Proposed Development would introduce a medium magnitude of change. Combined with the high sensitivity of the receptors, this would result in a moderate effect that would not be significant.

6.6.162 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. However, light sources are present around properties situated on Upper Lochton which the path follows. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the route, their intensity would be perceived at a lower intensity than the stated 2000/200 cd. Furthermore, due to the degree of intervening screening, views of the lit turbines would only be available very intermittently.

6.6.163 This would result in a low magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

Core Path 417.01 - Sauchen Farm to A944

6.6.164 This core path is located approximately 6.2 km to the north of the Proposed Development. The path follows a track from Sauchen and heads west from Sauchen and leads to the A944.

6.6.165 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted over a distance of approximately 415 m at the eastern end of the path near Sauchen and from an approximate 900 m section at the western end of the path. Landform restricts views from the central part of the path. Where views are available the full lateral extent of the wind farm would be seen, with the

background landform of Hill of Fare providing a degree of topographical screening of some turbines.

6.6.166 During daylight hours, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of southerly views. Ground-level components would be screened from view by the existing forestry plantation. Overall, the Proposed Development would introduce a medium magnitude of change. Combined with the high sensitivity of the receptors, this would result in a **major moderate and** significant effect. However, these effects would only be experienced obliquely where views are available from the western and eastern sections of the path.

6.6.167 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to seven proposed lit turbines. The lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. There would be occasional lights visible in the intervening landscape around properties and farms. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and this part of the landscape, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.168 This would result in a low medium magnitude of change and a **moderate** effect during the hours of darkness that would be **significant**.

Core Path 7LD.02.05 – The Deeside Way

6.6.169 The Deeside Way core path is located approximately 6.3 km to the south of the Proposed Development. The path is also promoted as a long distance walking route.

6.6.170 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from a large proportion of the path. From the western end near Westerton there is theoretical visibility over a distance of approximately 1.4 km. There is no further theoretical visibility for approximately 4.5 km as the path follows the river corridor before entering Blackhill Forest. Theoretical visibility continues for approximately 11.5 km until the path enters Banchory. There is no further theoretical visibility for a further approximate 2.5 km as the path passes along the river bank at Banchory. Theoretical visibility continues from the eastern edge of Banchory for approximately a further 5.5 km before a short section of approximately 725 m where no theoretical visibility is predicted, before continuing for approximately 2 km until the continues beyond 10 km from the Proposed Development. Where views are available from the path they would be experienced as oblique views.

6.6.171 During daylight hours, at the western 1.4 km section near Westerton, the Proposed Development would introduce a low medium size and scale of change with the proposed turbines occupying a moderate proportion of southerly views. Ground-level components would be screened from view by the existing forestry plantation. Over this section the Proposed Development would introduce a low medium magnitude of change. Combined with the high sensitivity of the receptors, this would result in a moderate effect that would not be significant.

6.6.172 Although theoretical visibility is predicted over a distance of 11.5 km at Blackhill Forest, the intervening forest plantation would mean that the walkers would not experience views of the Proposed Development from the majority of this section, although very occasional views would be available in more open areas that have been felled. Over this section the Proposed Development would introduce a low medium magnitude of change and result in a moderate effect that would not be significant.

6.6.173 From the eastern edge of Banchory to Crathes, woodland to the immediate north of the route restricts visibility for approximately 3.5 km. As the route continues eastwards there would be the potential for oblique views across the rolling landscape towards the Proposed Development for approximately 4.7 km to Drumoak.

6.6.174 Over this section of the Core Path the Proposed Development would introduce a low medium magnitude of change. Combined with the high sensitivity of the receptors, this would result in a **moderate** effect that would not be significant, apart from the approximate 725 m section near Nether Park where no views would be available.

6.6.175 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to seven proposed lit turbines. Where views would be available from these parts of the path, the lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. There would be occasional lights visible, particularly in the vicinity of Banchory. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and this part of the landscape, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.176 This would result in a low magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

Core Path 604.01 Banchory River Bank Golf Course

6.6.177 The path is located approximately 5.8 km to the south of the Proposed Development, adjacent to the golf course and the riverbank.

6.6.178 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the path. However, the path passes through trees along the northern riverbank and the edge of the golf course that would partially screen views of the Proposed Development.

6.6.179 During daylight hours, where views are available, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of northerly views across the golf course. Ground-level components would be screened from view by the existing forestry plantation. Overall, the Proposed Development would introduce a low medium magnitude of change. Combined with the high sensitivity of the receptors, this would result in a **moderate** effect that would not be significant. However, these effects would only be experienced at very limited sections of the path where views are available.

6.6.180 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to seven proposed lit turbines at a very limited section of the path, while there would be views of up to five lit turbines from the majority of the path. Where views would be available the lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. However, lights would visible, at Banchory. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and this part of the landscape, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.181 This would result in a low magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

Core Path 614.02 – Scolty Hill Path

6.6.182 The path is located approximately 7.1 km to the south of the Proposed Development and is a relatively short circular route leading up onto Scolty Hill, which is a localised high point allowing views north across the Dee Valley towards the high ground to the north where the Proposed Development would be located.

6.6.183 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the majority of the path, except for a short section to the south of the hill where no views would be available. As the path ascends up onto the high ground views would become available from the open hilltop where the full lateral extent of the wind farm would be seen on the landform to the north.

6.6.184 During daylight hours, the Proposed Development would introduce a medium to large size and scale of change with the proposed turbines occupying a moderate proportion of northerly views across the valley. Ground-level components would be screened from view by the landform of Hill of Fare. Overall, the Proposed Development would introduce a medium magnitude of change. Combined with the high sensitivity of the receptors, this would result in a **major moderate** effect that would be significant.

6.6.185 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of all seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present and would be seen above the landform to the north. However, there would be views of other lights in the valley below. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and this part of the landscape, their intensity would be perceived at a slightly lower intensity than the stated 2000/200 cd.

6.6.186 This would result in a medium magnitude of change and a **major moderate** effect during the hours of darkness that would be significant.

Table 6.8 – Assessment of Effects on Core Paths

		Daylight Hours			Hours of Darkness		
Route	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Core Path 616.01 – Torphins Wood Circular	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Core Path 616.02 - Torphins: Cemetery Walk	High	High	Major	**Yes**	Low medium	Moderate	**Yes**
Core Paths 405.02 - Myriewell Circular & Core Path	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**

		Daylight Hours			Hours of Darkness		
Route	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
405.01 - Echt to North Kirkton Woods							
Core Path 604.06 - Upper Lochton to Corsee Road	High	Medium	Moderate	No	Low medium	Moderate minor	No
Core Path 417.01 - Sauchen Farm to A944	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Core Path 7LD.02.05 - The Deeside Way - *approximate 1.4 km section at Westerton*	High	Low medium	Moderate	No	Low	Moderate minor	No
Core Path 7LD.02.05 - The Deeside Way - approximate 11.5 km section at Blackhill Forest	High	Low medium	Moderate	No	Low	Moderate minor	No
Core Path 7LD.02.05 - The Deeside Way - approximate 4.7 km section Crathes to Drumoak	High	Low medium	Moderate	No	Low	Moderate minor	No
Core Path 604.01 Banchory River Bank Golf Course	High	Low medium	Moderate	No	Low	Moderate minor	No
Core Path 614.02 - Scolty Hill Path	High	Medium	Major moderate	**Yes**	Medium	Major moderate	**Yes**

Bold text indicates a significant effect

Cycle Routes

6.6.187 The following assessment focuses on those cycle routes identified in the filtering exercise at **Technical Appendix 6.4** as having the potential to experience significant effects.

6.6.188 In accordance with the methodology set out in **Technical Appendix 6.1** the sensitivity of users of cycle routes is considered to be high. A summary of the effects is presented at **Table 6.9** below.

Aberdeenshire Cycle Route - Midmar – Dunecht

6.6.189 This circular cycle route is located approximately 2.2 km to the north of the Proposed Development at its closest point and passes between Echt in the south-east, Midmar in the south-west, Monymusk in the north and Dunecht in the east.

6.6.190 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the majority of the route, except for a short section from the south-western part of the route near Midmar where no views would be available and for a short section from the north-eastern part of the route near Backhill and Greenburn.

6.6.191 Along the southern leg of the route, between Nethershiels in the south-west and Echt in the eastbound receptors would experience close range views that would vary between oblique to perpendicular depending upon their location along the route with receptors experiencing views of up to all 16 turbines.

6.6.192 During daylight hours, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of the view, introducing a medium magnitude of change. Combined with the high sensitivity of the receptors, this would result in a **major moderate and significant effect**.

6.6.193 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to five of the seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. However, light sources are present at some points along the route comprising streetlights in settlements, lighting at properties and the lights of vehicles travelling along the road. Although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the route, their intensity would be perceived at a lower intensity as illustrated by **Figure 6.8**, resulting in a low medium magnitude of change and a **moderate** effect that would be significant.

6.6.194 From the eastern section of the route, south of Dunecht, the lower elevation of this part of the route together with the intermittent screening of adjacent belts of trees means that for approximately 3.8 km south of Dunecht to Upper Mains, the Proposed Development would introduce no greater than a low medium magnitude of change and a moderate effect that would not be significant during daylight hours.

6.6.195 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven proposed lit turbines. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the route, their intensity would be perceived at a lower intensity, resulting in a low magnitude of change and a **moderate minor** effect that would not be significant.

6.6.196 South of Upper Mains, the route descends towards Echt and open views are available towards Hill of Fare. Over this section, receptors would experience oblique views towards the Proposed Development which would be seen on the landform that forms the backdrop of part of the view. During daylight hours, this would introduce a medium magnitude of change which combined with the high sensitivity of the receptors would result in a **major moderate and significant effect**.

6.6.197 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to five of the seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. However, light sources are present within Echt comprising streetlights, lighting at properties and the lights of vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the settlement, their intensity resulting in a low medium magnitude of change and a **moderate** effect during the hours of darkness that is significant.

6.6.198 Effects from the eastern section of the cycle route would only be experienced by receptors travelling southwards. Receptors travelling northwards would experience no effects as the Proposed Development would be to their rear.

6.6.199 From the northern section of the route, north-west of Dunecht, the intermittent screening of adjacent blocks of trees together with the distance from the Proposed Development and the oblique angle of views means that for approximately 3.7 km between Dunecht and Greenburn the Proposed Development would introduce a low

medium magnitude of change and a moderate effect that would not be significant during daylight hours.

6.6.200 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven proposed lit turbines. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the route, their intensity would be perceived at a lower intensity than the stated 2000/200 cd. This would result in a low magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant. Between Backhill and Greenburn there is no theoretical visibility for approximately 1.8 km.

6.6.201 From the western part of the route between Backhill in the north and the junction with the road to Monymusk there is theoretical visibility of up to all 16 turbines, with the full, northern lateral extent of the wind farm seen on the landform that forms the background to views. Views would be experienced at an oblique angle at a distance of between approximately 8.2 km to 9.3 km. During daylight hours, this would introduce a medium magnitude of change which combined with the high sensitivity of the receptors would result in a **major moderate and significant effect**.

6.6.202 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present, except for lighting at properties and the lights of vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the settlement, their intensity resulting in a low medium magnitude of change and a **moderate** effect during the hours of darkness that is significant.

6.6.203 To the west of junction to Monymusk, intervening trees would screen views over a distance of approximately 2.4 km to west of Strathwood, where views become available. From this point, the operational Upper Sauchen wind turbine is a prominent foreground component of existing views that reduces the influence of the Proposed Development which is also intermittently screened by adjacent woodland blocks over a distance of approximately 1.3 km until the junction with the A944 near Ordhead. Over this this section, during daylight hours, this would introduce a low medium magnitude of change which combined with the high sensitivity of the receptors would result in a **moderate** effect that would not be significant.

6.6.204 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present, except for lighting at properties and the lights of vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the settlement, their intensity resulting in a low magnitude of change and a **moderate minor** effect that is not significant.

6.6.205 From Ordhead to Nethershields, the closer proximity to the Proposed Development means that the turbines would occupy a greater proportion of view and be a more prominent feature on the landform that forms the background to southerly views, resulting in a medium magnitude of change and a **major moderate** significant effect during daylight hours and a low medium magnitude of change and a **moderate** significant effect during the hours of darkness.

6.6.206 Effects from the western section of the cycle route would only be experienced by receptors travelling southwards. Receptors travelling northwards would experience no effects as the Proposed Development would be to their rear.

Aberdeenshire Cycle Route - Westhill - The Drum Castle Round

6.6.207 This cycle route is located approximately 6.2 km to the east of the Proposed Development at its closest point. Within 10 km of the Proposed Development it passes between Garloich in the north, Garlogie and passes in a loop between Schoolhill, Hardgate and Drumcastle.

6.6.208 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the majority of the route, except at Drum Castle where there is no predicted visibility and near Schoolhill where there is predicted visibility of a reduced number of turbines.

6.6.209 From Garloich in the north, receptors would experience longer-range, oblique views towards the Proposed Development for a distance of approximately 300 m to just south of the junction with the A944. Over this part of the route, users would experience a low magnitude of change and a **moderate minor** effect during daylight hours that would not be significant.

6.6.210 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven proposed lit turbines. The lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present, except for

lighting at properties and the lights of vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the route, their intensity would be perceived much lower resulting in a low to very low magnitude of change and a minor effect that would not be significant.

6.6.211 Theoretical visibility is restricted for a 1.2 km section at Loch of Skene due to intervening woodland around the eastern shoreline of the loch adjacent to the road.

6.6.212 Views become available as the route climb towards Netherton Garlogie and continue to Garlogie over a distance of approximately 1.7 km. The Proposed Development would be seen in oblique views at a distance of approximately 9 km. During daylight hours, receptors would experience a low medium magnitude of change and a **moderate effect** that would not be significant and a low magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

6.6.213 South of Garlogie, views would be experienced at an increasingly oblique to perpendicular angle to the route and would be intermittently screened by woodland blocks to the west of the road and by the landform of Meikle Tap at the eastern edge of the Site. As such, for the remainder of the southern section of the cycle route, receptors would experience no greater a low medium magnitude of change and a **moderate effect** that would not be significant and a low magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

National Cycle Network Route 195

6.6.214 The cycle route is located approximately 6.5 km to the south at its closest point and follows a route through the Dee Valley via Blackhall Forest. Views from the route would be experienced in a northerly direction and would range from oblique to perpendicular depending upon the point on the route.

6.6.215 The cycle route follows the same course as the Core Path 7LD.02.05 – The Deeside Way. As such, receptors would be experience the same effects as reported for the core path above.

Table 6.9 – Assessment of Effects on Cycle Routes

		Daylight Hours			Hours of Darkness		
Route	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
Aberdeenshire Cycle Route - Midmar – Dunecht							
Southern section – Nethershiels to Echt	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Eastern section – Dunecht to Upper Mains	High	Low medium	Moderate	No	Low	Moderate minor	No
Eastern section – Upper Mains to Echt	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Northern section – Dunect to Greenburn	High	Low medium	Moderate	No	Low	Moderate minor	No
Western section – Backhill to Monymusk junction	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Western section – Monymusk junction to Ordhead	High	Low medium	Moderate	No	Low	Moderate minor	No
Western section – Ordhead to Nethershiels	High	Medium	Major moderate	**Yes**	Low medium	Moderate	**Yes**
Aberdeenshire Cycle Route - Westhill - The Drum Castle Round							
Garloich 300m section	High	Low	Moderate minor	No	Low to very low	Minor	No
Netherton Garlogie to Garlogie	High	Low medium	Moderate	No	Low	Moderate minor	No
South of Garlogie	High	Low medium	Moderate	No	Low	Moderate minor	No
NCN 195							
1.4 km section at Westerton	High	Low medium	Moderate	No	Low	Moderate minor	No
Approximate 11.5 km section at Blackhill Forest	High	Low medium	Moderate	No	Low	Moderate minor	No
Approximate 4.7 km section Crathes to Drumoak	High	Low medium	Moderate	No	Low	Moderate minor	No

Bold text indicates a significant effect

Roads

A944

6.6.216 The A944 passes through the northern part of the Study Area and is located approximately 5.9 km to the north of the Proposed Development at its closest point.

6.6.217 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from the majority of the route within 10 km, except for a short section west of Dunecht where no views would be available.

6.6.218 The road does not cross through any landscapes designated for their particular scenic value, although it is acknowledged that there are extensive views available across the rolling agricultural landscape towards the prominent landform of Hill of Fare. Users of main A roads are typically considered to have lower susceptibility to changes in visual amenity. Therefore, in this instance it is considered road users are considered to have low medium sensitivity to changes in their visual amenity.

A944 – eastbound

6.6.219 Theoretical visibility commences in the north-west near to the junction between the B993 and the A944 north-west of the Millbank and continues for approximately 9.1 km to west of Dunecht where no views are available for approximately 2 km west of Dunecht.

6.6.220 However, at the start of this section forestry restricts views, with actual visibility commencing towards Millbank and continuing for approximately 9 km. As the road continues eastwards towards Dunecht views would be experienced at an oblique to perpendicular angle from the road, with some intermittent screening provided by intervening woodland. Where views are available, they extend across open, agricultural land to the south, with the prominent form of Hill of Fare on the horizon of southerly views.

6.6.221 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, theoretical visibility of up to all 16 turbines is predicted from this section of road. Referring to the wireline at **Figure 6.46**, the full lateral extent of the wind farm would be seen with the distant landform of Hill of Fare providing a degree of topographical screening of some turbines.

6.6.222 During daylight hours, over this section of the road, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of southerly views. Due to the elevation of the route relative to the Proposed Development, ground-level components would be screened from view by the existing forestry plantation. Overall, the Proposed Development would introduce a medium magnitude of change. Combined with the sensitivity of the receptors, this would result in a moderate effect that would not be significant.

6.6.223 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to seven proposed lit turbines. The lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present, except for lighting at properties and the lights of vehicles travelling along the road. There would also be occasional lights visible in the intervening landscape around the intermittent properties and farms. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the road, their intensity would be perceived at a lower level than the stated 2000/200 cd.

6.6.224 This would result in a low medium magnitude of change and a moderate minor effect during the hours of darkness that would not be significant.

6.6.225 As eastbound road users reach Dunecht the Proposed Development would be located to their rear and they would experience no further effects as they continue eastwards.

A944 – westbound

6.6.226 Within 10 km of the Proposed Development, westbound road users would experience oblique views between Gairloch and Dunecht over a distance of approximately 4.8 km, although views would be intermittently screened north of Loch of Skerne. Over this part of the route, road users would experience a low magnitude of change and a **moderate minor** effect during daylight hours that would not be considered significant.

6.6.227 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven proposed lit turbines. The lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present, except for lighting at properties and the lights of vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the route, their intensity would be perceived much lower, resulting in a low to very low magnitude of change and a **minor** effect that would not be significant.

6.6.228 To the west of Dunecht to Upper Sauchen over a distance of approximately 5.4 km, views would be experienced at an oblique to perpendicular angle from the road, with some intermittent screening provided by intervening woodland. Where views are available, they extend across open, agricultural land to the south, with the prominent form of Hill of Fare providing the backdrop to southerly views.

6.6.229 Over this section of the road, the Proposed Development would introduce a medium size and scale of change with the proposed turbines occupying a moderate proportion of southerly views. The Proposed Development would introduce no greater than a medium magnitude of change which, combined with the sensitivity of the receptors, would result in a **moderate** effect that would not be significant during daylight hours and a **moderate minor** effect during the hours of darkness that would not be significant.

6.6.230 From Upper Sauchen the Proposed Development would be located to the rear of road users and they would experience no further effects as they continue in a north-westerly direction.

A980

6.6.231 The A980 is located approximately 2.1 km to the south of the Proposed Development at its closest point, passing through the south-western part of the detailed 20 km LVIA study area. Within 10 km of the Proposed Development the road passes between Lumphanan, Torphins and Banchory to the south.

6.6.232 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, there is intermittent theoretical visibility between Lumphanan and Torphins and theoretical visibility of a limited number of turbines between Torphins and Banchory, with predicted visibility of up to all 16 turbines to the immediate north of Banchory.

6.6.233 South of Torphins, the road passes along the northern edge of the Dee Valley SLA and crosses through part of the SLA to the north of Banchory. Users of main A roads are typically considered to have lower susceptibility to changes in visual amenity. Therefore, in this instance it is considered road users are considered to have low medium sensitivity to changes in their visual amenity.

A980 – eastbound

6.6.234 From north-west of Lumphanan there are direct views towards the Proposed Development that road users travelling eastwards would experience over a distance of approximately 1 km until the road descends into Lumphanan. At over 9 km from the Proposed Development, road users would experience a low magnitude of change and a **moderate minor** effect during daylight hours that would not be significant.

6.6.235 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to five of the seven proposed lit turbines. The lights would appear as very small, red dots, introduced in a part of the view where there are no other lights are currently present, except for the lights of vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the route, their intensity would be perceived much lower, resulting in a low to very low magnitude of change and a **minor** effect that would not be significant.

6.6.236 As the road descends towards Lumphanan, views would be increasingly screened through a combination of topography, intervening vegetation and the built form of the settlement, such that there would be a very low magnitude of change and **minor to no effects** for a distance of approximately 2.4 km during daylight hours and no effects during dark sky hours.

6.6.237 As the road continues south-eastwards towards Torphins over a distance of approximately 3.7 km, there would be intermittent visibility of up to twelve turbines. Where views are available they would be experienced obliquely. This would result in a medium magnitude of change and a moderate effect during daylight hours that would not be significant. During the hours of darkness the proposed aviation lights would introduce a low magnitude of change and result in a moderate minor effect that would not be significant.

6.6.238 As the road enters Torphins views would be restricted by intervening built form and tree cover within the settlement and along the road. Where views become available from the south-eastern edge of the settlement the Proposed Development would introduce a medium high magnitude of change resulting in a moderate and significant effect during daylight hours and a moderate effect during the hours of darkness that would not be significant.

6.6.239 These effects would continue for approximately 7 km as the road continues south-eastwards towards Banchory. Road users would experience no further effects from the point where the road turns south and enters Banchory as the Proposed Development would be to the rear of the direction of travel.

A980 -westbound

6.6.240 Road users travelling westbound from Banchory would experience the same effects as those travelling eastbound, except that between Banchory and Torphins effects would commence at Banchory and continue for approximately 7 km to Milton of Campfield. Road users would experience no further effects from this point as the Proposed Development would be to the rear of their direction of travel.

A93

6.6.241 The A93 passes through the southern part of the LVIA study area and is located approximately 5.2 km to the south of the Proposed Development at its closest point. Within 10 km of the Proposed Development the road passes between Kincardine O'Neil, Inchmarlo, Banchory and continues eastwards to Drumoak.

6.6.242 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, there is a very short section of theoretical visibility at Kincardine O'Neil in the west. Theoretical then recommences at Slewdrum Forest where up to all 16 turbines would be visible in theory, continuing eastwards to Drumoak.

6.6.243 The road passes through the Dee Valley SLA. Users of main A roads are typically considered to have lower susceptibility to changes in visual amenity. Therefore, in this instance it is considered road users are considered to have low medium sensitivity to changes in their visual amenity.

A93 – eastbound

6.6.244 To the west of Kincardine O'Neil, theoretical visibility of up to all 16 turbines is predicted over approximately 1 km. At over 9 km to the west of the Proposed Development, during daylight hours, the Proposed Development would introduce a low medium magnitude of change. Combined with the sensitivity of the receptors, this would result in a **moderate minor** effect that would not be significant.

6.6.245 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to seven proposed lit turbines. Where views would be available, the lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. There would be occasional lights visible, particularly in the vicinity of Banchory. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and this part of the landscape, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.246 This would result in a low magnitude of change and a **minor** effect during the hours of darkness that would not be significant.

6.6.247 Although theoretical visibility is predicted between Slewdrum Forest and Crathes Banchory, views north-east from the road would be restricted by combination of forestry, the valley landform at Bridge of Canny, adjacent buildings and tree cover at Banchory over a distance of approximately 13.3 km. However, from Crathes, eastbound road users would not experience any further effects as the Proposed Development would be to the rear of the direction of travel.

A93 – westbound

6.6.248 Road users travelling west from Drumoak towards Banchory would experience oblique views north-west from the road across the rolling landform over a distance of approximately 4.7 km between Drumoak and Crathes. This would introduce a low medium magnitude of change and result in a **moderate minor** effect that would not be significant, apart from the approximate 725 m section near Nether Park where no views would be available.

6.6.249 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to seven proposed lit turbines. Where views would be available from these parts of the path, the lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. There would be occasional lights visible, particularly in the vicinity of Banchory. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and this part of the landscape, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.250 This would result in a low magnitude of change and a **minor** effect during the hours of darkness that would not be significant.

6.6.251 As the road continues west from Crathes towards Banchory views are restricted by woodland to the north of the road, buildings and tree cover within Banchory, the valley landform at Bridge of Canny and forestry to the west. There is no further visibility until west of Kincardine O'Neil by which point the Proposed Development would be behind road users travelling west.

B993

6.6.252 From the A93 south-east of Kincardine O'Neil, the B993 heads north-east towards Torphins and continues northwards towards Millbank where it meets the A944. From Tillfourie it continues north-eastwards towards Monymusk. The road passes approximately 2.5 km to the west of the Proposed Development at its closest point.

6.6.253 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, there theoretical visibility of up to all 16 turbines from the A93 for a distance of approximately 2.4 km as the road continues north-eastwards towards Torphins. As the road continues past Toprhins there is theoretical

visibility of a reduced number of turbines over approximately 5.5 km before there is theoretical visibility of up to all 16 turbines from the majority of the remainder of the road within 10 km of the Proposed Development except for a short section south of Millbank.

6.6.254 Referring to **Technical Appendix 6.1**, users of minor roads a judged to have a medium sensitivity to changes in their visual amenity.

B993 – northbound

6.6.255 From the south and the junction with the A93, road users would experience theoretical visibility of up to all 16 turbines over approximately 2.4 km. However, actual visibility would be limited by intervening trees to the north of the road, with views becoming available as the road approaches the Craiglash turnoff. From this point road users would experience direct views towards the Proposed Development which would be seen on the distant landform.

6.6.256 At over 9 km to the west of the Proposed Development, during daylight hours, the Proposed Development would introduce a low medium magnitude of change. Combined with the sensitivity of the receptors, this would result in a **moderate** effect that would not be significant. These effects would be experienced for approximately 1.1 km to near Cockardie.

6.6.257 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to five of the seven proposed lit turbines. Where views would be available, the lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present apart from occasional lights around properties and of other vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the road, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.258 This would result in a low magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

6.6.259 Effects would gradually increase as the road continues north-eastwards past Cockardie the magnitude of change during daylight hours would increase to medium with effects becoming **moderate** and significant. During the hours of darkness, the magnitude of change would increase to low medium with effects judged as **moderate** and not significant.

6.6.260 These effects would continue for approximately 2 km, with views of the Proposed Development becoming increasingly experienced at an oblique to perpendicular angle from the road as it continues north towards Torphins where views would be screened by buildings and surrounding trees within the settlement as the road passes through the centre of the settlement.

6.6.261 To the north of Torphins, views would be restricted by landform to the east of the road for approximately 400 m. Views of a limited number of turbines would be available for approximately 1.8 km as the road continues north-eastwards before becoming screened by a combination of landform and forestry. Over this section of the road, views would be experienced at a perpendicular angle to the road, resulting in a low magnitude of change and a **moderate minor** effect during daylight hours and a low to very low magnitude of change and a **minor** effect during the hours of darkness. Neither of these effects would be considered significant.

6.6.262 As the road continues northwards towards Easthill (Viewpoint 6), over a distance of approximately 900 m, there would be views of up to all 16 turbines which would be seen on the landform that provides the backdrop to easterly views. This would result in a high magnitude of change and a **major moderate** and significant effect during daylight hours and a medium magnitude of change and a **moderate and significant** effect during the hours of darkness.

6.6.263 North of Easthill, the Proposed Development would be behind road users travelling northwards and as such they would no longer experience effects.

B993 – southbound

6.6.264 Road users travelling southwards from the direction of Monymusk would experience oblique views that would be partially screened by intervening forestry. At a distance of over 9 km, they would experience a low medium magnitude of change. Combined with the sensitivity of the receptors, this would result in a **moderate** effect that would not be significant. These effects would be experienced for approximately 2.6 km as the road continues south towards the A944.

6.6.265 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven proposed lit turbines. Where views would be available, the lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights currently present apart from occasional lights around properties and of other vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the road, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.266 This would result in a low magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

6.6.267 South of Millbank there would be limited views for approximately 700 m with views partially screened by intervening woodland. Over this section of the road, views would be experienced at an oblique angle to the road, resulting in no greater than a low medium magnitude of change and a **moderate** effect during daylight hours that would not be significant and a low magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

6.6.268 As the road continues southwards for approximately 1.5 km views would be screened by landform.

6.6.269 Further south, the Proposed Development would be seen in views at an oblique angle to the road introducing a high magnitude of change and a **major moderate** and significant effect during daylight hours and a medium magnitude of change and a **moderate and significant** effect during the hours of darkness over approximately 5.4 km to Easthill until views are screened by landform.

6.6.270 South of Easthill as the road continues towards Torphins, views would be restricted by a combination of landform and forestry for a short distance before views would be available a limited number of turbines for approximately 1.8 km as the road continues south-westwards. Over this section of the road, views would be experienced at a perpendicular angle to the road, resulting in no greater than a low magnitude of change and a **moderate minor** effect during daylight hours and a low to very low magnitude of change and a **minor** effect during the hours of darkness. Neither of these effects would be considered significant.

6.6.271 South of Torphins, the Proposed Development would be behind road users travelling southwards and as such they would no longer experience effects.

B9119

6.6.272 The B9119 is located approximately 2.4 km to the north of the Proposed Development at its closest point, as the route runs on a broadly east-west alignment.

6.6.273 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, there is theoretical visibility of up to all 16 turbines from Tullochvenus in the west for a distance of approximately 3.5 km as the road continues eastwards to north-west of Tornaveen before views become restricted by landform. As the road continues east from Tornaveen, there is theoretical visibility up to all 16 turbines for approximately 1 km before theoretical visibility reduces and no views are available for approximately 1.4 km. To the east of the junction with the B993 there is no visibility for a short distance before views become available. As the road continues eastwards around the northern foot of Hill of Fare there are views of a reduced number of turbines for approximately 5 km, beyond which there are views of up to all 16 turbines for the remainder of the route within 10 km as it continues east towards Echt and Garlogie.

6.6.274 Referring to **Technical Appendix 6.1**, users of minor roads a judged to have a medium sensitivity to changes in their visual amenity.

B9119 - eastbound

6.6.275 Between Tullochvenus and Tornaveen actual visibility is restricted by adjacent forestry, with views becoming available as the road turns to the south near Cloak Wood, where the elevation of the road allows open, direct views towards the distant landform of Hill of Fare on the horizon. At over 8 km to the north-west of the Proposed Development, during daylight hours, the Proposed Development would introduce a medium magnitude of change. Combined with the sensitivity of the receptors, this would result in a moderate effect that would not be significant.

6.6.276 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven of the proposed lit turbines. The lights would appear as very small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present apart from occasional lights around properties and of other vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the road, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.277 This would result in a low medium magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant. These effects would be experienced over approximately 2.5 km as the road continues southwards towards Tornaveen, where landform restricts visibility for approximately 390 m.

6.6.278 From Tornaveen these effects would be experienced for a further 1.8 km before visibility gradually reduces and no views become available as the road approaches the junction with the B993.

6.6.279 From the junction with the B993 near Bandodle there would be views of a limited number of turbines that would be seen in southerly views at a perpendicular angle to the route and the direction of travel for approximately 5 km. Views would be partially restricted by forestry at Midmar Forest on the northern slopes of Hill of Fare. Over this section, the Proposed Development would introduce a medium high

magnitude of change and result in a **moderate and significant** effect during daylight hours and the hours of darkness.

6.6.280 As the road continues eastwards towards Echt and Garlogie, the Proposed Development would be behind road users travelling eastwards. As such they would no longer experience effects.

B9119- westbound

6.6.281 Road users travelling west would experience views of up to all 16 turbines from east of Garlogie over a distance of approximately 7.1 km to west of Echt. Due to the orientation of the road relative to the wind farm and the landform, the proposed turbines would occupy a small lateral extent of views such that it would introduce a medium magnitude of change and a **moderate** effect that would not be significant.

6.6.282 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven proposed lit turbines. However, from Echt the number of lit turbines visible reduces. The lights would appear as very small, noticeable red dots, introduced in a part of the view where no other lights are currently present apart from occasional lights around properties and of other vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the road, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.283 This would result in a low medium magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

6.6.284 As the road continues west, effects would be the same as those judged for eastbound road users until the junction with the B993, beyond which receptors would not experience further effects the Proposed Development would be behind road users travelling westwards and they would not experience further effects.

B9125

6.6.285 The road links the B977 to the south-east of the Proposed Development and the B9119 at Garlogie and is located approximately 4.2 km from the Proposed Development at its closest point at the junction with the B977.

6.6.286 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, there is theoretical visibility of up to all 16 turbines south of Garlogie over a distance of approximately 3 km before theoretical visibility is reduced by the screening provided by the landform of Meikle Tap for the remaining 2.4 km of the road.

6.6.287 South of Garlogie over a distance of approximately 3 km, road users would experience oblique views of the Proposed Development which would occupy a small lateral extent of views such that it would introduce a medium magnitude of change and a moderate effect that would not be significant.

6.6.288 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven proposed lit turbines. The lights would appear as very small, noticeable red dots, introduced in a part of the view where no other lights are currently present apart from occasional lights around properties and of other vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the road, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.289 This would result in a low medium magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

6.6.290 West of Schoolhill where the theoretical visibility is reduced, with reference to Viewpoint 3 (see **Volume 3**) road users would experience a low medium magnitude of change a **moderate** effect during daylight hours and a low magnitude of change and a **moderate minor** effect during the hours of darkness. These effects would not be considered significant.

6.6.291 Effects would be the same for road users travelling north or south along the route.

B977

6.6.292 The road links the A980 north of Banchory to the south of the Proposed Development and passes along the southern foot of Hill of Fare before continuing north to Echt, Dunecht and Lyne of Skene. It is located approximately 3.1 km to the south-east of the Proposed Development at its closest point.

6.6.293 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, there is theoretical visibility of a limited number of turbines between its junction with the A980 north of Banchory and Echt to the north-east and theoretical visibility of up to all 16 turbines north-east of Echt.

6.6.294 Referring to **Technical Appendix 6.1**, users of minor roads a judged to have a medium sensitivity to changes in their visual amenity.

B977 – northbound

6.6.295 From the junction with the A980 north of Banchory road users would experience views at a perpendicular angle to the road and of a limited number of turbines only

over a distance of approximately 6 km. Due to the orientation of the road relative to the wind farm and the level of screening provided by the landform to the north of the road and trees, the Proposed Development would introduce a low magnitude of change and a **moderate minor** effect that would not be significant.

6.6.296 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to three of the seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where no other lights are currently present apart from occasional lights around properties and of other vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the substantial difference in elevation between the aviation lights and the road, their intensity would be perceived at a much lower intensity than the stated 2000/200 cd.

6.6.297 This would result in a low to very magnitude of change and a **minor** effect during the hours of darkness that would not be significant.

6.6.298 As the road heads north there is no visibility for approximately 1.3 km due to the screening provided by Meikle Tap. Theoretical visibility recommences as the road passes the site entrance where there will be views of the site access and associated works. However, as the road approaches Echt, the Proposed Development will pass to the rear of road users, who will experience a low magnitude of change and a **moderate minor** effect that would not be significant during daylight hours and a low to very magnitude of change and a **minor** effect during the hours of darkness. Neither of these effects would be considered significant and would be experienced for approximately 2.2 km south of Echt.

6.6.299 North of Echt, the Proposed Development would be behind road users travelling northwards and they would not experience further effects.

B977 – southbound

6.6.300 With reference to **Figure 6.18** illustrating principal visual receptors within 20 km overlaid with the blade tip ZTV, there is theoretical visibility of up to all 16 turbines from the north-west near Lyne of Skene to Dunecht over a distance of approximately 2.7 km. The proposed turbines would be seen on the distant landform, introducing a low medium magnitude of change and a moderate effect that would not be considered significant.

6.6.301 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to all seven of the proposed lit turbines. The lights would appear as very small, noticeable red dots, introduced in a part of the view where no other lights are currently present apart from occasional lights around properties and of other vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the road, their intensity would be perceived at a lower intensity than the stated 2000/200 cd.

6.6.302 This would result in a low magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

6.6.303 Between Dunecht and Echt, the lower elevation of this part of the route together with the intermittent screening of adjacent belts of trees means that for approximately 3.8 km south of Dunecht to Upper Mains, the Proposed Development would introduce a low medium magnitude of change and a moderate effect that would not be significant during daylight hours and a low magnitude of change and a **moderate minor** effect during the hours of darkness that would not be significant.

6.6.304 South of Upper Mains, the route descends towards Echt and open views are available towards Hill of Fare. Over this section, receptors would experience oblique views towards the Proposed Development which would be seen on the landform that forms the backdrop of part of the view. During daylight hours, this would introduce a medium magnitude of change **moderate** effect that would be significant.

6.6.305 During the hours of darkness, with reference to the lit turbine ZTV at **Figure 6.7**, receptors would experience theoretical visibility of up to five of the seven proposed lit turbines. The lights would appear as small, noticeable red dots, introduced in a part of the view where there are no other lights are currently present. However, light sources are present within Echt comprising streetlights, lighting at properties and the lights of vehicles travelling along the road. With reference to the lit turbine lighting intensity ZTV at **Figure 6.8**, although the lit turbines would be visible in theory, due to the difference in elevation between the aviation lights and the settlement, their intensity resulting in a low medium magnitude of change and a **moderate** effect during the hours of darkness that would not be significant.

6.6.306 Over the remaining section of road to its junction with the A980 north of Banchory, road users would experience the same effects as experienced by northbound travellers.

Table 6.10 – Assessment of Effects on Roads

		Daylight Hours			Hours of Darkness		
Settlement	**Sensitivity**	**Magnitude of Change**	**Effect**	**Significant**	**Magnitude of Change**	**Effect**	**Significant**
A944 - eastbound							
Millbank to Dunecht – 9.0 km section	Low medium	Medium	Moderate	No	Low medium	Moderate minor	No
A944 - westbound							
Gairloch to Dunecht – 4.7 km section	Low medium	Low	Moderate minor	No	Low to very low	Minor	No
Dunecht to Upper Sauchen- 5.4 km section	Low medium	Medium	Moderate	No	Low medium	Moderate minor	No
A980 - eastbound							
NW of Lumphanan 1 km section	Low medium	Low	Moderate minor	No	Low to very low	Minor	No
Lumphanan 2.4 km section	Low medium	Very low	Minor	No	No change	No effects	No
Lumphanan to Torphins 3.7 km section	Low medium	Medium	Moderate	No	Low medium	Moderate minor	No
Torphins to Banchory - 7km section	Low medium	Medium high	Moderate	**Yes**	Low medium	Moderate minor	No
A980 - westbound							
Banchory – Milton of Campfield - 7km section	Low medium	Medium high	Moderate	**Yes**	Low medium	Moderate minor	No
A93 - eastbound							
Kincardine O'Neil – 1 km section	Low medium	Low medium	Moderate minor	No	Low	Minor	No
A93 - westbound							
Drumoak to Crathes – 4.7 km section	Low medium	Low medium	Moderate minor	No	Low	Minor	No
B993 – northbound							
North of A93 junction to Cockardie – 1.1 km section	Medium	Low Medium	Moderate	No	Low	Moderate minor	No
Cockardie to Torphins – 2 km section	Medium	Medium	Moderate	**Yes**	Low medium	Moderate	No
North of Torphins – 1.8 km section	Medium	Low	Moderate minor	No	Low to very low	Minor	No
Easthill- 900 m section	Medium	High	Major moderate	**Yes**	Medium	Moderate	**Yes**
B993 – southbound							
South of Monymusk – 2.6 km section	Medium	Low Medium	Moderate	No	Low	Moderate minor	No
South of Millbank – 700 m section	Medium	Low Medium	Moderate	No	Low	Moderate minor	No
South of Millbank to Easthill – 5.4 km section	Medium	High	Major moderate	**Yes**	Medium	Moderate	**Yes**
North of Torphins –	Medium	Low	Moderate minor	No	Low to very low	Minor	No

		Daylight Hours			Hours of Darkness		
Settlement	Sensitivity	Magnitude of Change	Effect	Significant	Magnitude of Change	Effect	Significant
1.8 km section							
B9119 - eastbound							
Tullochvenus to Tornaveen - 2.5 km section	Medium	Medium	Moderate	No	Low medium	Moderate minor	No
Tornaveen to B993 - 1.8 km section	Medium	Medium	Moderate	No	Low medium	Moderate minor	No
B993 east - 5 km section	Medium	Medium high	Moderate	**Yes**	Medium	Moderate	**Yes**
B9119 - westbound							
7.1 km section to west of Echt	Medium	Medium	Moderate	No	Low medium	Moderate minor	No
5 km section to the B993	Medium	Medium high	Moderate	**Yes**	Medium	Moderate	**Yes**
B9125							
South of Garlogie - 3 km section	Medium	Medium	Moderate	No	Low medium	Moderate minor	No
West of Schoolhill - 2.4 km section	Medium	Low Medium	Moderate	No	Low	Moderate minor	No
B977 - northbound							
A980 junction north-east - 6 km section	Medium	Low	Moderate minor	No	Low to very low	Minor	No
South of Echt - 2.2 km section	Medium	Low	Moderate minor	No	Low to very low	Minor	No
B977 - southbound							
Lyne of Skene to Dunecht - 2.7 km section	Medium	Low medium	Moderate	No	Low	Moderate minor	No
Dunecht to Upper Mains - 3.8 km section	Medium	Low medium	Moderate	No	Low	Moderate minor	No
Upper Mains to Echt	Medium	Medium	Moderate	**Yes**	Low medium	Moderate	No
South of Echt - 2.2 km section	Medium	Low	Moderate minor	No	Low to very low	Minor	No
A980 junction north-east - 6 km section	Medium	Low	Moderate minor	No	Low to very low	Minor	No

Bold text indicates a significant effect

Effects on the Dee Valley SLA

6.6.307 The Dee Valley SLA is situated approximately 2.5 km to the south of the Proposed Development and covers an extensive swathe of the southern part of the detailed 20 km LVIA study area. Several of the LVIA Viewpoints are located in the SLA (VPs 4, 14, 17, 18, 19 and 22). The Aberdeenshire Local Landscape Designation Review[xx] sets out that the SLA includes the River Dee and its associated landscapes, taking in the adjoining hills comprising The Mounth to the south and the Hill of Fare to the north and covers the settings of the riverside towns of Aboyne and Banchory and comprises intact farmed valley landscapes with wooded sides rising to moorland hills. It notes its strong sense of naturalness and the opportunities it offers for recreation as well as its opportunities to experience tranquillity and the area's wildlife.

6.6.308 The susceptibility of the SLA to wind farm development beyond its boundaries is assessed as medium as the Grampian Outliers LCT form the backdrop to SLA and are not currently influenced by existing wind farm development. The value of the SLA is assessed as high on account of its designation for its scenic and recreation value. Overall, the SLA is judged to have a medium high sensitivity.

6.6.309 With reference to **Figure 6.11** showing landscape designations within 20 km of the Proposed Development overlaid with the blade tip ZTV, there is extensive theoretical visibility within approximately 8 km to the west and south of the Proposed Development and to the easterly end of the SLA at Peterculter, approximately 14 km to the east. Beyond approximately 8 km to the west, theoretical visibility becomes more patchy.

6.6.310 In views north from the SLA, the distinctive form of Hill of Fare provides a prominent focal point on the horizon, providing the backdrop to view, cloaked by conifer plantation woodlands. The Proposed Development would introduce new elements on the horizon, with the surrounding forestry plantation screening views of ground-level components. This would introduce a high magnitude of change and result in a **major moderate and significant** effect on the SLA extending to approximately 7 km from the Proposed Development.

6.6.311 Beyond approximately 7 km, there is no further theoretical visibility to the south and to the south-west, predicted visibility becomes more intermittent. To the south there would be no further effects on the SLA. To the south-west where theoretical visibility is more intermittent, the scale of the turbines is reduced due to the increased distance and the form of Hill of Fare is less distinctive compared with views from the more northerly parts of the SLA. Actual visibility would also be less than predicted due to the extensive woodlands to the north and south of the B993.

6.6.312 Where views are available between approximately 7 and 9 km to the south-west, the Proposed Development would introduce a low medium magnitude of change and result in a **moderate effect** that would not be significant.

6.6.313 At distances beyond approximately 9 km to the south-west, the magnitude of change would reduce to low, with moderate minor effects which would not be significant.

6.6.314 Overall, while it is acknowledged there would be some significant effects on views from parts of the SLA, it is not considered that the addition of the Proposed Development would be such as to prevent an understanding or appreciation of the underlying landscape of the SLA or its special qualities.

6.7 Mitigation

6.7.1 As discussed in best practice guidance for EIA, mitigation measures may include:

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

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

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

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

6.7.5 Appropriate offsets from all properties and settlements, have been maintained to ensure that no property would experience an overbearing visual impact such that it became an unattractive place to live.

6.7.6 The above principles have been applied as a number of iterations to the design were made. Taking all other engineering and environmental constraints into account, the

final layout of the turbines on site was designed to achieve a balanced array of turbines when viewed from the surrounding landscape.

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

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

6.7.9 Mitigation of visible turbine aviation lighting has been designed into the scheme by adopting a cardinal lighting scheme where only the outermost turbines are lit (T01, T04, T06, T07, T10, T12 and T16). Visibility sensors will be installed on relevant turbines to measure the prevailing atmospheric conditions and visibility range. Should atmospheric conditions mean that visibility from the turbines within the site is greater than 5 km from the Proposed Development, CAA policy permits lights to operate in a lower intensity mode, being a minimum of 10% of their capable illumination. Therefore, the 2000 cd steady state lights would operate at 200 cd. However, if visibility is restricted to 5 km or less, the lights would operate at 2,000 cd.

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

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

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

6.8 Assessment of Residual Effects

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

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

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

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

6.9 Assessment of Cumulative Effects

6.9.1 For the cumulative assessment, consideration was initially given to a 60 km radius from the Site, as recommended by NatureScot best practice guidance[xxi]. Following this, all other wind energy developments that are operational, under construction, consented, or subject to a valid full planning application within 35 km of the Proposed Development were identified and reviewed as part of the cumulative baseline. It is acknowledged that this list is constantly evolving and therefore, the 10th August 2023 was used as an effective ‘cut-off’ date after which no further research was undertaken on the evolving status of wind energy development in the study area, and the CLVIA reflects the status of each wind farm at the time of this date.

6.9.2 In order that the assessment remains focused on those other schemes which have the greatest potential to give rise to significant cumulative effects, it was deemed

appropriate to focus the assessment on a detailed 20 km area from the Proposed Development. Following feedback received at Scoping it was agreed to include all turbines within 5 km of the Proposed Development. It was also deemed appropriate to scope out any turbines between 50 m and 80 m which lie over 10 km from the nearest proposed turbine. Schemes that are at the pre-scoping stage have not been considered due to the uncertainty that these schemes will come forward and the lack of adequate information about project details. This is in accordance with the approach advocated in GLVIA3.

6.9.3 The cumulative sites within 35 km are illustrated on **Figure 6.27** and cumulative sites within the 20 km detailed study area are illustrated on **Figure 6.28**. At the time of preparing this LVIA, the other wind farms within the detailed 20 km cumulative study area which were either operational, under construction or in planning are as set out in **Table 6.11**.

Table 6.11 Other Wind Farms within 20 km of the Proposed Development

Site	Blade Tip Height (m)	Number of Turbines	Distance and Direction
Operational			
Auchmore	45.5 m	2	1.6 km to the north-west
Auchorie Farm *	45.5 m	2	3.1 km to the north-west
Easter Tolmauds	79.6 m	2	5.5 km to the north-west
Fordie Farm	22.5 m	1	2.3 km to the west
Hill of Bandodle	14 m	1	3.7 km to the north-west
Land to North West of Thistleycrook	22.75 m	2	2.6 km to the west
Meikle Carewe	70 m	12	17 km to the south-east
Mid Hill I and II	110 - 125 m	33	14.6 km to the south
South Lasts Farm	86.5 m	2	12.6 km to the east
Upper Sauchen	51m	1	6.6 km to the north
Consented or Under Construction			
Craigneil	135 m	11	15.4 km to the south-east
Fetteresso	149 – 200 m	10	17 km to the south
In Planning			
N/A	N/A	N/A	N/A

***** It is noted that following the cut-off date for the cumulative assessment an application for the increase in height of the two turbines at Auchorie Farm has been submitted. However, it is not considered that this increase, if consented, would make any material change to the findings of the cumulative assessment set out below.

6.9.4 For the avoidance of doubt and to reiterate the methodology adopted in **Technical Appendix 6.1**, the baseline against which the solus effects of the Proposed Development have been assessed includes all operational wind farms. An assessment of the Proposed Development with consideration of other operational wind farms has already therefore been presented in the main section of this LVIA.

6.9.5 The primary purpose of the cumulative impact assessment is therefore to consider the additional effects that might arise as a result of the Proposed Development if the other consented and in planning (awaiting determination) schemes were also operational. In this instance however, there were no in planning schemes in the 20km detailed study area, so this scenario did not apply to this assessment. In addition, this cumulative assessment also includes a further consideration of the overall totality of the effect, when the Proposed Development is considered alongside the other operational or proposed schemes across the study area.

6.9.6 The baseline in the cumulative impact assessment is therefore extended to consider other schemes that are not yet present in the landscape but are at various stages in the planning process. One scenario is considered, reflecting that there were no in planning schemes in the 20km detailed study area:

- Scenario 1: assumes that other consented (but as yet unbuilt) wind farms are operational.

Cumulative ZTVs and Wireframes

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

6.9.8 It should be reiterated that ZTVs imply a much greater geographical extent of influence on the landscape and views of it than would actually be the case. It therefore follows that the cumulative ZTVs also exaggerate the actual impacts of the turbines on landscape character and visual amenity as they do not take account of vegetation or buildings in the landscape, which may restrict the nature and extent of views.

6.9.9 Cumulative ZTVs have been produced for the following combinations of existing and consented other wind farm sites:

- **Figure 6.29** CZTV with Operational Auchorie Farm, Auchmore, Land to the North-West of Thistleycrook, Fordie Farm, Easter Tolmauds and Upper Sauchen;
- **Figure 6.30** CZTV with Operational Mid Hill I & II;

- **Figure 6.31** CZTV with Operational South Lasts Farm;
- **Figure 6.32** CZTV with Operational Meikle Carewe;
- **Figure 6.33** CZTV with Consented or Under Construction Craigneil; and
- **Figure 6.34** CZTV with Consented or Under Construction Fetteresso.

Cumulative Effects on Landscape Character

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

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

6.9.12 It has been assessed in the assessment of the solus effects of the Proposed Development set out earlier in this chapter that there would be some limited significant effects on landscape character as a result of the Proposed Development. The purpose of this section of the cumulative assessment is therefore to identify whether there would be any change to the assessments of significance previously set out in relation to the Proposed Development, once the other wind turbines which are not already operational are considered to form part of the baseline landscape.

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

6.9.14 The assessment considers the scenario where the additional consented developments are also considered to be operational.

Cumulative Scenario 1 – Other consented schemes are also considered to be operational

6.9.15 In the first cumulative scenario considered (where other consented wind farms are also considered to be operational), there would be two additional wind farms, Fetteresso, situated approximately 17 km to the south of the Proposed Development and Craigneill, situated approximately 16 km to the south-east of the Proposed Development. Given the distance between the Fetteresso scheme and the Proposed Development and the nature of the intervening landscape between the sites, in particular that the Fetteresso turbines are located immediately beyond the already operational Mid Hill scheme, it is not considered that the inclusion of this scheme within the baseline would result in any change to the effects on landscape character in relation to the Proposed Development which are already set out in the main assessment. Likewise, the Craigneill scheme lies at a similar distance away from the site and is also located adjacent to the existing Meikle Carewe scheme. Again, it is not considered that the inclusion of this scheme within the baseline would result in any change to the effects on landscape character in relation to the Proposed Development which are already set out in the main assessment.

Totality of the Combined Effect of All Schemes

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

6.9.17 With regard to the Proposed Development and the other already operational schemes, it is noted that both the Mid Hill and Meikle Carewe schemes are located at least 15 km from the Proposed Development. The consented Fetteresso scheme is also located immediately adjacent to the Mid Hill scheme, with the Craigneill scheme located adjacent to the existing Meikle Carewe scheme. Several other smaller scale schemes are already located in the landscape closer to the site and provide some existing characteristic of wind energy in the landscape, albeit none of the schemes are of a scale such as the Proposed Development. Collectively therefore the overall effects of all the schemes together would be no more than a minor degree greater than those identified in relation to the Proposed Development which are already set out in the main assessment.

Totality of the Combined Effect of All Schemes

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

6.9.19 With regard to the Proposed Development and the other already operational schemes, it is noted that both the Mid Hill and Meikle Carewe schemes are located at least 15 km from the Proposed Development. The consented Fetteresso scheme is also located immediately adjacent to the Mid Hill scheme, with the Craigneill scheme located adjacent to the existing Meikle Carewe scheme. Several other smaller scale schemes are already located in the landscape closer to the site and provide some existing characteristic of wind energy in the landscape, albeit none of the schemes are of a scale such as the Proposed Development. Collectively therefore the overall effects of all the schemes together would be no more than a minor degree greater than those identified in relation to the Proposed Development which are already set out in the main assessment.

Cumulative Effects on Views and Visual Amenity

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

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

Cumulative 'in combination' visual effects

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

6.9.23 As set out in the main assessment, given their distance from the site, there are relatively few locations where the other existing Mid Hill and Meikle Carewe wind turbines in the study area are seen in views from the landscape in and around the Proposed Development. The smaller scale turbines closer to the site are however seen sporadically in views.

Cumulative Scenario 1 – Other consented schemes are also considered to be operational

6.9.24 In the first cumulative scenario considered (where other consented wind farms are also considered to be operational), there would be two additional wind farms, Fetteresso, situated approximately 17 km to the south of the Proposed Development and Craigneill, situated approximately 16 km to the south-east of the Proposed Development. In a similar manner to effects on landscape character, given the distance between the two schemes and the Proposed Development and the nature of the intervening landscape between the sites, in particular that the Fetteresso turbines are located immediately beyond the already operational Mid Hill scheme and that Craigneill lies next to the existing Meikle Carewe turbines, it is not considered that the inclusion of these schemes within the baseline would result in any change to the effects on visual amenity in relation to the Proposed Development which are already set out in the main assessment.

Cumulative 'sequential' effects

6.9.25 A 'sequential' cumulative visual effect is the term used to refer to the situation where a viewer is able to see one or more further wind farms in addition to the Proposed Development, whilst travelling along a linear route. This could be either on foot, whilst walking on a footpath, or by bicycle or car along the public highway. The main assessment focussed on the following routes which it was identified had the potential to experience significant effects as a result of the proposed scheme and these are also used as the basis for the cumulative assessment:

- A980;
- B993;
- B9119; and
- B977.

6.9.26 In the first cumulative scenario considered (where other consented wind farms are also considered to be operational), there would be two additional schemes, Mid Hill and Meikle Carewe, both situated over 15km from the site. It is not considered that the inclusion of these schemes within the baseline would result in any sequential cumulative visual effects that would lead to a change to the effects on visual amenity in relation to the Proposed Development which are already set out in the main assessment.

Totality of the Combined Effects of all schemes

6.9.27 With regard to the Proposed Development and the other already operational schemes, it is noted that both the Mid Hill and Meikle Carewe schemes are located at least 15 km from the Proposed Development. The consented Fetteresso scheme is also located immediately adjacent to the Mid Hill scheme, with the Craigneill scheme located adjacent to the existing Meikle Carewe scheme. Several other smaller scale schemes are already located in the landscape closer to the site and provide some existing views of wind energy in the landscape, albeit none of the schemes are of a scale such as the Proposed Development. Collectively therefore the overall effects of all the schemes together would be no more than a minor degree greater than those identified in relation to the Proposed Development which are already set out in the main assessment.

Summary of Cumulative Effects

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

6.9.29 In the first cumulative scenario considered (where other consented wind farms are also considered to be operational), there would be two additional schemes Fetteresso and Craigneill. It is not considered that the inclusion of these schemes within the baseline would result in any cumulative landscape or visual effects that would lead to a change to the effects in relation to the Proposed Development which are already set out in the main assessment.

6.9.30 With regard to the totality of the combined effects of all schemes, including the Proposed Development, the existing Mid Hill and Meikle Carewe schemes are also both situated over 15 km from the site. Several other smaller scale schemes are already located in the landscape closer to the site and provide some existing views of wind energy in the landscape, albeit none of the schemes are of a scale such as the Proposed Development. Collectively therefore the overall effects of all the schemes together would be no more than a minor degree greater than those identified in relation to the Proposed Development which are already set out in the main assessment.

6.10 Summary

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

6.10.2 The existing landscape and visual baseline has been documented and is presented at **Section 6.5** and the assessment has been supported by figures (presented in **Volume 2**) and visualisations produced to NatureScot Visualisation Standards that show representative views from locations consulted on at Scoping that illustrate existing and proposed views during daylight hours from all 22 LVIA viewpoints and views during dark sky hours from a select number of viewpoint locations (presented in **Volume 3**).

6.10.3 The Proposed Development is located in Aberdeenshire, Scotland and is located on the Hill of Fare. The site is centred on Ordnance Survey British National Grid 369714, 802726. The nearest settlements are Torphins, located approximately 3.4 km to the west, Midmar located 3.6 km to the north, Echt located approximately 4 km to the north-east and Banchory located approximately 6 km to the south.

6.10.4 There are no national landscape designations covering the Site. The nearest national landscape designation is the Cairngorms National Park (CNP) situated approximately 16.8 km to the south-west. The Proposed Development is not located within a locally designated landscape. The nearest locally designated landscape is the Dee Valley SLA located approximately 2.15 km to the south.

6.10.5 The Proposed Development would be sited on a narrow upland plateau flanked by hillslopes and extensive forest plantation forming a notable topographical feature experienced in many views from the wider surrounding lower-lying landscape. The proposed turbines and associated infrastructure are located within LCT 22 Moorland Plateau (i) Grampian Outliers.

6.10.6 Appropriate offsets from all properties have been maintained to ensure that no property would experience an overbearing visual impact. Mitigation has been designed into the proposed aviation lighting by a reduced lighting scheme and to reduce the intensity of the 2000 cd steady state lights in certain atmospheric

conditions by reducing their intensity and attenuating the amount of vertical downwards lighting in order to reduce the visual impact experienced by receptors below the lights.

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

6.10.8 The Proposed Development would result in direct and significant effects on the part of the landscape character type within which the Proposed Development is located. Indirect and significant effects would extend to approximately 7 km within LCT 1 (ix) Central Wooded Estates to the north and east, LCT 25 (ii) Deeside to the south and LCT 11 (i) The Cromar Uplands to the north-west and within approximately 10 km in LCT 22 (ii) The Mounth to the south.

6.10.9 The Proposed Development would be visible from various nearby properties, settlements as well as parts of the surrounding road, footpath and cycle networks.

6.10.10 It has been assessed that there would be significant visual effects experienced at 16 of the 22 representative viewpoints, as summarised above in **Table 6.6** during daylight hours and at 11 viewpoints during the hours of darkness.

6.10.11 In terms of the effects on residential properties within 2 km, twelve of the 28 properties would experience a significant visual effect from either a part of their house, garden or principal access route.

6.10.12 It is concluded that when the experience from each property is considered in the round, none of the residents of any of the properties would experience such an overbearing or overwhelming effect on their visual amenity that their properties would become unattractive places in which to live.

6.10.13 In relation to settlements, the assessment found that all of the settlements within 5 km (Torphins, Midmar, Echt, Inchmarlo and Banchory) would experience significant visual effects during daylight and dark sky hours and settlements within 5 to 10 km brought forward into detailed assessment would also experience significant visual effects during daylight and dark sky hours.

6.10.14 The assessment of routes found that receptors would experience significant effects from parts of: Core Path 616.01 – Torphins Wood Circular; Core Path 616.02 - Torphins: Cemetery Walk; Core Paths 405.02 - Myriewell Circular & Core Path 405.01 - Echt to North Kirkton Woods; Core Path 417.01 - Sauchen Farm to A944; Core Path 614.02 – Scolty Hill Path and Aberdeenshire Cycle Route - Midmar – Dunecht.

6.10.15 The assessment of roads found that receptors would experience significant effects from parts of: the A980; the B993; the B9119; and the B977.

6.10.16 In terms of effects on the Dee Valley SLA, the assessment found that indirect significant effects on views north from the SLA would extend to approximately 7 km but the addition of the Proposed Development would not undermine the understanding or appreciation of the underlying landscape of the SLA or its special qualities.

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

6.10.18 In the first cumulative scenario considered (where other consented wind farms are also considered to be operational), there would be two additional schemes Fetteresso and Craigneill. It is not considered that the inclusion of these schemes within the baseline would result in any cumulative landscape or visual effects that would lead to a change to the effects in relation to the Proposed Development which are already set out in the main assessment.

6.10.19 With regard to the Totality of the Combined Effects of all schemes, the existing Mid Hill and Meikle Carewe schemes are also both situated over 15km from the site. Several other smaller scale schemes are already located in the landscape closer to the site and provide some existing views of wind energy in the landscape, albeit none of the schemes are of a scale such as the Proposed Development. Collectively therefore the overall effects of all the schemes together would be no more than a minor degree greater than those identified in relation to the Proposed Development which are already set out in the main assessment.

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

6.10.21 Wind turbines give rise to a wide spectrum of opinions, ranging from strongly adverse to strongly positive, with a wide range of opinions lying somewhere between these two positions. Some people view wind turbines as incongruous or industrial structures whilst others view them as aesthetically pleasing, elegant structures and a positive response to climate change. In the case of the Proposed Development the

turbines and associated ancillary development may be viewed by some as a symbol of continued progress by society towards a low carbon future.

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

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

Table 6.12: Summary of Residual Effects

Likely Significant Effect	Mitigation	Means of Implementation	Residual Effect
During Construction			
Effects on Existing Landscape Features	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	By design	Worst case **Moderate / Minor non-significant** effect to moorland vegetation, watercourses and drainage channels
Effects on LCTs within which the Proposed Development is located	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	By design	Worst case **Major / moderate significant** effect to the central part LCT 22(i) Grampian Outliers where the Proposed Development would be located
Indirect effects to other LCTs	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	By design	Worst case **Moderate / Minor non-significant** effect to parts of LCT 22 (i) Grampian Outliers and LCT 25 (ii) Deeside
Visual effects	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	By design	Worst case **Major / moderate significant** temporary effect from elevated locations such as Viewpoint 10
During Operation			
LVIA Viewpoints during daylight hours	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	By design	Worst case **Significant effects** from 16 of the 22 LVIA Viewpoints
LVIA Viewpoints during dark sky hours	Reduced aviation lighting scheme agreed with the CAA	By design	Worst case **Significant effects** from 11 of the 22 LVIA Viewpoints
Effects on settlements during daylight hours	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	By design	Worst case **Significant effects** from seven settlements
Effects on settlements during dark sky hours	Reduced aviation lighting scheme agreed with the CAA	By design	Worst case **Significant effects** from seven settlements
Effects on users of Core Paths during daylight hours	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	By design	Worst case **Significant effects** from five Core Paths
Effects on users of Core Paths dark sky hours	Reduced aviation lighting scheme agreed with the CAA	By design	Worst case **Significant effects** from five Core Paths
Effects on users of Cycle Routes during daylight hours	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	By design	Worst case **Significant effects** from Aberdeenshire Cycle Route - Midmar – Dunecht
Effects on users of Cycle Routes during dark sky hours	Reduced aviation lighting scheme agreed with the CAA	By design	Worst case **Significant effects** from Aberdeenshire Cycle Route - Midmar – Dunecht
Effects on road users during daylight hours	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	By design	Worst case **Significant effects** from A980, B993, B9119, B977

Likely Significant Effect	Mitigation	Means of Implementation	Residual Effect
Effects on road users during dark sky hours	Reduced aviation lighting scheme agreed with the CAA	By design	Worst case **Significant effects** from B993, B9119
Effects on Dee Valley SLA	No additional mitigation – consideration of landscape and visual matters was inherent in the design process	By design	Worst case **Significant effects** extending to approximately 7 km from the Proposed Development.

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