CONTENTS

INTRODUCTION

7.1 This Chapter assesses the landscape and visual effects of the proposed Kirkton Energy Park (the proposed development), which is described in **Chapter 3: Description of Development**.

7.2 The Landscape and Visual Impact Assessment (LVIA) is based on an indicative turbine with an 83.4m hub height, 133m rotor diameter and maximum height to blade tip of 149.9m, as shown on **Figure 3.4**.

7.3 The LVIA has been undertaken by experienced Landscape Architects from SLR Consulting Ltd following the Guidelines for Landscape and Visual Impact Assessment (GLVIA) produced by the Landscape Institute and Institute of Environmental Management and Assessment (2013).

7.4 The LVIA considers the effects on:

- Landscape fabric which would be caused by changes to the physical form of the landscape and its elements as a result of the proposed development;
- Landscape character and designated landscapes, which would be caused by changes in the key characteristics and qualities of the landscape as a result of the proposed development; and
- Visual amenity for people (visual receptors) in the surrounding area which would be caused by changes in the appearance of the landscape as a result of the proposed development on people.

7.5 Impacts on landscape fabric occur when there is physical change to components of the landscape: landform, land use or land cover. Impacts on landscape character occur when there is change to the key characteristics of the landscape and the associated distinct and recognisable pattern of elements which give it a particular character. Visual amenity impacts comprise changes in views of the landscape and the overall effects on visual amenity.

7.6 Following GLVIA, landscape effects and visual effects are assessed separately. Landscape effects concern the physical aspects of an area, landscape character and how the landscape is experienced. Visual effects chiefly concern the nature of views obtained by viewers (known as 'visual receptors').

7.7 The LVIA Chapter is supported by:

- **Technical Appendix 7.1: LVIA Methodology**;
- **Technical Appendix 7.2: LVIA Visualisation Methodology**;
- **Technical Appendix 7.3: Viewpoint Assessment**;
- **Technical Appendix 7.4: Residential Visual Amenity Assessment** (RVAA);
- **Technical Appendix 7.5: Wild Land Area Assessment**; and
- **Technical Appendix 7.6: Sequential Assessment**.

- a series of Figures contained in Volume 3 of this EIA Report.

LANDSCAPE POLICY AND PLANNING GUIDANCE

7.8 A review of national and regional landscape policies and planning guidance that are specifically relevant to the LVIA is presented in this section. The site lies within the administrative boundary of The Highland Council (THC).

Scottish Planning Policy

7.9 **Table 7-1** includes the national policies which are particularly relevant to the LVIA.

Table 7-1: Key National Planning Policies Relevant to the LVIA

Policy Document	Relevant Policy	
Scottish Planning Policy (The Scottish Government, 2020)	169	*Development Management* Proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms and heat maps where these are relevant. Considerations will vary relative to the scale of the proposal and area characteristics but are likely to include.(inter alia).. • cumulative impacts – planning authorities should be clear about likely cumulative impacts arising from all of the considerations below, recognising that in some areas the cumulative impact of existing and consented energy development may limit the capacity for further development; • impacts on communities and individual dwellings, including visual impact, residential amenity, noise and shadow flicker; • landscape and visual impacts, including effects on wild land;
	194	The planning system should… • facilitate positive change while maintaining and enhancing distinctive landscape character;
	202	*Development Management* The siting and design of development should take account of local landscape character. Development management decisions should take account of potential effects on landscapes and the natural and water environment, including cumulative effects. Developers should seek to minimise adverse impacts through careful planning and design, considering the services that the natural environment is providing and maximising the potential for enhancement.
	203	Planning permission should be refused where the nature or scale of proposed development would have an unacceptable impact on the natural environment. Direct or indirect effects on statutorily protected sites will be an important

Policy Document	Relevant Policy	
		consideration, but designation does not impose an automatic prohibition on development.

Development Plan Policy

7.10 The site is located within the area covered by Highland-wide Local Development Plan (HwLDP) (THC, 2012). As detailed more fully in the Kirkton Planning Statement, where the development plan is more than five years old, the presumption in favour of sustainable development set out in SPP becomes a significant material consideration in determination of the application (paragraph 33 of SPP). The policies listed within **Table 7-2** are considered to be particularly relevant to the LVIA, including the Onshore Wind Energy Supplementary Guidance (2016) produced by THC.

Table 7-2: Key Development Plan Policies Relevant to the LVIA

Policy/Guidance Document	Policy/Section	Description	Response
Highland-wide Local Development Plan (2012) THC	Policy 36: Development in the Wider Countryside	Development proposals in the countryside will be assessed for the extent to which they (amongst other factors): are acceptable in terms of siting and design; are sympathetic to existing patterns of development in the area; are compatible with landscape character and capacity; avoid incremental expansion of one particular development type within a landscape whose distinct character relies on an intrinsic mix/distribution of a range of characteristics.	Refer to **Chapter 2: Site Description and Design Evolution, Chapter 3: Description of Development** and the **Design and Access Statement**, which describe the approach taken to consider the siting and design of the proposed development.
	Policy 51: Trees and Development	The Council will *"support development which promotes significant protection to existing hedges, trees and woodlands on and around development sites"* and *"will secure additional tree/hedge planting within a tree planting or landscape plan to compensate removal and to enhance the setting of any new development."*	The majority of the site is not wooded. Whilst tree felling is proposed as part of Kirkton Energy Park, the majority of this is to allow peatland restoration in the northern part of the site. As set out in **Technical Appendix 3.2** compensatory planting is proposed. Habitat enhancement is proposed through peat restoration (**Technical Appendix**

Policy/Guidance Document	Policy/Section	Description	Response
	Policy 52: Principle of Development in Woodland	This policy is clear that applicants should justify the need to develop a wooded site and that the site has *"capacity to accommodate the development."*	**8.5: Habitat Management Plan**). This habitat enhancement would complement local landscape character, restoring the landscape that would be consistent with the surrounding Sweeping Moorland and Flows Landscape Character Type.
	Policy 57: Natural, Built and Cultural Heritage	This policy states that the impact on all natural, built and cultural heritage features must be addressed when considering and assessing development proposals.	In relation to this chapter, the potential impact of the proposed development on landscape resource, designated landscapes (including Wild Land areas) and visual receptors has been assessed within this LVIA.
	Policy 61: Landscape	*"New developments should be designed to reflect the landscape characteristics and special qualities identified in the Landscape Character Assessment of the area in which they are proposed."* The Council will consider available Landscape Character Assessments, Landscape Capacity Studies and its supplementary guidance on Siting and Design and Sustainable Design when assessing new developments.	As is described in **Chapter 1: Introduction and Project Description,** the approach taken to consider the siting and design of the proposed Kirkton Energy Park included inputs from the landscape architects working on the project and considered factors such as the baseline landscape character of the site and surrounding area. Where practical, and within the parameters of other site constraints, the proposed development has sought to reduce potential landscape and visual effects.
	Policy 67: Renewable Energy Developments	This policy states that proposals for renewable energy development will be supported *"where it is satisfied that they are located, sited and designed such that they will not be significantly detrimental overall, either individually or cumulatively with other developments."* Landscape and visual impacts are referred to as key considerations in the Council's judgement on this matter.	

Policy/Guidance Document	Policy/Section	Description	Response
Onshore Wind Energy Supplementary Guidance (2016) THC	Landscape and Visual Effects, Para 4.10 onwards	This section states that *"all proposals should seek to avoid significant adverse landscape and visual effects individually and cumulatively, taking into account other built and permitted proposals as well as valid planning applications not yet determined (the weight apportioned to each will reflect their position in the planning process)."*	In addition to the consideration given to the design of the proposed development and reducing potential landscape and visual effects where practical, potential cumulative effects in conjunction with other operational and proposed wind developments has been considered in this chapter. A key focus of the design development has been the relationship of the proposed development with Strath Halladale and the nature of the views towards Kirkton Energy Park.
	Para 4.11	The following key aspects should be considered in the assessment: - *"National Parks, National Scenic Areas and mapped wild land areas;* - *Special Landscape Areas (including their citations);* - *The capacity of the local landscape character (as defined within a Landscape Character Assessment) to accommodate the proposal;* - *2km from residential buildings and boundaries of settlements (mapped, where relevant)* *Important public views (this includes considering impacts to popular viewpoints, the adopted road network, key and designated tourist routes, public footpaths, core paths and other recognised visitor locations)."*	All of the aspects listed here have been considered in this chapter, aside from: National Parks, which do not fall within the study area.
	Para 4.14	*"Where effects are unavoidable, appropriate mitigation will be required to overcome or otherwise minimise impacts."*	Mitigation has been addressed in **Chapters 2 and 3** as it is embedded within the design of the proposed development.

Policy/Guidance Document	Policy/Section	Description	Response
	Para 4.15	- The Council has visualisation standards for wind energy developments.	Refer to **Technical Appendix 7.2** which sets out the approach to visualisations and specifically how the approach complies with THC standards.
	Para 4.16 and 4.17	- This section defines criteria which set out key landscape and visual aspects that the Council will use as a framework and focus for assessing proposals	As is described in **Chapter 2** and the **Design and Access Statement**, the approach taken to consider the siting and design of Kirkton Energy Park included inputs from the landscape architects working on the proposed development. The proposed development has evolved to reduce potential landscape and visual effects where practical.
	Para 4.18 to 4.21	This section includes reference to Residential Visual Amenity (RVA) and specifically states that where larger scale developments are proposed within 2km of residential buildings and settlements, applicants will be expected to clearly demonstrate how potential impacts on amenity have been avoided or mitigated, including: "*All proposals should seek to avoid or mitigate impacts on landscape and visual amenity*."	A RVA Assessment has been carried out and has been included as **Technical Appendix 7.4**.

7.11 The Caithness and Sutherland Local Development Plan (CaSPlan) (THC, Adopted August 2018) also includes limited planning policy that is relevant to Kirkton Energy Park. The focus of this is on community and settlement related development and the Highland-wide Local Development Plan referred to in the table above is more relevant to the LVIA and the proposed development. The Council's vision for the CaSPlan area recognises the importance of high quality places and the need to celebrate and safeguard the environment and natural, built and cultural heritage. Section 2 places a focus on environment and heritage, which recognises the need to protect and enhance the natural environment. However, the key issues and the protection of the landscape is covered by the Highland-wide Local Development Plan.

Guidance

7.12 The Landscape Institute and the Institute of Environmental Management and Assessment (IEMA)'s 'The Guidelines for Landscape and Visual Impact Assessment' Third Edition (GLVIA3) (December 2013) is the key guidance that informs the methodology for the assessment of effects of the proposed development on landscape character and visual amenity.

7.13 NatureScot and THC have published a number of guidance documents that are of relevance to LVIA. NatureScot was formerly known as Scottish Natural Heritage (SNH) and most references relevant to the LVIA were published prior to the renaming of the organisation. For simplicity and consistency in naming the organisation, it is referred to as NatureScot throughout the LVIA. However, the full document references include NatureScot or SNH as appropriate.

7.14 In June 2015, NatureScot published Spatial Planning for Onshore Wind Turbines – Natural Heritage Considerations. This guidance document focuses on providing advice in developing spatial frameworks for wind energy developments. The guidance is aimed at planning authorities and whilst the document does not set out specific site location advice, or any new policy positions or technical requirements for applicants, it does highlight the importance of natural heritage considerations and provides links to existing policy and guidance documents. Specifically relevant to LVIA, the guidance includes advice on the use of Landscape Character Assessment, Landscape Capacity Studies, and Cumulative Impacts with reference to the specific NatureScot onshore wind farm guidance.

7.15 NatureScot has published 'Siting and Designing Wind Farms in the Landscape' (SNH, 2017) guidance. This, as the title describes, provides guidance on the siting and design of wind farms within the landscape, and also includes advice on assessing the landscape and visual effects of wind farms taking into consideration that this should be done as an iterative process with the design. This guidance was key to the design development stages of the proposed development.

7.16 THC has published 'Onshore Wind Energy Supplementary Guidance' (THC, November 2016) and the associated 'Addendum Supplementary Guidance: Part 2B, Landscape Sensitivity Appraisal: Black Isle, Surrounding Hills and Moray Firth Caithness' (THC, December 2017). Both these documents are directly relevant to the LVIA with the Onshore Wind Energy Supplementary Guidance providing advice on the siting and design of proposed wind energy development, and how this relates to key planning and environmental issues, including potential landscape and visual effects. As part of this advice, the guidance sets out 10 specific criteria in relation to landscape and visual effects, which are set out and discussed towards the end of this chapter (see **Table 7-13**). The Addendum Supplementary Guidance provides specific guidance on landscape and visual sensitivities in relation to part of the Study Area applicable to the LVIA for Kirkton Energy Park. Kirkton Energy Park lies on the western edge of area covered by this guidance and therefore does not cover the full extent of the LVIA Study Area.

7.17 In addition to those mentioned above, the methodology for the LVIA also considers the following best practice guidance (in order of most recent publication date first):

- Landscape Institute (May 2021) Assessing Landscape Value Outside National Designations, Technical Guidance Note 2/21;
- NatureScot (September 2020) Assessing Impacts on Wild Land Areas: Technical Guidance;

- Landscape Institute (September 2019), Visual Representation of Development Proposals, Technical Guidance Note 06/19;
- Landscape Institute (15 March 2019) Residential Visual Amenity, Technical Guidance Note 2/19;
- SNH (February 2017), Visual Representation of Wind Farms, Version 2.2;
- SNH (January 2017), Assessing the Impact on Wild Land – Technical Note Consultation Draft;
- THC (July 2016) Visualisation Standards for Wind Energy Developments;
- SNH (September 2015), Guidance on Constructed tracks in the Scottish Uplands;
- SNH (September 2019), Good Practice During Wind Farm Construction;
- SNH (March 2012), Assessing the Cumulative Impact of Onshore Wind Energy developments;
- Department of Landscape University of Sheffield and Land Use Consultants (2002), Landscape Character Assessment Guidance for England and Scotland, The Countryside Agency and Scottish Natural Heritage.
- SNH and the Countryside Agency, (2002) Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity; and
- SNH (2002), Policy Statement No.02/03: Wildness in Scotland's Countryside.

APPROACH AND METHOD

7.18 The following section outlines the approach and method, with full detail and assessment criteria provided in **Technical Appendix 7.1: LVIA Methodology**. The methodology applied in the preparation of the Zones of Theoretical Visibility (ZTV) and visualisations is provided in **Technical Appendix 7.2: Visualisation Methodology**.

7.19 The LVIA has been carried out following GLVIA3 (Landscape Institute and IEMA, 2013). Within the broad scope of this method, the LVIA has focused upon potentially significant effects from the proposed development in addition to the baseline conditions that include the operational and consented Wind Farms in the landscape surrounding the site.

7.20 Key references used by the LVIA are listed in the References section at the end of this chapter.

Consultation

7.21 A request for a Scoping Opinion was submitted to the Scottish Government Energy Consents Unit (ECU) and a Scoping Report was submitted in March 2021, together with an addendum reflecting changes to the proposed development in June 2021. In addition, pre-application advice consultation was undertaken with THC prior to the submission of the Scoping Report. The ECU compiled the final consultation responses from key consultees including NatureScot and THC. A summary of the Scoping Opinion is provided in **Chapter 6**. Key responses provided by consultees

relevant to this LVIA assessment is provided in **Table 7-3**. Further consultation with NatureScot and THC has taken place in October/November 2021 to agree the viewpoints included in the LVIA and the approach to the Wild Land Assessment, and again with THC in April/May 2022 in relation to the wind farms included in the cumulative assessment.

7.22 **Table 7-3** presents a summary of the consultation with NatureScot and THC. Post Scoping consultation is presented in **Table 7-4**. Further detail of the consultation undertaken throughout the project are presented in the **Chapter 6**.

Table 7-3: EIA Scoping Comments

Consultee	Consultee Comments	Response to Consultee	Where Addressed
THC	The Council expects the EIAR to consider the landscape and visual impact of the development. The Council makes a distinction between the two. While not mutually exclusive, these elements require separate assessment and therefore presentation of visual material in different ways. It is the Council's position that it is not possible to use panoramic images for the purposes of visual impact assessment. The Council, while not precluding the use of panoramic images, require single frame images with different focal lengths taken with a 35mm format full frame sensor camera – not an 'equivalent.' The focal lengths required are 50mm and 75mm. The former gives an indication of field of view and the latter best represents the scale and distance in the landscape i.e. a more realistic impression of what we see from the viewpoint. These images should form part of the EIAR and not be separate from it. Photomontages should follow the Council's Visualisation Standards.	This chapter presents the findings of a landscape and visual impact assessment (LVIA). This makes a distinction between predicted landscape and visual effects of the proposed development. The requirements in relation to viewpoint photography and the presentation of this, are understood and have been addressed in visualisations prepared as part of the LVIA.	EIAR **Chapter 7: Landscape and Visual**. Associated TAs, and Figures.
	Separate volumes of visualisations should be prepared to both Highland Council Standards and NatureScot guidance. These should be provided in hard copy. It would be beneficial for THC's volume to be provided in a A3 ring bound folder for ease of use. The use of monochrome for specific viewpoints is useful where there are a number of different wind farms in the view. We are happy to provide advice on this matter going forward. All existing turbines should be re-rendered even if they appear to be facing the viewer in the photograph to ensure consistency.	This is understood and separate volumes of visualisations have been prepared as part of the EIA Report.	**TA 7.4**

Consultee	Consultee Comments	Response to Consultee	Where Addressed
	This assessment should include the expected impact of on-site borrow pits and access roads, despite the fact that the principal structures will be a primary concern. All elements of a development are important to consider within any EIAR.	This is understood and has been addressed as part of the LVIA.	EIAR **Chapter 7: Landscape and Visual**.
	The study area should be a minimum of 40km from the outer most turbines and the assessment of landscape and visual impact should be completed in full across the entire study area. THC do not consider it to be acceptable to screen out viewpoints for a full assessment based upon distance. The cumulative study area should extend beyond this to 60km.	The study area for the LVIA is 40km and the LVIA considers receptors across this study area. Viewpoints have been agreed with THC (see Table 7-3 below) and have not been screened out purely based on distance. Cumulative wind farms included in the LVIA have been discussed and agreed with THC in separate exchanges (see Table 7-3 below).	EIAR **Chapter 7: Landscape and Visual**.
	The finalised list of Viewpoints (VP) and wireframes for the assessment of effects of a proposed development must be agreed in advance of preparation of any visuals with THC.	Viewpoints to be included in the LVIA have been agreed with THC through a meeting (01/09/21) and subsequent email exchange (concluded via email 02/10/21).	EIAR **Chapter 7: Landscape and Visual** – see **Table 7-4** below.
	The purpose of the selected and agreed viewpoints shall be clearly identified and stated in the supporting information. For example, it should be clear that the VP has been chosen for landscape assessment, or visual impact assessment, or cumulative assessment, or sequential assessment, or to show a representative view or for assessment of impact on designated sites, communities or individual properties.	The purpose of each viewpoint and the relevant receptor(s) is described.	**TA 7.3**
	Further the LVIA Chapter of the EIAR should clearly set out the methodology including: • Definitions of each point on the scale of magnitude of change which is used by the applicant in reaching a conclusion on the magnitude of change; • Definitions of each point on the scale of sensitivity of receptor which is used by the applicant in reaching a conclusion on the sensitivity of receptor;	This is set out in the LVIA methodology technical appendix.	**TA 7.1**

Consultee	Consultee Comments	Response to Consultee	Where Addressed
	• The threshold to which the applicant considers a significant effect is reached; and • A clear matrix approach supported by descriptive text setting out how the applicant reaches their conclusion of effect on landscape character, designated landscapes, visual receptors and residential amenity.		
	When assessing the impact on recreational routes please ensure that all core paths, the national cycle network, long distance trails are assessed. It should be noted that these routes are used by a range of receptors.	These receptors are included in the LVIA.	Sections 7.159 – 7.187.
	The development will further extend the number of proposals of this type in the surrounding area, necessitating appropriate cumulative impact. It is considered that cumulative impact will be a significant material consideration in the final determination of any future application. The Study Area for a cumulative LVIA (CLVIA) should extend to a minimum of 60km.	The proposed development would be located in the context of existing and proposed wind farms located on the north coast of mainland Scotland. The key cumulative effects of the proposed development are likely to relate to the contribution it would make to this context. Therefore, it is considered to be appropriate and proportionate, and focus the LVIA on the likely significant effects, to include cumulative developments within the 40km study area. Cumulative wind farms included in the LVIA have been discussed with THC in separate exchanges.	EIAR **Chapter 7: Landscape and Visual**. **Table 7-4** below
	Given the cumulative impact of renewable energy in this area it is expected that the applicant should present images for presentation within the Panoramic Digital Viewer deployed by the Council – see visualisation standards document.	Images can be prepared for presentation in the Panoramic Digital Viewer.	Provision of images for inclusion in Panoramic Digital Viewer if required.
	We expect an assessment of the proposal against the criterion set out in the Council's OWESG to be included within the LVIA chapter of the EIAR.	The LVIA includes assessment of the proposed development against the criteria set out THC's OWESG.	**Table 7-13**
	As the turbine heights are less than 150m to blade tip, aviation lighting is not required by	Aviation lighting confirmed not to be required as the proposed	EIAR **Chapter 3: Description of Development**.

Consultee	Consultee Comments	Response to Consultee	Where Addressed
	default but may be required by consultees with an aviation interest.	turbines would be under 150m to blade tip.	
	In relation to Landscape, there are a number of matters which require to be updated within the scoping report. This includes terminology related to Wild Land Areas, and the Landscape Character Assessment should be the 2019 NatureScot assessment. Further, in relation to impacts on areas of Wild Land (as identified by NatureScot in 2014), an assessment on the impacts of the qualities of Wild Land requires to be undertaken. The methodology and scope for this assessment should be agreed with THC and NatureScot. Further an assessment of the proposals impact on the special qualities of the Special Landscape Areas in vicinity of the site must be undertaken. Given the scale of the proposals there may be visibility of the scheme within National Scenic Areas. Assessments of the proposal against impacts on these designations must be undertaken. It is noted that the Flow Country SLA is proposed to be scoped out of detailed assessment. On the basis of the separation distance and the influence of other closer wind farms to this designation. Whilst due to distance and the extent of theoretical visibility make it less likely that standalone 'solus' significant effects on this designation would occur, THC consider that detailed assessment be scoped in given the extent of potential cumulative effects to arise.	A document setting out the proposed approach the assessment of the potential effects of the proposed development on the East Halladale Flows Wild Land Area (WLA) was sent to NatureScot and THC. The WLA assessment was discussed with THC as part of the meeting and exchanges in relation the LVIA viewpoints. THC set out that it was more appropriate to agree the approach to WLA assessment with NatureScot. The proposed approach to the assessment of potential effects on the WLA was sent to NatureScot, and confirmation that the proposed approach is satisfactory was received (email 02/11/21). See **Table 7-4** below for further detail. The potential effects of the proposed development on Special Landscape Areas (SLA) within the study area forms part of the LVIA. The comments in relation to the Flow Country SLA have been noted and the potential effects on this SLA forms part of the LVIA. The only National Scenic Area (NSA) within the study area is the Kyle of Tongue NSA. NatureScot, in their response to the request for a Scoping Opinion, identified that the Kyle of Tongue NSA could be scoped out of further assessment "as effects are likely to be minimal and not significant on the landscape qualities".	Sections 7.84 – 7.91, and 7.94 – 7.109, and **TA 7.5**.
	The scope of the LVIA also proposed to exclude Gardens and Designated Landscapes, as well as	Comments acknowledged, no response is required.	-

Consultee	Consultee Comments	Response to Consultee	Where Addressed
	discrete areas within Landscape Character Types, where there is no theoretical visibility. This is not questioned. Of the listed Gardens and Designated Landscapes to be scoped out, this includes Castle of Mey (Barrowgill Castle) and due to the intervening distance of 41km, the Council agrees that this can also be scoped out of further assessment.		
NatureScot	We advise that the current proposal for 12 turbines at 149.9m to blade tip in this this location is likely to result in significant adverse effects on the qualities of the East Halladale Flows WLA and therefore may merit a NatureScot objection. We note that that the proposed turbines do not reach or exceed 150m tip height and will not therefore be subject to Civil Aviation Authority (CAA) regulations requiring visible aviation lighting. Should the turbines increase in height or visible lighting becomes a requirement of this application we would ask that NatureScot are consulted as this be likely to result in significant effects on the qualities of the East Halladale Flows WLA.	The comments are acknowledged. A landscape and visual impact assessment and assessment of potential effects on the East Halladale Flows Wild Land Area (WLA) has been prepared. It has been confirmed that aviation lighting would not be required as the proposed turbines are under 150m to blade tip.	Sections 7.88 – 7.91, and 7.101 – 7.109 and **TA 7.5**.
	We consider that in order to provide a useful and proportionate assessment the effects on the Kyle of Tongue NSA can at this stage be scoped out for further assessment.	Comments acknowledged, no response is required.	-
	The East Halladale Flows Wild Land Area (WLA) lies approximately 1.3km to the south east of the site and we are pleased to note that the LVIA will provide an assessment of the effects of the proposed development on the East Halladale Flows WLA as set out in NatureScot's guidance (2020). We strongly encourage early discussion with us on the scope of the wild land assessment including which wild land qualities to scope in for further assessment.	A document setting out the proposed approach the assessment of the potential effects of the proposed development on the East Halladale Flows Wild Land Area (WLA) was sent to NatureScot and THC. The WLA assessment was discussed with THC as part of the meeting/exchanges in relation the LVIA viewpoints. THC set out that it was more appropriate to agree the approach to WLA assessment with NatureScot. The proposed approach to the assessment of potential effects of the WLA assessment has been sent to	Sections 7.88 – 7.91, and 7.101 – 7.109, and **TA 7.5**.

Consultee	Consultee Comments	Response to Consultee	Where Addressed
		NatureScot, and confirmation that the proposed approach is satisfactory has been received (email 02/11/21).	
	The ZTV (Figure 6) is poorly presented (with both the ZTV being shaded yellow and the WLA being shaded yellow) and it is very difficult for us to determine with any certainty the degree of visibility across WLAs. In order for us to provide accurate and helpful advice, a basemap should be provided, ideally with a 1:50k OS backdrop, at a resolution where we can identify key features and locations.	Comment acknowledged. A revised ZTV figure formed part of the information was provided to NatureScot regarding the approach to the WLA assessment. The presentation used for the scoping report will be avoided for the EIA Report.	EIAR **Chapter 7** Figures.
	There is currently only one Viewpoint within WLA 39 at Beinn Ratha. Whilst we consider this is adequate for the visual assessment, in order to undertake a thorough wild land assessment additional assessment points within the WLA will be required	Additional viewpoints have been proposed as part of the document setting out the approach the assessment of the potential effects of the proposed development on the East Halladale Flows WLA. Four viewpoints, specific to the WLA assessment (including the location at Beinn Ratha), are located within the East Halladale Flows WLA. The proposed approach to the assessment of potential effects of the WLA assessment has been sent to NatureScot, and confirmation that the proposed approach is satisfactory was received (email 02/11/21).	**TA 7.5**.
	Given the high interest for wind energy development in the area surrounding this proposal we expect the cumulative assessment to be a key aspect of the LVIA. The capacity of this landscape to accommodate the proposed development in its current form and how it would sit in the context of the existing pattern of development will be an area we expect the LVIA to consider in detail.	This is understood and will be addressed as part of the LVIA.	Throughout this chapter.
	We note that those effects falling outside the major or major/moderate categories for magnitude of effect are generally considered to	It is acknowledged that landscape and visual effects that are considered to be moderate could	**TA 7.1**

Consultee	Consultee Comments	Response to Consultee	Where Addressed
	be not significant. We consider that this is a high bar and that there are instances where effects identified as moderate may be considered to be significant, allowing for professional judgement. Without seeing the criteria for each of the categories it is not possibly to make further comment on this aspect, however it may be that some differences between the conclusions of the LVIA and our own advice in the final statement of significant effects may occur.	be significant and the methodology used in the LVIA allow for this judgement to be made.	

Table 7-4: Post Scoping Consultation

Consultee	Theme	Consultee Response	Response to Consultee	Where Addressed
NatureScot	A document setting out the proposed approach the assessment of the potential effects of the proposed development on the East Halladale Flows Wild Land Area (WLA), together with the proposed LVIA viewpoints, was sent to NatureScot on 07/10/21.	Extract from email dated 02/11/21 from NatureScot: *"Overall we are satisfied with what has been proposed for the wild land assessment. We are in agreement that the study area should comprise the whole of the East Halladale Flows WLA 39. Table 1 sets out the wild land qualities to be scoped in for further assessment. We are in agreement that all four of the qualities for WLA39 have the potential to be significantly affected and should be assessed further. We are also content with the selection of the four assessment points within the WLA, these being; Loch na Caorach, Cnoc Bad Mhairtein, Beinn Ratha and Beinn nam Bad Mor."* No specific response on the wider LVIA viewpoints. Based on telephone discussion NatureScot defer to THC in relation to the LVIA viewpoints.	Comments acknowledged, no response is required.	Sections 7.88 – 7.91, and 7.101 – 7.109, and **TA 7.5**
THC	A meeting took place (01/09/21) between THC and SLR in relation to the viewpoint selection for the LVIA. This was followed up with an email	Emails have been received from THC (18/10/21 and 20/10/21) confirming that the viewpoints presented capture the discussions during the meeting i.e. the scope of the viewpoints to be included in the LVIA are agreed.	Comments acknowledged, no response is required.	Viewpoint Assessment: Sections 7.114 to 7.118 and **TA 7.3**

Consultee	Theme	Consultee Response	Response to Consultee	Where Addressed
	(04/10/21) describing the points discussed and the viewpoints to be included in the LVIA, together with drawings that illustrate the locations. A document setting out the proposed approach the assessment of the potential effects of the proposed development on the East Halladale Flows Wild Land Area (WLA), together with the proposed LVIA viewpoints, was sent to NatureScot on 07/10/21.	The email also confirmed that THC would defer to NatureScot in relation to WLA assessment.		WLA Assessment: Sections 7.88 – 7.91, and 7.101 – 7.109, and TA 7.5
	Email exchanges took place in April and May 2022 between THC and SLR in relation to the cumulative wind farms included in the LVIA and the proposed peatland restoration. SLR provided a drawing setting out the proposed cumulative wind farm that would be included. SLR also described that the area of commercial forestry in the northern part of the site would be felled partly for ecological/ornithological benefit, including the creation of peatland habitat. SLR described that this forestry would be removed in the photomontages where relevant.	THC expressed that they would expect the details of cumulative wind farms included in the LVIA to be as up to date as possible. THC suggested the following updates: • Golticlay is approved • Forss Extension (operational) and Forss Extension 3 (in planning) are mixed up • Tormasdale is in planning • If Lochend Ext is to be shown, Lochend, Slickly and Stroupster should also be shown as these all form part of a cluster • Consider the inclusion of the Sutherland Spacehub.	The cumulative wind farms included in the LVIA have been checked and reviewed up to 08/22. The Sutherland Spacehub has been considered in a concise way in the LVIA due to its relative distance (over 20km) from the proposed development.	Throughout this chapter.

Assessment Study Area

7.23 The LVIA study area extends to 40km from the outermost turbines of the proposed development. This reflects NatureScot recommendations for the production of Zone of Theoretical Visibility (ZTV) maps for wind turbines between 131 – 150m to tip height (SNH, 2017), as the proposed turbines would be 149.9m to tip height.

7.24 Within the LVIA study area, initial assessment, including the production and review of ZTV maps, identified that the terrestrial areas relating to the ZTV are concentrated within approximately 20km of Kirkton Energy Park. For this reason, the assessment of effects on landscape character and visual amenity has focused on areas within 20km, although receptors beyond 20km have been considered where relevant.

7.25 Following NatureScot guidance (SNH, 2012), initial consideration of potential wind farms to include within the cumulative LVIA extended to 60km from the proposed development. Following a review of the cumulative site data and mapping, the study area was reduced down to focus on the existing and proposed wind farms shown in **Figure 7.3a** and **7.3b**. This is to ensure the LVIA concentrates on potentially significant cumulative effects with other wind turbines.

Assessment Process, Criteria and Definitions

7.26 The aim of this assessment is to identify, predict and evaluate potential effects on the landscape and visual resource of the study area. LVIA separates landscape and visual effects: landscape effects concerning physical aspects of an area, landscape character and how the landscape is experienced; and visual effects concerning the nature of views obtained by viewers (known as 'visual receptors'), such as residents, visitors, motorists, walkers etc.

7.27 LVIA considers in a methodical manner the sensitivity of the baseline resource and the magnitude of predicted change from the proposed development on this, and then makes a judgement as to whether or not the resulting effects would be significant.

7.28 The visual impact assessment takes account of a range of visual receptors that includes residents, from the agreed representative viewpoints. Nonetheless, it should be noted that, following GLVIA3, it does not include site specific assessment of the landscape and visual amenity and effects at individual residences: this assessment is included in **Technical Appendix 7.4: Residential Visual Amenity Assessment**.

7.29 GLVIA3 (Landscape Institute and IEMA, 2013) requires definition of the criteria determining various levels of resource sensitivity, magnitude of change and significance, that are pre-defined to ensure consistency and transparency. For this LVIA, these criteria are described in **Technical Appendix 7.1**.

7.30 In addition to assessing separate landscape and visual effects, it is important to consider how these effects would be experienced together and by different people in different ways for different purposes. Consequently, this LVIA includes assessment along key routes within the study area and from key settlements as described (within the visual impact assessment section of this chapter). **Technical Appendix 7.6** provides a sequential assessment of key routes within the study area.

7.31 The LVIA distinguishes between:

- LVIA - Assessment of the proposed development in addition to the baseline conditions which may include existing developments, including existing and consented wind farms, with which the proposed development may have effects (recognising that these are either existing or highly likely to be constructed); and

- Cumulative LVIA – Assessment of the proposed development in addition to the baseline conditions (as above) plus possible future cumulative effects, and proposed developments for which an application has been submitted (recognising that these schemes are possible, but not certain).

7.32 Within this LVIA, operational wind farms have been considered as part of the baseline of the main landscape and visual assessments and therefore also part of the baseline of the cumulative assessment.

THE PROPOSED DEVELOPMENT

7.33 The proposed development is described in full in **Chapter 3: Description of Development**. The following aspects are particularly relevant to the LVIA:

- The proposed development would comprise 11 wind turbines which have been assessed at up to 149.9m to blade tip height (83.4m to hub/nacelle and rotor diameter of 133m);

- The wind turbines would be 3-bladed and would be painted a semi-matt pale grey colour and a finish to be agreed with THC;

- A network of access tracks to the proposed wind turbines would be constructed, where possible these would follow existing tracks (approximately 2km), which would be upgraded, together new sections of track (approximately 5.5km). The location and extent of the proposed tracks are shown on **Figure 3.1**; and

- A crane hardstanding pad/laydown area would be built adjacent to each wind turbine and would have a footprint of approximately 35m by 35m, with an area for additional crane pads that is 85m x 5m. These areas would remain in situ for the duration of the operational phase of the proposed development;

- Two borrow pit search areas are proposed (shown on **Figures 3.11a** and **3.11b**), covering an area of approximately 32,000m^2, both borrow pits would be restored following completion of the construction phase;

- One onsite substation which would accommodate 33kV Switchgear to collect electricity from different parts of the site. The substation compound, which will incorporate up to 20MW of battery storage, would have an area of 75m x 100m and would include a control and metering building (approximately 14m x 23 m and 7m high) and battery storage units (approximately 17m x 8m, x 4m high) (shown on **Figure 3.9**);

- A temporary construction compound approximately 125m x 50m (shown on **Figure 3.12**);

- An abnormal load turning area would be required (for the construction phase and operational life of the proposed development) along the A836 to the west of Kirkton Farm road, with two options being considered. One of these options is within Melvich and the second is between Melvich and Strathy (the locations of both are shown on **Figure 3.1**);

- Removal of commercial forestry, with this land being restored to peat habitat as part of the of the proposed development, and other broadleaved woodland loss which would be replanted within the site (see **Technical Appendix 3.2: Forestry**).

Mitigation

7.34 Mitigation of the predicted landscape and visual effects of the proposed development and the layout of Kirkton Energy Park was informed by a number of landscape and visual considerations as an integral part of the design development process. This is described in detail in **Chapter 2: Site Description and Design Evolution**.

7.35 The key embedded mitigation relates to the layout of the proposed wind turbines. A continual process of layout review took place during the site design process, with this being described in detail in **Chapter 2** of this EIA Report. The final layout places the 11 proposed wind turbines as far west as possible, whilst maintaining an appropriate separation distance with the nearby SPA/SSSI/SAC designations. The turbines would be positioned in a single, slightly arcing, north-south orientated row with a regular spacing between each turbine. The elevation of the turbines has been kept as consistent as possible along the line.

7.36 Adopting this approach to the layout simplifies the form and appearance of the proposed turbines in relation to key design viewpoints selected in the area surrounding the site. There are relatively few locations where the turbines would be seen from the north and south, where the turbines would be seen stacked or overlapping. However, the turbines would be seen in direct and oblique views from locations in the surrounding landscape, with key considerations being receptors in Strath Halladale to the east and along the coastline to the north. The arrangement of the turbines in a single line follows the pattern of the local landform, and the north – south orientation of Strath Halladale. The consistent spacing and elevation of the turbines simplifies the appearance of the proposed development and avoids the clustering and stacking of turbines associated with earlier design iterations. Where possible the turbines have also been positioned away from the slopes and landform adjacent to the eastern side of Strath Halladale to provide more separation from the valley landform and settled areas.

7.37 Particular consideration was also given to the positioning of the proposed substation compound, with this being located within the northern part of the site on the lower western side of Strath Halladale. This would be a less prominent location, using existing landform and vegetation to provide visual screening. It also would link this element of the proposed development with the existing pattern of built development, which is concentrated towards the floor of the Strath. There could also be potential to alter the ground levels of the land that the substation compound, and use a combination of cut and fill and low bunds to screen the proposed structures.

7.38 Secondary landscape and visual mitigation measures would be adopted where possible to reduce further any predicted adverse landscape and visual effects, including the restoration of vegetation adjacent to the proposed wind turbines, tracks and substation compound. On completion of the

construction phase, the borrow pits would be restored as described in **Technical Appendix 3.1: Outline Construction Environment Management Plan (CEMP)** (the Outline CEMP would also apply to the proposed development).

LANDSCAPE ASSESSMENT

Introduction

7.39 This section sets out the baseline conditions and predicted effects of the proposed development on the landscape resource of the study area.

Landscape Context

7.40 The main part of the Kirkton Energy Park site is located in the Sweeping Moorland and Flows to the south of Melvich, close to the north coast of Scotland. It comprises areas of blanket bog, together with heath, grassland, commercial forestry and broad-leaved woodland. The A836 (also forming part of the North Coast 500 route) lies to the north of the site and the A897 within Strath Halladale lies to the east.

7.41 In addition, there are two smaller area of land that form part of the proposed development, one of which would be used as a turning area for abnormal loads being delivered during construction and maintenance. The more easterly of these areas is located in the western part of Melvich, in the Coastal Crofts and Small Farms landscape with the more westerly potential abnormal load turning area being located in the Sweeping Moorland and Flows.

7.42 The Sweeping Moorland and Flows landscape within which Kirkton Energy Park would be located occurs extensively across Caithness and east Sutherland. This forms a backdrop to the smaller scale and diverse coastal landscapes that lie to the north. The site also lies on the elevated landform to the west of Strath Halladale and overlooks this smaller scale, more intimate landscape. The elevation of the site varies between 20m AOD at the access point south of Kirkton Farm, to approximately 160m AOD on the north west edge of the site. The elevation of the proposed wind turbines ranges from approximately 90m AOD to 120m AOD.

7.43 Within the wider area to the south east, south and south west, the landscape predominately comprises the extensive Sweeping Moorland and Flows. Large areas of commercial forestry are located throughout the moorland, which contrasts in colour and texture with the moorland. The moorland is also interrupted by lower lying straths that cut into the fringes of the moorland. A number of prominent summits rise above the Sweeping Moorland and Flows, particularly to the south and west, including Morven (706m AOD); Ben Griam Beg (580m AOD); Ben Griam Mòr (590m AOD); Ben Loyal (765m AOD); and Ben Hope (927m AOD). The coastline to the north and north west comprises a combination of high cliffs, prominent headlands, such as Strathy Point and Dunnet Head, and sheltered bays. Set behind the coastal edge are more settled, smaller scale landscapes comprising coastal crofts and small settlements. To the east, the landscape transitions to farmed lowland plain associated with north east Caithness.

7.44 The site location and boundary, together with the extent of the study are, are shown on **Figure 7.1a** Site Context and Topography and the Landscape Character Types throughout the Study Area are

shown on **Figure 7.1c**. A description of the key characteristics of the landscape character types within the study area is provided in **Table 7-11**.

Landscape Effects During Construction

7.45 The construction phase of the development would last approximately 18 months as outlined in **Chapter 3: Description of Development**. During construction the following activities and elements have the potential to cause an effect on the landscape fabric within the application site, as well as the landscape character and/or visual amenity of the study area.

- removal of 87.75ha of commercial forestry (net area of 70.75ha bearing trees) within the northern part of site as part of the peatland improvement and habitat management proposals, together with the removal of 3.58ha of broadleaved woodland (which would be subject to compensatory planting) to accommodate new tracks and turbine locations as shown on the Wind Farm Felling Plan (**Figure 3.2.4**);
- creation of a temporary construction compound (125m x 50m);
- construction of approximately 7.5km of access tracks (combination of new and upgraded tracks), with an average running width of 5m;
- creation of up to two borrow pits;
- excavation and construction of reinforced concrete foundations for the turbines;
- excavation and construction of the crane hardstandings adjacent to each turbine location;
- construction of a substation and control building (approximately 14m x 23m and 7m high) within a compound (75m x 100m) also incorporating 20MW of battery storage units (expected to be within structures which would be approximately 17m x 8m and 4m high);
- HGV and Abnormal load deliveries to site and movement of vehicles on the site;
- Erection of 11 turbines (maximum 149.9m blade tip height);
- Reinstatement works, including removal of temporary construction compound and accommodation; and
- The construction of an abnormal load turning area along the A836, either adjacent to Melvich (to the north of the A836) or to the west of the village.

7.46 The proposed locations and details of these elements are shown on **Figures 3.1 – 3.12**. The location and management of these construction elements have been carefully considered to reduce environmental effects wherever possible as described below. In addition, where relevant, works would be undertaken in accordance with SNH's Good Practice During Wind Farm Construction (September 2015) guidance. Reference should also be made to the proposed development's Outline Construction and Environmental Management Plan (CEMP) (**Technical Appendix 3.1**).

7.47 While construction activities would have landscape and visual effects within the LVIA study area, it is judged that these would not typically be substantially greater than the effects of the proposed wind farm during operation. This is primarily because of: the relatively limited extent of the construction activities; the short duration of the construction period; and the reinstatement of working areas. For these reasons, the assessment of construction stage effects concentrates on analysis of change and impacts on the landscape fabric of the site.

7.48 The site does not lie within any landscape designations. **Table 7-5** below provides an evaluation of the value of the landscape of the site, which is based on the Landscape Institute's guidance: Assessing Landscape Value Outside National Designations (Landscape Institute, May 2021, Technical Guidance Note 2/21).

Table 7-5: Evaluation of the Value of the Landscape of the Site and its Immediate Context

Factor	Notes
Natural Heritage	The wind farm site largely comprises a combination of blanket bog, heath, grassland, broad-leaved woodland and commercial forestry. It is predominately located outside any ecological designations, lying adjacent to, and to the east of, an area designated for its ecological value: the West Halladale Site of Special Scientific Interest (SSSI), Caithness and Sutherland Peatlands Special Protection Area (SPA) and Special Area of Conservation (SAC). All of these ecological designations overlap and cover an identical extent in the vicinity of the site). These ecological designations extend into a small part of the commercial forestry in the northern part of the site. (See **Figure 2.1**) The two potential turning areas comprise grassland. Neither of these areas are located within or close to any ecological designations. However, the turning area on the edge of Melvich is within the Farr Bay, Strathy and Portskerra Special Landscape Area (SLA).
Cultural Heritage	There are no designated heritage assets or Gardens and Designed Landscapes within the proposed development site or its immediate context. The closest listed buildings are within Strath Halladale (south of Achiemore) approximately 1.4km to the south east of the closest wind turbine. There are no designated heritage assets or Gardens and Designed Landscapes within the potential abnormal load turning areas. The more westerly of the turning areas is located to the south of two Scheduled Monuments.
Landscape Condition	The site comprises blanket bog, heath, grassland, commercial forestry and broad-leaved woodland that forms part of the Sweeping Moorland and Flows to the west of Strath Halladale. The land is typically unenclosed although there is post and wire fencing in places, particularly around the planted areas of broad-leaved woodland. The majority of the site is grazed by cattle and sheep, with evidence of deer grazing in places. There are no particularly distinctive landscape features or elements within the site. The abnormal load turning areas both comprise agricultural land used for pasture/grassland. The field at Melvich identified for the potential turning area is predominately enclosed by post and wire fences, with occasional sections of stone walls. The field to the west of Melvich is enclosed by stone walls, although sections of this are in a poor condition and post and wire fences lie inside the stone walls. The abnormal load turning areas are positioned on lower lying ground and are not positioned on skylines, although activities within these areas of land could extend above the skyline.

Factor	Notes
Associations	There are no known cultural associations with the wind farm site and turning areas or their immediate context.
Distinctiveness	There are no particularly distinctive characteristics or elements within or immediately surrounding the wind farm site and turning areas.
Recreational	There are no Core Paths within the site (including the abnormal load turning areas). A Core Path (Ref SU19.03) is routed through Strath Halladale between Kirkton and Bighouse to the east of the site. There are no promoted recreational routes through the site and no evidence of active or regular informal recreational use. Kirkton Farm promote buggy tours within their land. The site and surrounding area can be accessed for informal recreation.
Perceptual (Scenic)	The site and immediate context comprises countryside typical of the locality. The wind farm site forms a small part of the extensive Sweeping Moorland and Flows Landscape Character Type (LCT). The key scenic qualities of this LCT relate to the overall scale and openness of landscape. The northern part of the site contains a relatively small area of established commercial forestry, which is a noted detracting element in the landscape. The landscape to the east comprises Strath Halladale (Strath – Caithness and Sutherland LCT), which is a more intimate, small scale landscape. The more enclosed character of the Strath draws attention to the landform and other features within the Strath, such as farms and residential properties, the River Halladale and areas of woodland. These features form scale references that contribute to the overall perception of the smaller scale of this landscape which contrasts with the adjacent Sweeping Moorland and Flows. The more easterly of the two potential abnormal load turning areas is within Melvich. It is within an occurrence of the Coastal Crofts and Small Farms LCT and the Farr Bay, Strathy and Portskerra Special Landscape Area, where there are attractive views to the coastline. The more western abnormal load turning area is within the Sweeping Moorland and Flows LCT, but comprises a field of semi improved grassland, used for rough pasture and enclosed by stone walls.
Perceptual (Wildness and Tranquillity)	The wind farm site is relatively remote: it is not settled and contains no roads or other routes for public access. There are existing tracks across the site which are used by Kirton Farm to access the land for grazing livestock. Parts of the Sweeping Moorland and Flows have been designated as Wild Land Areas, including the East Halladale area located to the east of Strath Halladale. The settled character of Strath Halladale, commercial forestry and agricultural use of the site, reduce the perception of wildness in the adjacent landscape to the east of the site. However, it is generally a tranquil landscape, with few aspects that adversely affect tranquillity. These comprise the A897 with associated limited traffic, which follows Strath Halladale, the timber processing site at Upper Bighouse and Connagill Substation. There is limited perception of wildness and tranquillity in relation to the two abnormal load turning areas. These are both located relatively close to the A836, with the easterly of the turning areas also being located within Melvich.
Functional	The wind farm site functions most strongly as a fringe part of the Sweeping Moorland and Flows. It forms part of a transitional landscape between the peatland to the west and the more settled, farmed Strath to the east.

Factor	Notes
	The eastern turning area is closely associated with Melvich and forms part of the enclosed agricultural landscape close to the coastline. It comprises a field used for pasture and lies adjacent to the established settlement pattern. The western turning area also forms part of the enclosed agricultural land close to the coastline despite lying within the Sweeping Moorland and Flows LCT.

7.49 Overall, the site of the proposed development, including the wind farm site and turning areas, is of Medium value. The wind farm site is not covered by any landscape designations, and is broadly typical of the local landscape, comprising land on the fringes of the Sweeping Moorland and Flows LCT. The eastern turning area lies within a locally designated landscape, with this land forming part of the Farr Bay, Strathy and Portskerra SLA. The site makes a contribution to local recreation, as it can be accessed for informal recreation and farm buggy tours, but there are no Core Paths within the site boundary.

7.50 Landscape susceptibility is defined in paragraph 5.40 of GLVIA3 as follows:

'*This means the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies*.'

7.51 **Table 7-6** provides and evaluation of the susceptibility of the site and its immediate context to the nature of the proposed development.

Table 7-6: Evaluation of Susceptibility of the Site and its Immediate Context

Factor	Notes
Landform	Overall there would be limited alteration to the landform of the site. There would be localised changes around each turbine and associated with the access track. The borrow pits would also result in localised landform change. There would also be levelling required at the substation compound to accommodate the proposed structures. In the overall context of the site and the immediate surroundings these changes would be limited and the restoration works following the construction would aid the integration of landform changes. The land within the abnormal load turning areas generally slopes gently with relatively limited topographic variation across the fields.
Skylines	The site comprises the western slopes above Strath Halladale and essentially forms the horizon to the west of the Strath. This skyline is predominately formed by the horizontal moorland ridge, although the commercial forestry in the northern part of the site forms part of the skyline. The wind turbines would be positioned along the ridge, extending prominently above the skyline.

Land cover	The land cover comprises blanket bog, heath, grassland, broad-leaved woodland and commercial forestry. The footprint of the proposed development would be small in relation to the site area and it would be positioned within the baseline landscape pattern, and the field boundaries and underlying land cover would be retained. The removal of the commercial forestry and restoration of the peatland would result in this part of the site reverting to a land cover that is consistent with the surrounding landscape character. Areas disturbed during the construction phase adjacent to fixed elements, would be restored to be consistent with the adjacent land. The proposed development would also be reversible following the operational phase, allowing the land to revert to being comparable with the current land cover following the decommissioning of Kirkton Energy Park. The abnormal load turning areas comprise grassland/pasture enclosed by stone walls and post and wire fences.
Enclosure	The site has a low level of enclosure. It comprises an open hill side above Strath Halladale and there is a high level of intervisibility both within the site and its immediate context. The abnormal load turning areas are also relatively open with views to and from the immediate context. The turning area at Melvich is more prominent at a local level due to its position adjacent to the existing settlement pattern and potential visibility from the A836.
Human influence	The site comprises land used for agriculture (grazing livestock). Parts of the site comprise blanket bog, which is grazed along with the more improved areas of grassland in the adjacent Strath. There are tracks within part of the site to facilitate vehicle access. An established area of commercial forestry is located in the northern part of the site. The abnormal load turning areas are used as grassland for grazing livestock. They lie adjacent to, or close to the A836 and local road network, and also close to the local settlement pattern.
Settlement pattern	No settlements would be affected by direct physical impacts. There would be visual impacts on parts of Melvich, Portskerra and other scattered settlement along Strath Halladale.
Aesthetic and perceptual aspects	Kirkton Energy Park is positioned within a peaceful rural landscape, with limited settlement in the local context. The site has a clear topographic relationship with Strath Halladale, transitioning to the blanket bog to the west. It is an attractive landscape although with no unique or defining features. The abnormal load turning areas are also located within a rural landscape, although their position relative to the A836 and local settlement pattern results in a greater level of activity and reduced tranquillity.

7.52 The level of susceptibility of the landscape of the site to the proposed development is considered to be Medium.

7.53 The overall level of sensitivity of the site and its immediate surroundings, in the context of its susceptibility and value, is considered to be Medium.

Magnitude of Change and Effect upon the Landscape of the Site

7.54 All ground disturbances would be confined, as far as practicable, to the site compound, construction access tracks, borrow pits, laydown area, turbine base areas, and routes for underground cables. Working widths utilised during construction operations would be restricted and carefully monitored.

7.55 Forestry would be removed as described in **Technical Appendix 3.2**. This would result in change to the baseline landscape. However, this is in the context of the forestry comprising a commercial crop which would be harvested in the future notwithstanding the proposed wind farm. The

removal of the forestry and restoration to peatland would comprise a positive change in the local landscape and would be consistent with the dominant surrounding landscape character. There are also areas of young native woodland within the site, with a small area being affected by the proposed development. Any loss of native woodland would be subject to compensatory planting.

7.56 The main access route to the turbines would utilise the existing farm access tracks where possible, with these widened a part of the proposed development. Site access tracks would be constructed to a minimum running width of 5m with widening on bends as necessary. All tracks would be un-metalled and constructed from locally derived or locally imported stone. The edges of the entire new track would be reinstated using materials excavated, retained and stored onsite during the construction phase, in accordance with the Outline CEMP (**Technical Appendix 3.1**) and Good Practice During Wind Farm Construction, published by NatureScot (SNH (September 2019), Good Practice During Wind Farm Construction).

7.57 The substation and control building, together with battery storage units would be positioned within a compound (75m x 100m). These elements of the proposed development would be located within a field in the northern part of the site. This compound would result in vegetation removal and levelling of the ground, although this change would not be conspicuous due a combination of factors. The substation compound is relatively remote from key surrounding visual receptors, being approximately 950m from the A897 and approximately 1.2km from the residential properties on the east side of Strath Halladale. The ZTV (**Figure 7.2h**) for the proposed substation compound shows very limited theoretical visibility based on bare earth terrain data and vegetation would further reduce this theoretical visibility. A combination of landform and/or vegetation in the vicinity of the substation compound is also predicted to restrict or prevent potential views from Kirkton Cemetery and the residential properties at Kirkton. There could also be potential to alter the ground levels of the land that the substation compound, and use a combination of cut and fill and low bunds to screen the proposed structures.

7.58 The temporary construction compound would be located as shown on **Figure 3.1**. Reserved soils, stripped to form the area, would be stored in low stockpiles and used to reinstate the site compound on completion of the construction phase. No excess spoil would be present post remediation.

7.59 It is anticipated that the proposed turbines would be erected using two large mobile cranes. The turbines themselves would be delivered, mobilised and erected over a period of up to 18 months during which time cranes would be present on the site.

7.60 The proposed temporary construction compound, localised ground disturbance alongside the new access tracks and existing tracks caused by undergrounding of the proposed cabling, cut and fill to accommodate the access tracks and hardstandings, and any further areas subject to disturbance during construction, would be reinstated after construction is complete. The borrow pits would be created on the upper slopes of the site and would be restored using materials derived from the construction phase.

7.61 It is anticipated that the abnormal load turning areas would be surfaced with compacted stone. These would be retained for the operational life of the proposed development in order to facilitate the delivery of larger components to the site as part of exceptional maintenance works. There is a possibility that the abnormal load turning area adjacent to the A836 at Melvich could be used to support the provision of car parking for the new community hall.

7.62 The temporary duration of the construction period and the reinstatement of working areas would help to ensure that the effects of the construction phase on the landscape fabric would be minimised as much as possible. Nevertheless, having regard to the footprint of the development, it is anticipated that the magnitude of change from the construction phase on the landscape fabric of the site (including the abnormal load turning areas) would be **Substantial**.

7.63 As the sensitivity of the site is considered to be medium it is considered there would be localised **Major - moderate** and **Significant** direct effects on the landscape fabric of the site.

EFFECTS ON LANDSCAPE CHARACTER

7.64 Kirkton Energy Park would be located in the Sweeping Moorland and Flows LCT. The changes that would occur during the construction phase described in the preceding paragraphs would affect a small part of the LCA. It is considered that the forest felling would be consistent with forest felling regularly associated with the forested parts of the Sweeping Moorland and Flows. Moreover, the restoration of the forested area to peatland would be a positive change resulting from the change in landcover being more consistent with the predominant local landcover.

7.65 The abnormal load turning areas would have localised significant effects on landscape character, with the western option positioned in the Sweeping Moorland and Flows LCT and the eastern option positioned in the Coastal Croft and Small Farms LCT.

7.66 Overall, the introduction of man made elements and related activities associated with the infrastructure of the proposed development would result in an adverse change to the LCT. The main effects on landscape character resulting from the proposed development are assessed in the following sections which address the potential effects of the operational phase of Kirkton Energy Park.

THEORETICAL VISIBILITY OF THE PROPOSED DEVELOPMENT

7.67 The analysis of ZTVs is the starting point in the process of determining the potential effects of a proposed wind farm development on the wider landscape and identifying potentially affected sensitive landscape and visual receptors. The ZTV overviews are shown on a 1:250,000 base map in **Figures 7.2a**, **7.2b** and **7.2c**. **Figure 7.2a** shows a combination of blade tip and hub visibility, whilst **Figures 7.2b** and **7.2c** show the predicted visibility of the proposed development based on the full height to blade tip and the height to turbine hubs respectively. A more detailed ZTV shown in scale of 1:100,000 on 1:50,000 base map, showing the relative visibility of the turbines based on the full turbine height to blade tip and hub height is included in **Figure 7.2d**.

7.68 An analysis of the ZTVs is provided below which summarises the extent to which the proposed turbines would theoretically be visible from within the study area and the nature and location of the receptors likely to be affected. This informs the landscape and visual receptors to be scoped in or out, as set out in the following sections.

ZTV Analysis

Blade Tip ZTV of Kirkton Wind Turbines

7.69 The blade tip ZTV shown on **Figure 7.2b** identifies the parts of the study area where any part of the proposed development turbines up to the blade tip height of 149.9m would be theoretically visible. The ZTVs present the worst case and do not include any obstructions such as forestry, shelterbelts, and settlements which would considerably reduce the visibility in some areas.

7.70 The overall pattern of the ZTV is relatively limited and sporadic, covering a relatively small proportion of the of the 40km study area overall. A large proportion of the predicted visibility is associated with the area of sea to the north. Within the land based part of the study area, the main area of visibility is concentrated within 15km. Beyond 15km the pattern of visibility becomes increasingly limited and fragmented.

7.71 Within 15km, beyond the immediate site area, there is predicted visibility associated with a large proportion of the Sweeping Moorland and Flows LCT surrounding the site to the east, west and south. Strath Halladale lies immediately to the east of the site, extending south towards Trantlebeg, and the proposed development would be visible throughout the majority of the Strath. Visibility from locations to the north, along the coastline is generally quite fragmented, limited to the higher ground to the east and west of Strath Halladale. The notable exception is around the estuary of the River Halladale, where there are framed views south, along the Strath, with Kirkton Energy Park positioned on the westerly slopes. However, potential visibility from more settled parts of the coastline closer to the site is more restricted, with limited visibility predicted in the vicinity of Melvich, Portskerra, Reay and Strathy.

7.72 Between 15km and 25km theoretical visibility is most prevalent to the south and south west, associated with the more elevated areas of moorland land south east of Forsinard, Ben Griam Beg and Ben Griam Mòr. Elsewhere, the visibility is relatively limited.

7.73 Beyond 25km visibility of the proposed development is very limited to the east, to the south and east of Thurso, and is restricted to turbine blades. To the west and south predicted visibility is limited to small fragmented areas of higher ground, including Ben Loyal and Ben Hope to the south and south west of the Kyle of Tongue.

Comparative ZTV of Blade Tip and Hub Height of the Proposed Development

7.74 A comparative ZTV has been produced on **Figure 7.2a** and **7.2d**, showing where the blade tip ZTV and hub height ZTV overlap, in order to identify the areas where the hubs and blades of the turbines would be theoretically visible and areas from where blades only might potentially be seen.

7.75 The pattern of hub height visibility differs from the blade tip visibility, with a large proportion of theoretical visibility in the study area being blades only. This is particularly apparent for the lower lying landscape to the east of the site, beyond approximately 10km. Similarly, along the coastline to the north, with the exception of the area immediately around the estuary of the River Halladale, the majority of predicted visibility is limited to turbine blades. To the south and west of the site the differentiation between the hub height and blade tip visibility is less apparent.

Cumulative Wind Farms

7.76 The proposed Kirkton Wind Energy Park lies in an area where there are numerous existing, consented and proposed wind farms. The locations of wind energy developments with a blade tip height of over 50m within approximately 40km of the proposed development are shown on **Figure 7.3a**. This Figure also identifies the current status of each cumulative wind farm site: i.e. operational/under construction, consented, application stage or scoping stage, within 40km. Whilst wind farm developments at scoping stage are identified on **Figure 7.3a**, cumulative ZTVs have not been prepared for these proposed developments and they have not been included in the cumulative wireline Figures. This is due to uncertainty in relation to the design of these sites and how they will progress to planning application stage. Where appropriate, these sites are referred to in the assessment of potential effects on landscape and visual receptors. The status of the wind farms is taken to be current as of August 2022. The Lochend, Slickly and Hill of Stroupster Wind Farms are included in the assessment because they lie close to each other, with Lochend Wind Farm lying just beyond the 40km study area.

7.77 The list of wind farms included in the detailed cumulative assessment is set out in **Table 7-7**. This totals 28 operational or consented sites, five proposed (at application stage) and 10 at EIA scoping stage. Where considered appropriate, based on proximity to each other and location within the study area, the cumulative wind farm developments have been grouped together. These groupings are shown on **Figure 7.3b**.

Table 7-7: Wind Farm Developments Considered in the CLVIA

Status	Wind farm	No of Turbines	Height of Turbines to Blade Tip (m)	Direction from Kirkton Energy Park	Approx. distance from Kirkton Energy Park (km)
Operational/Consented	Achairn	3	100	SE	41.78
	Achlachan	5	115	SE	26.97
	Bad a Cheo	13	112	SE	29.11
	Bettyhill	2	119	W	13.1
	Bilbster	3	93	SE	38.88
	Baillie	21	115	NE	13.5
	Boulfruich	15	75	SE	34.94
	Camster	25	100	SE	37.44
	Causeymire	24	101	SE	27.38
	Cogle Moss	12	100	E	38.35
	Dounreay Tri	10	270	N	14.13
	Forss	2	76	NE	15.31
	Forss Extension	4	78	NE	15.19
	Golticlay	19	130	SE	36.39
	Halsary	15	120	SE	29.65
	Hill of Lybster	1	99.5	NE	15.67
	Hill of Stroupster	12	110	NE	44.27
	Limekiln Extension	5	149.9	E	10.47
	Limekiln S36 Variation	19	149.9	E	8.04
	Lochend	4	99.5	NE	36.9
	Strathy North	33	110	W	5.41
	Strathy South	34	200	SW	8.39
	Strathy Wood	20	180	SW	4.97
	Tacher	2	130	SE	30.56
	Taigh Na Muir Dunnet	1	79.6	NE	38.22
	Wathegar	5	100	SE	39.47
	Wathegar 2	9	110	SE	40.42
	Weydale Farm	1	66	NE	25.33
Proposed (Planning Application)	Armadale	12	149.9	NW	6.83
	Bettyhill Extension	11	149.5	W	12.39
	Forss Extension 3	2	125	NE	15.19
	Golticlay	19	130	SE	36.39
	Slickly	11	149.9	NE	42.74
	Tormsdale	12	149.9	SE	26.11

EIA Scoping Stage					
	Cairnmore Hill	5	138.5	NE	18.01
	Corsback Hill	4	149.9	E	32.01
	Dounreay Test and Demo Floating	10	270	N	14.98
	Lochend Extension	5	150	E	39.27
	Loch Toftingall	6	138.5	SE	30.32
	Melvich Wind Energy Hub	13	149.9	N	0.16
	Rangang Farm	2	150	SE	32.9
	Stemster	11	200	SE	35.13
	West of Orkney Offshore	Up to 125	Up to 370	NW	32.52

Visibility of Kirkton Wind Farm with Operational and Consented Wind Farms

7.78 The cumulative wind farms within the study area are concentrated in two areas: the more settled, agricultural landscapes of Caithness to the east, and the more remote landscapes in the eastern part of Sutherland to the west. The locations of these wind farms relative to Kirkton Energy Park is shown in **Figure 7.3a**.

7.79 Those within Caithness include the operational Baillie Wind Farm, consented Limekiln Wind Farm (and extension) and operational and consented wind farm developments at Forss closer to the site. In addition, there are several developments in the vicinity of the A9 and further east, as shown in **Figure 7.3a**. In broad terms the cumulative ZTVs in **Figures 7.4a** to **7.4l** show that that the land based visibility of these wind farms is concentrated in the eastern part of the study area and there is less overlap with the ZTV for Kirkton Energy Park. The exceptions to this are Baillie Wind Farm, Limekiln Wind Farm and the developments at Forss, which are positioned closer to Kirkton Energy Park and there is greater overlap in the areas of associated visibility, particularly within approximately 15km of the proposed development.

7.80 The wind farms within Sutherland include the operational Strathy North Wind Farm, the consented Strathy Wood and Strathy South Wind Farms and the two operational wind turbines at Bettyhill. The key areas of land based visibility associated with these wind farms is across the western and southern parts of the study area. These areas of visibility overlap with the ZTV for Kirkton Energy Park, particularly within the landscape either side of Strath Halladale.

7.81 The consented offshore Dounreay Tri wind turbines are positioned approximately 10km from the coastline. There is overlap between the visibility of the consented Dounreay Tri with the ZTV for Kirkton Energy Park, particularly along the north coast and from higher land further inland.

7.82 The key existing and consented cumulative wind farms in the landscape surrounding Kirkton Energy Park are the Strathy Wind Farm developments, Limekiln Wind Farm, Baillie Wind Farm and the wind turbines at Forss.

7.83 A notable feature of the pattern of visibility of existing and consented wind farms, and how this overlaps with Kirkton Energy Park is within Strath Halladale. Visibility of the existing and consented wind farms is relatively limited within Strath Halladale, especially for lower parts of the Strath.

However, Kirton Energy Park would alter this pattern as it would be seen throughout most of Strath Halladale.

LANDSCAPE DESIGNATIONS

7.84 National and local designations within the 40km LVIA study area are shown on **Figure 7.1b** (Landscape designations). There are no landscape designations within the site, but the proposed development would be visible from several designated areas as shown on **Figure 7.2e** which is an overlay of the designated areas with the ZTV for the proposed development.

7.85 As identified in **Table 7-3** (EIA Scoping Comments) in this chapter, certain designations have been scoped out of the LVIA. NatureScot identified that the Kyle of Tongue National Scenic Area (NSA) can be scoped out of the LVIA due to the intervening distance, limited predicted visibility and the presence of other wind farms between the designation and Kirkton Energy Park. Two Gardens and Designed Landscape lie within or just beyond the study area: Tongue House and Castle of Mey (Barrowgill Castle). In the case of Tongue House, the ZTV shows there would be no visibility of the proposed development. In the case of Castle of Mey (Barrowgill Castle) any visibility is predicted to be limited to turbine blades and these would be seen at a distance of over 42km, meaning the prominence of the turbines would be very limited. Therefore, these designations are not considered further in the LVIA.

Local Landscape Designations

7.86 The Highland Council published an Assessment of Highland Special Landscape Areas[1] (SLAs) in June 2011 with subsequent refinement of the SLA boundaries (not dated). This document forms a background paper to support the Highland Wide Development Plan. Seven SLAs lie within the study area. The Glen Loth – Loch Fleet SLA lies on the southern edge of the Study Area, with no predicted visibility of the proposed development within 40km, and predicted visibility beyond 40m is limited and fragmented, therefore this SLA has been scoped out of the assessment. The remaining six SLAs are predicted to all have some visibility of the proposed development based on the ZTV analysis and are included in the LVIA. These comprise:

- Farr Bay, Strathy and Portskerra;
- Bens Griam and Loch nan Clar;
- Dunnet Head;
- Flow Country;
- Ben Kilbreck; and
- Loch Eriboll.

[1] The Highland Council (June 2011) Assessment of Highland Special Landscape Areas

7.87 **Table 7-8** summarises the characteristics and special qualities of the SLAs defined in published citations/ descriptions that are particularly relevant to the potential landscape and visual effects of the proposed development.

Table 7-8: Landscape Designations, Characteristics and Special Qualities

SLA	Distance and Direction from the Nearest Turbine	Landscape Characteristics and Special Qualities Defined in Published Citations/ Descriptions
Farr Bay, Strathy and Portskerra	3.5km north/north west	**Key Characteristics:** • Deeply–indented coastline characterised by a repetitive rhythm of alternating rocky headlands and sheltered bays, closely related to the underlying geological structure. • Impressive assemblage of hard/rocky coastal landforms including cliffs, headlands, stacks, arches, caves and ravines. • Fine sandy beaches in the largest and most sheltered bays which form foci that contrast in colour, form and texture to the rocky coastal cliffs. • Elevated areas on the intervening high ground between the bays close to the sea provide expansive views both along the coast and out to sea, contrasting with a more enclosed, intimate visual character within the major bays. Views south to the inland mountains are a notable feature of this stretch of coast. • The large scale of the landscape, combined with often rapidly changing weather and the distinctive coastal light, creates dynamic and dramatic visual effects. • The immediate coastline is often not visible from the adjacent inland areas due to convex nature of slopes and the vertical cliffs which screen views. Consequently views tend to focus upon the waters of the Pentland Firth with its strong tides and currents which are clearly visible from many locations. • Patterns of land cover and settlement within crofting areas form a complex mosaic with moorland areas, although occurring predominantly as linear strips or isolated patches, closely associated with physical conditions including soil type and topography. Crofting and farming are largely confined to the slopes around the bays and their subtle field patterns contrast with the simple vegetation backcloth of the inland hills. • The moorland landscapes, with rolling slopes and hills and a characteristic combination of convex slopes and simple vegetation cover with rocky outcrops, become noticeably more open and sweeping in character moving eastwards towards Caithness. • Abandoned and ruined buildings occur in places, partly a reflection of the harsh, uncompromising nature of the exposed coastal landscape. These form distinctive visual elements, together with the harbours and jetties which occur at regular intervals along the coast, and evoke a sense of history. • Trees and scrub are rare, mainly restricted to crofts and settlements or in steeper glens. **Special Qualities:** • Dramatically Intricate Coastline and Forceful Sea

SLA	Distance and Direction from the Nearest Turbine	Landscape Characteristics and Special Qualities Defined in Published Citations/ Descriptions
		• Moorland and Crofting Mosaic • Big Skies and Extensive Views • Historical Dimension
Bens Griam and Loch nan Clar	15.6km south	**Key Characteristics:** • A conspicuous cluster of peaks pierce a wider lower-lying landscape of lochs, watercourses and sweeping moorland. • The hills are covered by a Montane grassland scattered with rocky outcrops, areas of scree and incised with watercourses cutting into the slopes. • The open moorland is vast in extent with a unifying mosaic of rough grassland and heathers. This forms a simple composition which changes with the seasons and light conditions, with the strong reds of deer grass prevailing in autumn. • Coniferous plantations appear highly incongruous in this landscape as stark, angular, dark blocks which contrast with the muted colours, textures and sinuous patterns of the moorland vegetation. • Flat boggy ground is criss-crossed by a series of larger burns and tributaries providing connections between the lochs and lochans and presenting barriers to access. Because of the predominant flatness of the peatland these are not always obvious from a distance. • Pockets of sheep grazings, stone walls, post and wire fencing and telegraph poles mark the transition from isolated mountain and moorland to the road and rail corridor. • Lightly peppered across the landscape are the remains of prehistoric settlement, cleared later medieval townships and shielings. Frequent archaeological features such as cairns and hut circles are commonly found within the shelter of landform, in proximity to open water, and atop Ben Griam Mòr. • Views are expansive across the peatlands, with the interior hills forming the dominant visual foci and the lochs being of secondary prominence. • The isolated nature of this mountain, moorland and loch landscape means that it is little disturbed and retains a sense of wildness which increases with distance from the main roads. Land use tends to be limited to fishing, deer stalking and forestry with some hill walkers. **Special Qualities:** • Accessible Solitude • Flow Country Views
Dunnet Head	31.9km north east	**Key Characteristics:** • A peninsula offering a spectacular panorama both seaward and inland to distant mountain peak. • The headland which is massive in scale and formed from Old Red Sandstone. In detail, the cliffs form a complex cracked, fissured and eroded profile, with prominent and distinctive horizontal strata clearly visible.

SLA	Distance and Direction from the Nearest Turbine	Landscape Characteristics and Special Qualities Defined in Published Citations/ Descriptions
		• Reaching heights of up to 100m, the cliffs form an abrupt and sharply defined vertical edge to the coastline viewed against the open sea from distance. From distant viewpoints, these are seen to rise in stark contrast to the open sea while, from the cliff tops, the sense of exposure can be dramatic and, for some, intimidating. • Low vegetation clings to the cliff tops, ledges, and eroded faces and parts of the rocky shoreline. The rich green hues of algae growing on damp areas of the cliff faces provide further striations of contrast against the red sandstone rock face. • Sea birds including puffins frequent the cliff ledges and steep coastal grasslands. Together with the pounding spray and constant swell, the sounds and activity of these birds contribute to a dynamic experience. • Sweeping moorland, punctuated by lochans, hilltops and the remains of WWII defensive structures, forms a contrasting open interior to the peninsula, where remote qualities can be experienced within a short distance from the busier settled areas. • Elevated views from the peninsula reveal a pattern of pasture and arable fields to the south; these form a distinctive transition between the exposed headland and the settled agricultural lowlands to the south. **Special qualities:** • Panoramic Views from Prominent Headland and Striking Cliffs • Isolated Moorland and Lochans • Contrasting Bay and Cliff Landscapes
The Flow Country and Berriedale Coast	22.3km south/south east	**Key Characteristics:** • A striking combination of mountains rising abruptly from surrounding extensive areas of peatland that is vast in scale, with a long low horizon and broadly very simple in character, although containing numerous lochs, lochans and pools. The peatland areas are very difficult to access or cross due to the lack of tracks and roads and because of the drainage conditions. As a consequence, these areas tend to possess a strong sense of wildness. • The isolated mountains are typified by exposed rock, rocky outcrops and scree, and montane vegetation. They form distinctive and offer extensive views over the Flow Country and out to sea. • The moorland foothills which flank the lone mountains typically comprise undulating and sloping broad convex hills, plateaux, rocky outcrops and crags, dense heather and grassland mosaics. The landform sweeps gently north from impressive elevations across vast open moorland to the flat peatland. • Views of peatland are typically very simple in composition at a broad scale. However, at a more detailed level, lochs, pools and patches of surface water, networks of watercourses and tussocky wetland grass and heather provide variation of detail including sounds, colours and textures. • The peatland expanse is incised in places by deeply carved, meandering wooded glens. Parallel tracks and footpaths,

SLA	Distance and Direction from the Nearest Turbine	Landscape Characteristics and Special Qualities Defined in Published Citations/ Descriptions
		penetrate some interior parts of these glens, also occupied by isolated lodges and bothies utilising the shelter and protection offered by these glen slopes. These built structures emphasise and contrast the vast scale of the surrounding peatlands. • Settlement only occurs at the south eastern part of this area, restricted to the sheltered glens and coastal areas. This leaves the area largely undeveloped and consequently possessing strong qualities of wildness. **Special qualities:** • Distinctive Mountain and Moorland Skyline • Exposed Peaks, Vast Openness and Intimate Glens • The Historic Landscape
Ben Klibreck and Loch Choire	32.4km south west	**Key Characteristics:** • A very large-scale, open and exposed landscape in which prominent, high isolated mountains rise conspicuously from the surrounding moorland with its very distinctive profile. The contrasting lower, hill massif is characterised by less distinctive landforms. Exceptional panoramic views are available from the high ridges and summits in clear conditions. Remote lochs occupy the trough between the mountain and the hills to the south. • At a broad level the landform is very simple. However, at a more detailed level there is a diversity of upland habitats characterised by mosaics of heathland and grassland, with frequent rocky outcrops, screes and crags. Fragments of broadleaf woodland also occur on the lower ground that provides shelter. • Pockets of gently sloping improved pasture fringe the shores of the two main lochs scattered with mature trees and stone sheepfolds. Occasional coniferous plantations appear particularly incongruous, contrasting in shape, colour and texture. This incongruity is particularly prominent when viewing from the isolated hill tops and distracts from the open panoramas seen from these areas. • The isolated mountains of Ben Klibreck and Ben Armine, the lowland enclosed between them, the open moorland, and the extremely sparse settlement all contribute to a very strong sense of wildness within this area. **Special qualities:** • Distinctive Mountains • Secluded Glen with Network of Tracks • Extensive Views from Peaks and Summits • Historic Landscape
Eriboll East and Whiten Head	29.8km west	**Key Characteristics:** • The distinctive contrasts in scenery reflect an important geological boundary at the edge of the Moine Thrust Belt (which takes its name from the A' Mhoine peninsula). The transition from older rocks within the thrust belt to younger rocks beyond is echoed by a change in topography. The more rugged landforms and

SLA	Distance and Direction from the Nearest Turbine	Landscape Characteristics and Special Qualities Defined in Published Citations/ Descriptions
		moorland of the Moinian rocks on the north coast give way to the more gentle slopes and fields on the shores of the loch. • Loch Eriboll is a glacial fjord occupying a strong linear north east to south west orientated inlet with steep side slopes and deep waters. • The shoreline along Loch Eriboll presents a transition in character from low-lying wet heath and tidal flats and sand and shingle bays with rocky outcrops in the south to an increasingly dramatic rising cliffscape in the north. • The distinctive "T"-shaped peninsula at Ard Neackie and the island of Eilean Choraidh (horse island) form key focal elements within the loch which contrast in scale with their surroundings. • Dramatic framed views inland along the loch to the southwest towards the mountains (including Cranstackie, Foinaven, and Arkle), and north to the open Atlantic, come together to give a striking example of a mountain, sea and loch composition. • The contrast between the sheltered nature of Loch Eriboll, the dramatic and challenging wildness of the mountains and rugged coastline, and the openness and exposure of the sea creates a distinctive the sense of place. • Quartzite screes complementing adjoining shingle shorelines contrast to the dark heather tones of the hillsides. A striking example of this occurs on the slopes west of Ben Arnaboll (Am Breac-Leathad – the speckled slope). • Isolated farmed areas, including at Eriboll, Hope and East Strathan, form abrupt changes in character from the dominant open moorland, comprising a distinct pattern of pasture, dwellings, stone walls and tree cover. However, these isolated areas and other man-made features including the single-track roads with associated signs, walls, fences and telegraph poles, have little impact on the perception of overriding sense of naturalness in this landscape. The impression of this as being an unspoiled landscape is reinforced by its peripheral location and feeling of remoteness. • Marine aquaculture operations are present in the loch. Although these are generally small in size, they are numerous and from some perspectives create a sense of clutter which can detract significantly from the inherent qualities of the landscape and seascape. **Special qualities:** • Striking Geological and Landscape Contrasts • Striking Views • Sparse Settlement and Naturalness

Wild Land Areas

7.88 Four Wild Land Areas (WLA) are located within the 40km study area:

- WLA 35 Ben Klibreck – Armine Forest;

- WLA 36 Causeymire – Knockfin Flows;
- WLA 38 Ben Hope – Ben Loyal; and
- WLA 39 East Halladale Flows.

7.89 The assessment scope for WLA was established through consultation with NatureScot. This identified a requirement for a specific detailed assessment of the effects of Kirkton Energy Park on WLA 39 East Halladale Flows. No request has been made during the scoping of the LVIA for a detailed WLA assessment to be undertaken in relation to the other WLAs within the study area.

7.90 There are four key attributes and qualities associated with the East Halladale Flows WLA:

- An awe-inspiring simplicity of landscape at the broad scale, with a strong horizontal emphasis, 'wide skies' and few foci;
- A remote, discrete interior, with limited access and a strong sense of solitude;
- A rugged and complex pattern of hidden burns, lochans and pools at the local level, despite the landscape's simple composition at the broad scale; and
- A remarkably open landscape with extensive visibility, meaning tall or high features in the distance are clearly visible.

7.91 A detailed assessment of the effects of the proposed development on the East Halladale Flows WLA is included in **Technical Appendix 7.5**.

POTENTIAL LANDSCAPE EFFECTS

Effects on the Landscape Fabric

7.92 The key impacts on the landscape fabric of the proposed development are all direct effects that would occur during the construction phase and assessed in the relevant sections above (starting at paragraph 7.45). The changes to the landscape fabric after construction of the proposed development would mainly affect the landcover predominately through the peatland restoration works that would take place where the commercial forestry is removed in the northern part of the site during the construction stage.

7.93 As stated in the preceding paragraphs, the landscape of the site is considered to be of medium sensitivity to the change envisaged as a result of the proposed development. When considered in the context of the existing baseline condition of the site, the proposed development would represent a localised **Substantial** magnitude of change on the landscape fabric resulting in a localised **Major – moderate** and **Significant** effect.

Effects on Landscape Character

7.94 Landscape baseline conditions are described and classified by NatureScot Landscape Character Types (LCT) (SNH, 2019) as shown on **Figure 7.1c**. Taking these LCTs as a starting point, the LVIA

focuses on the key landscape characteristics that are relevant to the proposed development and upon which there are most likely to be significant landscape effects. To inform this process, **Figure 7.2f** shows an overlay of the blade tip ZTV and a map of LCTs.

7.95 The effects of the proposed development on the landscape character of the study area have been assessed through review of the ZTVs (**Figures 7.2a** to **7.2h**), field survey work and the assessment of impacts at the 19 agreed viewpoints (see **Technical Appendix 7.3**), noting that no detailed assessment has been undertaken for viewpoints 16 and 17. The assessment of effects on landscape character has been carried out firstly on the basis of the addition of the proposed development in the context of other existing or consented wind farms (i.e. the baseline for the proposed development), and secondly based on the introduction of the proposed development with the baseline of existing and consented wind farms as well as the application stage developments included in the cumulative assessment.

7.96 The findings of the Viewpoint Assessment (**Technical Appendix 7.3**) have been used to inform the assessment of impacts on LCAs described in the following text. The findings of the Viewpoint Assessment are summarised in **Table 7-9** below.

Table 7-9: Summary of Effects and Cumulative Effects on Landscape Character as Assessed at Each Viewpoint

No.	Viewpoint	LCT / Designation	Approx. distance to the nearest turbine (km)	Direction of view to proposed development	Value	Susceptibility	Sensitivity	Magnitude of Change: Existing/ consented + Kirkton Energy Park	Landscape Effect	Magnitude of Change: Existing/ consented/ Proposed + Kirkton Energy Park	Effect on Landscape Receptor
VP1	A897, Strath Halladale, Achiemore	Strath – Caithness and Sutherland LCT	1.5	North west	Medium	High	High-medium	Substantial	Major	Substantial	Major
VP2	A837, Goval, Strath Halladale	Strath – Caithness and Sutherland LCT	2.2	South west	Medium	High	High-medium	Substantial	Major	Substantial	Major
VP3	A836, south east edge of Melvich	Coastal Crofts and Small Farms LCT Scenic route – North Coast 500/North and West Highlands	3.1	South	High-medium	Medium	Medium	Slight	Moderate – minor	Slight	Moderate – minor
VP4	A836, junction to Bighouse	Sweeping Moorland and Flows LCT Scenic route – North Coast 500/North and West Highlands	3.7	South west	High-medium	Medium	Medium	Substantial	Major-moderate	Substantial	Major-moderate
VP5	Bighouse	Within the Sweeping Moorland and Flows, Strath – Caithness and Sutherland LCT, but at the transition with the Sandy Beaches and Dunes LCT and Strath – Caithness and Sutherland LCT Edge of Farr Bay, Strathy and Portskerra SLA	3.9	South	High-medium	High-medium	High-Medium	Medium	Major-moderate	Medium	Major-moderate
VP6	Portskerra	Coastal Crofts and Small Farms LCT Farr Bay, Strathy and Portskerra SLA	4.6	South	High - medium	Medium	Medium	Negligible	Minor	Negligible	Minor
VP7	A836, west of Strathy	Sweeping Moorland and Flows LCT Farr Bay, Strathy and Portskerra SLA Scenic route – North Coast 500/North and West Highlands	6.9	South east	High - medium	Medium	Medium	Slight	Moderate - minor	Slight	Moderate - minor
VP8	Beinn Ratha	Sweeping Moorland and Flows LCT East Halladale Flows WLA	7.4	West	High-medium	Medium	Medium	Medium	Moderate	Medium	Moderate
VP9	Totegan, near Strathy Point	Coastal Crofts and Small Farms LCT Farr Bay, Strathy and Portskerra SLA	9.1	South east	High-medium	Medium	High-medium	Medium	Major-moderate	Medium	Major-moderate
VP10	A836, west of Armadale	Sweeping Moorland and Flows LCT Scenic route – North Coast 500/North and West Highlands	10.8	South east	High-medium	Medium	Medium	Slight	Moderate-minor	Negligible	Minor
VP11	Observation tower, RSPB Forsinard Flows Reserve	Sweeping Moorland and Flows LCT	15.8	North	High-medium	Medium	Medium	Negligible	Minor	Negligible	Minor
VP12	Northern edge of Causeymire – Knockfin Flows Wild Land Area	Sweeping Moorland and Flows LCT Edge of The Flow Country and Berriedale Coast SLA Edge of Causeymire – Knockfin Flows WLA	16	North west	High-medium	Medium	Medium	Slight	Moderate – minor	Slight	Moderate – minor
VP13	Ben Griam Beg	Lone Mountains LCT Bens Griam and Loch nan Clar SLA	17.4	North east	High-medium	High - medium	High - medium	Slight	Moderate - minor	Slight	Moderate - minor
VP14	A836, Forss	Farmed Lowland Plain LCT Scenic route – North Coast 500/North and West Highlands	19.5	South west	Medium	Medium	Medium	Slight-	Moderate-minor	Slight-	Moderate-minor
VP15	Ben Alisky	Sweeping Moorland and Flows LCT The Flow Country and Berriedale Coast SLA Causeymire – Knockfin Flows WLA	25.4	North west	High-medium	Medium	Medium	Slight	Moderate – minor	Slight	Moderate – minor
VP16	Achnahuaigh,	At the transition between Coastal Crofts and Small Farms, and Rocky Hills and Moorland LCTs Kyle of Tongue NSA	30.4	East							

No.	Viewpoint	LCT / Designation	Approx. distance to the nearest turbine (km)	Direction of view to proposed development	Value	Susceptibility	Sensitivity	Magnitude of Change: Existing/ consented + Kirkton Energy Park	Landscape Effect	Magnitude of Change: Existing/ consented/ Proposed + Kirkton Energy Park	Effect on Landscape Receptor
VP17	Ben Loyal	Lone Mountains LCT Kyle of Tongue NSA Ben Hope – Ben Loyal WLA	31.5	North east							
VP18	Dunnet Head	High Cliffs and Sheltered Bays LCT Dunnet Head SLA	36	South west	High-medium	High – medium	High – medium	Negligible	Minor	Negligible	Minor
VP19	A836, Balmore	Farmed Lowland Plain LCT Scenic route – North Coast 500/North and West Highlands	15	South west	Medium	Medium	Medium	Negligible	Minor	Negligible	Minor

7.97 The following analysis sets out the key characteristics, extent and value of the LCT that occur withing the study area. The sensitivity of each LCT is derived by considering its value and its susceptibility to change of the nature associated with wind farm development.

7.98 The predicted impacts of the proposed development on its own and also cumulatively on the LCTs that occur in the study area and are predicted to have visibility of the proposed development with operational and consented wind farms. The assessment also takes account of the proposed wind farms (at planning application stage) in the study area; Armadale, Forss Extension 3, Golticlay, Slickly and Tormsdale. Reference to potential wind farm developments at EIA Scoping stage are also referred to where particularly relevant to the LVIA.

7.99 **Table 7-10** below provides an overview of the LCTs included in the LVIA, their relationship with the site and the predicted visibility of Kirkton Energy Park.

Table 7-10: LCTs included in the LVIA

LCT Ref No.	LCT Name	Potential for visibility of the proposed development (based on the blade tip ZTV)	Relationship with the site
134	Sweeping Moorland and Flows	The footprint of the ZTV is principally associated with this LCT, to the east and west of Strath Halladale and also within and around upper (more southerly) parts of the Strath, extending towards the Bens Griam as well as more distantly south and west of Frosinard.	The site lies within this LCT. The LCT also occupies a relatively large proportion of the study area.
135	Rounded Hills – Caithness and Sutherland	Fragmented, and overall limited, theoretical visibility associated with multiple occurrences of the LCT. Visibility is mainly associated with higher ground.	Generally relatively remote from the site, typically occurring at distances over 15km to the south.
136	Rocky Hills and Moorland	Fragmented visibility from more elevated parts of the LCT. Key theoretical visibility is associated with the closest occurrence of this LCT is to the west of the site (approximately 7km).	LCT occurs to the west of site, with the closest part being approximately 7km and extending beyond the study area.
138	Lone Mountains	Theoretical visibility associated with all the summits within the occurrences of this LCT throughout the study area. Theoretical visibility from lower slopes is generally more limited, although the north facing lower slopes of Ben Griam Beg are an exception to this pattern.	Six occurrences of this LCT within the southern and western parts of the study. All occurrences of the LCT are over 15km from the site.
140	Sandy Beaches and Dunes	Overall, very limited theoretical visibility from areas of this LCT. The main exception, and focus for the LVIA, is Melvich Bay to the north of the site, where there would be potential visibility of the proposed development	Within the 40km study area there are multiple occurrences of this LCT along the northern coastline. They comprise small discrete areas set within the rocky coastline. The closest occurrence is

		from the sand dunes to the south of the beach.	Melvich Bay, which lies approximately 2.5km north of the site.
141	High Cliffs and Sheltered Bays	This LCT primarily comprises north facing cliffs and bays, and consequently there is relatively limited theoretical visibility of the proposed development. The key exception is Dunnet Head, where fragmented theoretical visibility is predicted for elevated parts of the landform, at a distance of over 30km.	Within the 40km study area the occurrences of this LCT are along the north coast, generally comprising a narrow ribbon along the coastline.
142	Strath – Caithness and Sutherland	Theoretical visibility is associated with Strath Halladale, which lies almost immediately to the east of the site. Visibility of the proposed development in other occurrences of this LCT is very limited and associated with small, isolated areas.	There are three occurrences of this LCT within the study area. The most important, in the context of the LVIA, is Strath Halladale.
143	Farmed Lowland Plain	This is an extensive LCT occurring in the eastern part of Caithness. The key areas of theoretical visibility lie to the east and west of Thurso, associated with the higher ground surrounding the settlement.	There is one extensive area of this LCT within the study area, with the closest part lying approximately 8km to the east.
144	Coastal Crofts and Small Farms	Overall, there is very limited theoretical visibility from occurrences of this LCT. The main exception, and focus for the LVIA is associated with Melvich and Strathy Bay to the north and north west of the site.	Multiple areas of this LCT occur along both the northern and south eastern coastlines in the study area. The most extensive areas of this LCT occur along the south east facing coastline overlooking the North Sea, where there is no theorical visibility. The occurrences along the northern coastline comprise small areas associated with sheltered bays and headlands. The closest areas are around Melvich, approximately 1.5km to the north of the site and along the east facing coast adjacent to Strathy Bay at approximately 5km.

7.100 **Table 7-11** below provides an overview of the baseline characteristics of each LCT, its value and sensitivity to the proposed development as well as the predicted effects and whether these are considered to be significant. The LCTs where the potential effects are predicted to be greatest are 134 Sweeping Moorland and Flows and 142 Strath – Caithness and Sutherland, specifically Strath Halladale. Therefore **Table 7-11** is structured to consider these LCT first.

Table 7-11: Landscape Baseline and Predicted Landscape Effects

Landscape Character Type	Key Characteristics	Landscape Value, Susceptibility and Sensitivity to the Proposed Development	Magnitude of Change Due to the Proposed Development (Including Consideration of Baseline Wind Farms)	Level and Significance of Landscape Effects	Magnitude of Change and Potential Effects due to the Proposed Development in Relation to Baseline and Proposed Wind Farms
134: Sweeping Moorland and Flows	• Gently sloping or undulating landform which lies generally below 350 metres. • Occasional isolated hills of limited height form local landmark features. • Lochs and mature, meandering rivers. • Very distinct flora, dominated by sphagnum mosses, produced by the wetness and infertility of the flows. • Areas of peat cuttings and hagging. • Pockets of improved grazing, mainly within the outer fringes of sweeping moorland. • Coniferous forest forming a dominant characteristic within some parts of this landscape character type. • Ribbons of broadleaf woodland occasionally run along the water courses and loch edges. • Very sparsely settled with dispersed crofts, farms and estate buildings largely found on the outer edges of this landscape or near a strath. • Vehicular tracks within parts of the landscape. • Wind farms, transmission lines, the A9 and a network of minor roads are key features within the more modified outer fringes within Caithness. • Long, low and largely uninterrupted skylines offering extensive views across this landscape and result in a feeling of huge space. • Consistent views to the distant Lone Mountains and Rugged Mountain Massif – Caithness & Sutherland. • Great sense of exposure on areas of flat peatland on upland plateau. • A strong sense of remoteness is associated within the largely uninhabited, inaccessible core flows and moorlands of this landscape.	Within the study area the Sweeping Moorland and Flows largely comprises one continuous area, the exceptions being two discrete areas in north west Caithness. Parts of the LCT lie within SLAs: Farr Bay, Strathy and Portskerra; Bens Griam and Loch nan Clar; The Flow Country and Berreidale Coast; and Ben Klibreck and Loch Choire. Parts of the LCT are also within the four WLAs within the study area: WLA 35 Ben Klibreck – Armine Forest, WLA 36 Causeymire – Knockfin Flows, WLA 38 Ben Hope – Ben Loyal, WLA 39 East Halladale Flows (see **Figure 7.2e**). Therefore, a relatively large proportion of the LCT is designated at a local authority level or lies within a WLA. It is a distinctive landscape with strong and continuous character and clear ecological interest. It also generally has a sense of remoteness, particularly within the core parts of the LCT. There are some detracting elements, notably large areas of commercial forestry, wind farms and power lines. The LCT is considered to be of **High-medium** value Considering the baseline characteristics of the landscape, the character area is considered to have a **Medium** level of susceptibility to the type of development. This is particularly due to the large scale of the landscape, limited scale indicators, simple horizontal form and the presence of existing wind farms and overhead power lines. Combining the judgements on the level of susceptibility to change and the value attributed to this landscape character type, the overall sensitivity is **Medium**. This judgement is made based on the scale and simplicity of the landscape, together with the ZTV pattern being primarily coincidental with the non-designated parts of the LCT.	The proposed development would be located in the northern part of this LCT, just to the south of the coastal LCTs and west of Strath Halladale (Strath – Caithness and Sutherland LCT). Kirkton Energy Park would be seen at both relatively close distances (within 5km) and also at longer distances. Beyond 15km the pattern of visibility becomes increasingly fragmented and the wind farm would be seen in the context of the expansive sweeping moorland and would comprise a relatively limited element. Due to the extent of this LCT there would be large areas from which the proposed development would not be visible. **Figure 7.2f** illustrates theoretical visibility across the LCT. Key ancillary elements of the operational development would be located within this LCT, including the access tracks, and substation compound. The access tracks would add to the existing farm tracks within the site and would comprise wider routes. The substation compound (including the substation and control building and battery storage unit) would be positioned in the northern part of the site, on the edge of the LCT. The substation compound has been positioned on lower ground to limit its potential prominence and utilise the local landform and vegetation to provide screening of the proposed structures. Where the proposed development would be visible, it would generally be seen together with existing or consented wind farms, particularly the Strathy and Limekiln Wind Farms, which are also located within this LCT. Kirton Energy Park would occupy a gap between these baseline wind farm developments, but it would also be smaller in size and comprise a simple, evenly spaced line of turbines. In a broader context, the existing and consented wind farms at Causeymire are also positioned within the LCT. As a result, the proposed development would not introduce new elements, but it would reinforce an existing pattern of development. The proposed Sutherland Space Hub would be located within this LCT, in the western part of the study area, and has been identified by THC as development for consideration as part of potential cumulative effects. This development has been granted planning permission and therefore forms part of the baseline. The potential for cumulative effects between the Sutherland Space Hub and Kirkton Energy Park is limited. The intervening distance between the Space Hub and the closest turbine is approximately 33km. In addition, existing and	Combining the judgements regarding sensitivity and magnitude of change, the proposed development is predicted to give rise to a **Moderate adverse** level of effect on this character area. However, given the size of the change that would occur in the part of the LCT closest to the proposed development this is considered to be a **Significant** effect on parts of the LCT within up to approximately 8km to 10km**.**	The key proposed (planning application stage wind farms) with which Kirkton Energy Park could result in additional cumulative effects are Armadale Wind Farm and Bettyhill Extension Wind Farm, both of which would be located to the west of the site. The ridgeline to the west of Strathy Forest, which includes Bein Ruadh, restricts the potential for combined visibility of these proposed developments with Kirkton Energy Park, although there would be potential for people travelling through the landscape to experience sequential visibility of the different developments. Both Armadale Wind Farm and Bettyhill Extension Wind Farm are closer to the Strathy Wind Farms and cumulative effects are likely to be greater in relation to these combined developments, especially at a local level. Other proposed wind farms (Forss Extension 3, Slickly, Tormsdale and Golticlay) are located, more distantly in the eastern part of the study areas and would be closely associated with the existing pattern of wind farms. Given this and the separation distance from Kirkton Energy Park the potential for notable cumulative effects would be very limited. Therefore, in addition to the baseline and proposed wind farms, the magnitude of cumulative change of the proposed development is considered to remain **Moderate**. The effect on the LCA would remain **Moderate** and **Significant** for parts of the Sweeping Moorland and Flows LCT within approximately 10km of the site.

Landscape Character Type	Key Characteristics	Landscape Value, Susceptibility and Sensitivity to the Proposed Development	Magnitude of Change Due to the Proposed Development (Including Consideration of Baseline Wind Farms)	Level and Significance of Landscape Effects	Magnitude of Change and Potential Effects due to the Proposed Development in Relation to Baseline and Proposed Wind Farms
			consented wind farms lie between the Space Hub and Kirkton Energy Park. The proposed development would relate to the human-influenced character of the fringes of this landscape. Also, being placed on the northern edge of the LCT would help to limit the overall extent of the change. An integral part of the of the proposed development is the removal of the commercial forestry within the northern part of the site and restoration of this area to peatland. This forestry removal would be positive in terms of landscape character and would occur through both the operational life of the wind farm and beyond. The proposed wind turbines, access tracks, crane pads borrow pits and substation would collectively contrast to the prevailing simplicity of the moorland slopes, although the restoration of disturbed ground would help to limit the magnitude of change through the operational phase. The proposed abnormal load turning areas would have limited effects on this LCT. They occupy are relatively small areas of land and would be used intermittently for short periods of time. They would not contain any permanent structures, although they would affect land cover. The addition of the proposed development would appear to collectively increase the distribution of wind turbines within the LCT. However, change specifically associated with the proposed development would be relatively localised, visible over parts of the overall LCT, predominately the northern part of the LCT and at the junction of several smaller scale LCT at the north end of Strath Halladale, where there is a transition to the Sweeping Moorland and Flows. It would also be seen in relation to a large scale, open landscape to the south. It is judged that the magnitude of change due to the proposed development would be **Medium**.		
142: Strath – Caithness and Sutherland	• Straths range from fairly straight deeply incised troughs to more winding valleys with a number of minor side glens. • River terraces and hummocky lower side slopes a common feature. • Water is a key characteristic with straths accommodating a central river meandering across the floodplain, often traced by clumps of birch and alder. • Lochs in some straths, where a string of small lochs add to the scenic richness of the lower strath.	There are five occurrences of the Strath – Caithness and Sutherland within the study area. The enclosed nature of this LCT limits visual connections with the surrounding landscape and as a consequence, Kirkton Energy Park would not be visible in four of the straths within the study area. However, Strath Halladale lies almost immediately to the east of the proposed development, and would affect its character. Therefore, the following analysis concentrates on Strath Halladale.	The proposed development would be located immediately to the west of this LCT, towards the more northerly part of Strath Halladale. Theoretically, visibility would extend throughout the majority of the Strath and field survey identifies that there would be limited vegetation that would provide screening. **Figure 7.2f** illustrates theoretical visibility across the LCT. Where the proposed development would be visible, it would generally be seen in isolation, or any visibility of baseline wind farms would be relatively limited due to the enclosure provided by landform. Therefore, Kirkton Energy Park would typically be seen alone, or would be notably more prominent than any other development. The Strath is a relatively intimate	Combining the judgements regarding sensitivity and magnitude of change, the proposed development is predicted to give rise to a **Major adverse** level of effect on this LCT. This is therefore considered to be **Significant**.	No proposed developments at planning application would be visible from Strath Halladale. Therefore, there would be **no change** to the assessment of cumulative landscape effects. Melvich Wind Energy Hub (at EIA Scoping stage) would be clearly visible from the Strath and essentially adjoin the northern edge of Kirkton Energy Park. Dounreay Test and Floating Demo Floating

Landscape Character Type	Key Characteristics	Landscape Value, Susceptibility and Sensitivity to the Proposed Development	Magnitude of Change Due to the Proposed Development (Including Consideration of Baseline Wind Farms)	Level and Significance of Landscape Effects	Magnitude of Change and Potential Effects due to the Proposed Development in Relation to Baseline and Proposed Wind Farms
	• Areas of wetland often present on the strath floors. • Smooth and fairly large pastures the predominant land cover on the floodplains of the straths, commonly enclosed by wire fences. • Semi-improved pastures, heather and grass moorland and coniferous plantations covering lower side slopes. • Increasing extent of moorland and woodland generally further up the straths, where the floodplain narrows and settlement is sparser. • Smaller strip-fields present on often hummocky, lower side slopes and associated with croft houses arranged in linear groups raised on terraces above the floodplain and sometimes backed by woodland. • Some crofts within the Straths more randomly dispersed or staggered on lower hill slopes. • Occasional small farms located in the broader and more fertile parts of the straths. • Settlement generally denser within the lower reaches of many straths, especially at bridging points, on the coast and close to major roads. • Many areas rich in archaeology with cairns, roundhouses, brochs and old field systems, usually found on side slopes. • Abandoned crofts, particularly within the upper straths and in narrow side glens. • Focus in views from roads provided by a number of estate shooting lodges, and clustered, predominantly 19th Century, often estate style buildings. • Narrow roads, commonly aligned along the edge of the floodplain, from which views are strongly channelled by the side slopes. • Rounded Hills often forming prominent edges to the straths with shapely well-defined hills, providing a distinctive skyline and scenic backdrop. • Highly scenic backdrop of mountains often revealed in some of the upper reaches of these straths.	Strath Halladale does not lie within any landscape designation. The western edge of WLA 19 East Halladale Flows abuts and theoretically overlaps the eastern edge of the LCT. However, the characteristics of the Strath broadly differ from the attributes and qualities of the WLA and vice versa. It is a distinctive landscape with the sides of the Strath creating a sense of enclosure that differs from much of the surrounding context. This gives rise to a degree of distinctiveness at a local level, but it is not an unusual or rare landscape type. At the edges it comprises a transitional landscape, particularly as it meets the Sweeping Moorland and Flows to the east, south and west, and the coastal LCTs to the north. It has a quiet, rural and settled character, with a dispersed pattern of properties close to the base of the Strath. The floor of the northern part of the valley adjacent to the site supports mixed farming, mainly grazing with fields separated by post and wire fences and some walls. There are some detracting elements, notably a quarry south west of Loch Mor, south of Melvich, Connagill Substation on the opposite side of the valley further south as well as larger farm outbuildings and the timber processing development at Upper Bighouse. Baseline wind farm developments are not prominent features, with intermittent visibility of Strathy Wind Farms and the Dounreay Tri offshore development from parts of the Strath, particularly the west facing slopes. The River Halladale is fished but otherwise, there is limited recreation value. The LCT is considered to be of **Medium** value Considering the baseline characteristics of the landscape, the character area is considered to have a **High** level of susceptibility to the type of development. This is particularly due to the level of enclosure, small scale of the landscape and features that form references of size/scale. Combining the judgements on the level of susceptibility to change and the value	landscape, with multiple features that provide a sense of scale that could be referenced against the wind turbines. Kirkton Energy Park would comprise a simple, evenly spaced line of tall turbines seen above the Strath with blade movement apparent. The rising landform to the west would provide a degree of separation. The position and orientation of views means it is predicted there would be limited potential for the turbines to overlap. The proposed wind turbines, access tracks, crane pads, borrow pits and substation would collectively contrast to the prevailing simplicity of the rising moorland slopes, although the lower elevation of Strath relative to the site, would limit the prominence of the tracks and crane pads. The restoration of disturbed ground would also help to limit the magnitude of change through the operational phase. In addition, the substation compound (including the substation and control building and battery storage units) is proposed to be positioned on lower ground within the site, where existing topography and vegetation would provide a degree of visual screening. A positive change would result from the removal of the commercial forestry within the northern part of the site, and restoration of this area to peatland. This forestry forms a relatively prominent element above the Strath and its removal would result in greater continuity in the moorland vegetation cover along the ridge. The proposed abnormal load turning areas would have no effects on this LCT. It is judged that the magnitude of change due to the proposed development would be **Substantial**.		Offshore Wind Farm is also likely to visible from parts of Strath Halladale, most likely the northern part of the Strath.

Landscape Character Type	Key Characteristics	Landscape Value, Susceptibility and Sensitivity to the Proposed Development	Magnitude of Change Due to the Proposed Development (Including Consideration of Baseline Wind Farms)	Level and Significance of Landscape Effects	Magnitude of Change and Potential Effects due to the Proposed Development in Relation to Baseline and Proposed Wind Farms
		attributed to this landscape character type, the overall sensitivity is **High – Medium**.			
135: Rounded Hills – Caithness and Sutherland	• Rolling hills forming broad, subtly rounded summits but with some more pronounced hills also occurring, these often featuring steeper slopes along the coast or where truncated by deep glens. • Hills cut by numerous narrow burns and small lochans lie within dips, corries and on plateau summits. • Predominantly dense heather ground cover and moorland grasses, but also some areas of bog. • Fragments of broadleaf woodland in inaccessible locations. • Scarcely settled with a largely uninhabited interior and widely scattered crofts and farms on lower slopes adjoining straths and farmed landscapes. • Narrow glens and lower hill slopes often rich in archaeology with features such as standing stones, brochs and medieval townships. • Wind farms located in more accessible and generally lower rolling hills, either close to extensive forestry or the high voltage transmission line aligned broadly parallel to the south-east Sutherland coast. • Convex character of hill slopes limiting distant visibility and views of the hill tops when travelling through the landscape. • Views into the interior of the hills very restricted. • Strong sense of wild character can be experienced within the more remote and little modified parts of this landscape.	Parts of the LCT lie overlap with SLAs: Bens Griam and Loch nan Clar; The Flow Country and Berriedale Coast; Ben Klibreck and Loch Choire; and Loch Fleet, Loch Brora and Glen Loth. Parts of the LCT are also within the WLAs within the study area: WLA 35 Ben Klibreck – Armine Forest and WLA 36 Causeymire – Knockfin Flows. Therefore, a relatively large proportion of the LCT is designated at a local authority level or lies within a WLA. There is generally a sense of remoteness, particularly within the core parts of the LCT. The LCT is considered to be of **High-medium** value Considering the baseline characteristics of the landscape, the character area is considered to have a **Medium** level of susceptibility to the type of development. Combining the judgements on the level of susceptibility to change and the value attributed to this landscape character type, the overall sensitivity is **Medium**.	The ZTV shows a very limited and fragmented pattern of visibility within the occurrences of this LCT. The closest part of this LCT to the site lies to the south west, at a distance of approximately 14km from the closest turbine. However, Strathy South Wind Farm would be located in the foreground to middle distance of any views towards Kirkton Energy Park, diminishing the relative prominence of the proposed development. Where the proposed development would be visible, it would generally be seen together with existing or consented wind farms, particularly the Strathy and Limekiln Wind Farms, and as part of expansive open views over the Sweeping Moorland and Flows LCT. In addition, the intervening distance would limit size of the proposed development and the extent of any intervisibility would be very limited. The proposed abnormal load turning areas would have no effects on this LCT. It is judged that the magnitude of change due to the proposed development would be **Slight - negligible**.	Combining the judgements regarding sensitivity and magnitude of change, the proposed development is predicted to give rise to a **Minor adverse** level of effect on this LCT. This is therefore considered to be **Not Significant**.	The proposed (planning application stage wind farms) with potential to result in additional cumulative effects are located in the northern and eastern parts of the study area. In the context of this LCT, Kirkton Energy Park would remain a distant element in expansive views separate from the wind farms at planning application stage. Therefore, in addition to the baseline and proposed wind farms, the magnitude of cumulative change of the proposed development is considered to remain **Slight – negligible**. The effect on the LCA would remain **Minor** and **Not Significant** for the Rounded Hills – Caithness and Sutherland LCT.
136: Rocky Hills and Moorland	• Rough landcover with an abundance of scattered rocks, boulders and rock outcrops. • Many lochans sited within rocky-edged cavities contributing to the complexity of the rocky moorland. • Pockets of broadleaf woodland and scrub accentuating the rough texture of the rocky moorland.	Parts of the LCT lie overlap with the Kyle of Tongue NSA, and the Farr Bay, Strathy and Portskerra SLA. Parts of the LCT are also within the Ben Hope – Ben Loyal WLA. Therefore, parts of this LCT are designated at a national and local authority level or lies within a WLA. There is generally a sense of remoteness, particularly within the core parts of the LCT.	The ZTV shows a limited and fragmented pattern of visibility within the occurrences of this LCT. The closest part of this LCT lies to the west, at a distance of approximately 6km from the closest turbine. However, Strathy North Wind Farm would be located in the foreground to middle distance of views towards Kirkton Energy Park from this part of the LCT, diminishing the relative prominence of the proposed development. Other occurrences of this LCT lie to the west of the site, at greater	Combining the judgements regarding sensitivity and magnitude of change, the proposed development is predicted to give rise to a **Moderate – minor** to **Minor adverse** levels of	The key proposed (planning application stage wind farms) with potential to result in additional cumulative effects in relation to Kirkton Energy Park are Armadale Wind Farm and Bettyhill Extension Wind Farm. Both Armadale Wind Farm and Bettyhill Extension Wind Farm are located to the west of the

Landscape Character Type	Key Characteristics	Landscape Value, Susceptibility and Sensitivity to the Proposed Development	Magnitude of Change Due to the Proposed Development (Including Consideration of Baseline Wind Farms)	Level and Significance of Landscape Effects	Magnitude of Change and Potential Effects due to the Proposed Development in Relation to Baseline and Proposed Wind Farms
	• Particularly distinctive rocky hills lying on the fringes of the Kyle of Tongue and at the head of Loch Eriboll. • A number of often prominent rocky hills outcropping along the coast, increasing scenic diversity. • Extensive moorland found in the Cape Wrath area with less exposed bedrock and some large areas of more gently undulating peatland. • Currently largely uninhabited landscape, although abutting more settled coasts and loch shores. • Numerous prehistoric and historic environment features, with concentrations around the straths and coasts. • Highly visible from the coast road around north-west Sutherland. • Provides the foreground to spectacular views over the coast and sea and also inland to the Lone Mountains. • Feeling of containment and seclusion, increased by small knolls, dips and narrow valleys.	The LCT is considered to be of **High** to **High-medium** value Considering the baseline characteristics of the landscape, the character area is considered to have a **High - Medium** level of susceptibility to the type of development. Combining the judgements on the level of susceptibility to change and the value attributed to this landscape character type, the overall sensitivity is **High – Medium**.	distance (over 15km) and the Kirkton Energy Park would be positioned beyond the Strathy Wind Farms. Where the proposed development would be visible, it would generally be seen together with existing or consented wind farms, particularly the Strathy Wind Farms, and as part of expansive open views over the Sweeping Moorland and Flows LCT. In addition, the intervening distance would limit size of the proposed development and the extent of any intervisibility would be very limited. The proposed abnormal load turning areas would have no effects on this LCT. It is judged that the magnitude of change due to the proposed development would be **Slight,** reducing to **Negligible** with greater distance.	effect on this LCT. This is therefore considered to be **Not Significant**.	proposed development, and are both positioned within this LCT. Therefore, these application stage developments would be more prominent than the proposed development, which would be in the adjacent Sweeping Moorland and Flows LCT. Thus, in addition to the baseline and proposed wind farms, the magnitude of cumulative change of the proposed development is likely to reduce as it would be less conspicuous than the wind farms at planning application stage. Therefore the cumulative magnitude of change resulting from the addition of Kirkton Energy Park in relation to the baseline and application stage wind farms is considered to reduce to N**egligible**. The effect on the LCA would reduce to **Minor** and remain **Not Significant** for the Rocky Hills and Moorland LCT.
138: Lone Mountains	• Individual mountains forming landmarks seen widely and at considerable distance across expansive lower-lying Sweeping Moorland and Flows and Cnocan – Caithness & Sutherland. • Mountains possess a distinctive profile, usually comprising steep, sweeping, concave slopes, making them look quite elegant and graceful. • Height of mountains varies, but even the smaller mountains can appear high because of their isolation, steep-sided profiles and when seen in juxtaposition with lower-lying Sweeping Moorland and Flows. • Peaks generally topped by exposed rock and sparse dwarf vegetation which gradually merges into the moorland surrounds. • Ribbons of broadleaf scrub woodland associated with the many water courses that tumble down steep glens.	This LCT occurs in several discrete parts of the study area The occurrences of this LCT typically overlap with the Kyle of Tonge NSA (Ben Loyal and Ben Hope) or the SLAs: Bens Griam and Loch nan Clar (Ben Griam Beg and Ben Griam Mòr), The Flow Country and Berriedale Coast (Morven and Scaraben), and Ben Klibreck and Loch Choire (Ben Klibreck). The exception to this is Ben Stumandadh, which is not covered by any landscape designation. Parts of the LCT are also within the WLAs within the study area: WLA 35 Ben Klibreck – Armine Forest, WLA 36 Causeymire – Knockfin Flows and WLA 38 Ben Hope – Ben Loyal. Therefore, a relatively large proportion of the LCT is designated at a national or local authority level and/or lies within a WLA. There is generally a sense of remoteness, particularly within the core parts	The ZTV shows a limited and fragmented pattern of visibility within the occurrences of this LCT. The closest occurrence lies to the south (Ben Griam Beg and Ben Griam Mòr), at a distance of approximately 16km from the closest turbine. This location has been considered in the assessment of Viewpoint 13: Ben Griam Beg (see **Technical Appendix 7.3**), where a slight magnitude of change was identified due to a combination of the influence of baseline wind farms, the intervening distance and the expansive, open view in which Kirkton Energy Park would be seen. The prominence of Kirkton Wind Farm would be further reduced in relation to the occurrences of the Lone Mountains LCT to the west of the site, due to the Strathy Wind Farms occurring in front of Kirkton Energy Park. This point is also recognised in NatureScot's Scoping Response, identifying that the Kyle of Tongue NSA could be scoped out of the LVIA. The proposed abnormal load turning areas would have no effects on this LCT.	Combining the judgements regarding sensitivity and magnitude of change, the proposed development is predicted to give rise to a **Minor adverse** level of effect on this character area. This is therefore considered to be **Not Significant**.	The key proposed (planning application stage wind farms) with potential to result in additional cumulative effects in relation to Kirkton Energy Park are Armadale Wind Farm and Bettyhill Extension Wind Farm. Both Armadale Wind Farm and Bettyhill Extension Wind Farm are located to the west of the proposed development and would reinforce the pattern of wind farms in the vicinity of the Strathy developments and are both positioned within this LCT. Therefore, in addition to the baseline and proposed wind farms, the magnitude of cumulative change of the proposed development is considered to remain **Slight – negligible**. The effect on the LCA

Landscape Character Type	Key Characteristics	Landscape Value, Susceptibility and Sensitivity to the Proposed Development	Magnitude of Change Due to the Proposed Development (Including Consideration of Baseline Wind Farms)	Level and Significance of Landscape Effects	Magnitude of Change and Potential Effects due to the Proposed Development in Relation to Baseline and Proposed Wind Farms
	• Largely uninhabited, creating a distinct sense of remoteness, although some of its peaks attract significant numbers of hill walkers, especially during the summer months. • Peaks offer extensive views of the surrounding area including the distinctive watery landscapes of the Flows.	of the LCT. The LCT is considered to be of **High** to **High-medium** value Considering the baseline characteristics of the landscape, the character area is considered to have a **High** level of susceptibility to the type of development, particularly due to the level of intervisibility with surrounding LCTs. Combining the judgements on the level of susceptibility to change and the value attributed to this landscape character type, the overall sensitivity is **High**.	It is judged that the magnitude of change due to the proposed development would be **Slight - negligible**.		would remain **Minor** and **Not Significant** for the Lone Mountains LCT. Melvich Wind Energy Hub (at EIA Scoping stage) would be visible from the Lone Mountains LCT and essentially adjoin the northern edge of Kirkton Energy Park, and would reinforce the pattern of wind farm development in the vicinity of the site.
140: Sandy Beaches and Dunes	• Near continuous stretch of sandy beach between the Dornoch Firth and Brora. • Low shingle ridges backing many of these sandy beaches and forming the base for dune systems. • Large sand banks, splayed sandy beach and spit occuring at the mouth of the Dornoch Firth, backed by low dunes and expansive grassy links. • Wide plain covered with gorse, heather and rough grazing land at Cuthill Links in the Dornoch Firth, • Shingle bars at the mouth of Loch Fleet. • Undulating machair abutting dunes and dune slacks along parts of the east Sutherland coast, with golf courses occupying some of these areas. • Post-glacial raised shorelines backed by relict cliffs to the north of Brora with the sandy beach being narrow in this area. • Long gently curved sandy arcs of Sinclairs Bay and Dunnet Bay in Caithness. • Striking complex landscape pattern at Torrisdale Bay. • The long sandy beach at Balnakeil, with extensive dune system and machair. • Remoteness of Sandwood Bay in west Sutherland. • Focus for recreation with camp sites, caravan parks and car parks located close to more accessible areas of coast with golf courses present where links and machair areas are more extensive.	There are four occurrences of the Sandy Beaches and Dunes LCT within the study area. These Sandy Beaches and Dunes are typically enclosed by the landform and as a consequence Kirkton Energy Park would not be visible in three of the occurrences of this LCT within the study area. However, the Sandy Beaches and Dunes at Melvich Bay lies approximately 3.2km to the north of the site, and as consequence the proposed development would affect its character. Therefore, the following analysis concentrates on the Sandy Beaches and Dunes at Melvich Bay. The Sandy Beaches and Dunes at Melvich Bay lie within the Farr Bay, Strathy and Portskerra SLA. It is an attractive landscape with recreational activity. A Core Path connects Bighouse with Melvich and helps to facilitate access to the beach and there is a car park to the west of Melvich. There is a range of tourist accommodation available in Melvich including hotels, bed and breakfast accommodation, and camping sites. This occurrence of the LCT is not remote or particularly wild, due to its proximity to Melvich, but the dunes and beaches are natural features of the landscape. Baseline wind farm developments are not prominent features, with the consented Dounreay Tri the only development predicted to be visible from the	The proposed development would be located approximately 3.2km to the south of this LCT. The ZTV shows visibility from the LCT, although this is restricted to turbine blades (see **Figure 7.2f**). The nature of the predicted visibility of the proposed development is also demonstrated by Viewpoint 5: Bighouse (**Technical Appendix 7.3**), which is close to this LCT and predominately shows predicted visibility of turbine blades (with the hubs of two turbines just visible). Visibility is predicted to occur within the southern part of the LCT, with this most likely to be experienced from the sand dunes south of the beach. Where the proposed development would be visible, it would generally be seen in isolation, or any visibility of baseline wind farms would be relatively limited due to the enclosure provided by landform. The exception to this would be the consented Dounreay Tri turbines, which would be positioned approximately 10km from the coastline at the closest point and seen in views to the north. Therefore, Kirkton Energy Park would typically be seen alone, or would be notably more prominent than any other development. It would be seen in views looking inland, away from the beaches and dunes. The LCT is a relatively small scale landscape, albeit with a strong relationship with the coastline and sea. The proposed abnormal load turning areas would have no effects on this LCT. It is judged that the magnitude of change due to the proposed development would be **Medium**.	Combining the judgements regarding sensitivity and magnitude of change, the proposed development is predicted to give rise to a **Moderate adverse** level of effect on this LCT. In the case of this LCT this effect is considered to be **Not Significant** due to the primary focus and association with the coastline and sea to the north, away from the proposed development.	No proposed developments at planning application are predicted to be visible from the Sandy Beaches and Dunes LCT at Melvich. Therefore, there would be **no change** to the assessment of landscape effects. Melvich Wind Energy Hub (at EIA Scoping stage) is likely to be clearly visible from this occurrence of the the LCT and essentially adjoin the northern edge of Kirkton Energy Park. Dounreay Test and Floating Demo Floating Offshore Wind Farm is also likely to visible from parts of the LCT, most likely the northern part.

Landscape Character Type	Key Characteristics	Landscape Value, Susceptibility and Sensitivity to the Proposed Development	Magnitude of Change Due to the Proposed Development (Including Consideration of Baseline Wind Farms)	Level and Significance of Landscape Effects	Magnitude of Change and Potential Effects due to the Proposed Development in Relation to Baseline and Proposed Wind Farms
	• Many small crofting communities located on the fringes of beaches, particularly in north and west Sutherland. • Castles with historic gardens and designed landscapes, as well as prehistoric brochs and cists, cairns, and hut circles. • Strong sense of space, light and exposure, and extensive visibility on the larger and more open stretches of sandy beach. • Contained smaller beaches on the north coast with views focused along the beach to rocky headlands and out to sea to near shore islands. • Strong contrast of the white/pale pink sands of the beaches in the north-west with surrounding darker cliffs and moorland. • Wildness character to of all these seascapes, more intensely experienced on the more remote beaches along the north and west coasts of Sutherland.	LCT. The LCT is considered to be of **High – Medium** value Considering the baseline characteristics of the landscape, the character area is considered to have a **Medium** level of susceptibility to the type of development. This is particularly due to the much greater connection with the coastline and sea, rather than landscapes inland to the south. Combining the judgements on the level of susceptibility to change and the value attributed to this landscape character type, the overall sensitivity is **High – Medium**.			
141: High Cliffs and Sheltered Bays	• Duncansby Head, with high, fissured and blocky cliffs, jagged asymmetric rock stacks, arches and geos. • Dunnet Head, with towering cliffs edged by low rocky reefs. • Occasional inlets and coves, often with very deep and sheltered waters, and sometimes containing tiny harbours tucked between cliffs and not readily visible from the main coast road and settlement. • Harbours on the east Caithness coast which have a strong association with settlements which are perched above the cliff. • Moorland largely abutting this LCT which is particularly open and sweeping to the east and north within Caithness. • The most prominent and exposed headlands marked by lighthouses. • Exhilarating experience of being precariously perched upon a high edge on the cliff tops, offering open elevated views and a perception of huge space. • Views of turbulent currents at the juncture of the Pentland Firth and North Sea, heightening the sense of wildness experienced from the headland.	This LCT occurs intermittently along the coastline within the study area. The High Cliffs and Sheltered Bays within the study area predominately lie within the Kyle of Tongue NSA, the Farr Bay, Strathy and Portskerra SLA and Dunnet Head SLA. Two sections of the LCT, east of Melvich and west of Scrabster do not lie within any landscape designations. It is a dramatic and distinctive LCT with strong focal points, in the cliffs, headlands and lighthouses. There is a general absence of development and strong sense of naturalness. The cliff tops offer elevated open views, particularly along the coastline and towards the sea. The LCT is considered to be of **High** to **High – Medium** value Considering the baseline characteristics of the landscape, the character area is considered to have a **Medium** level of susceptibility to the type of development. This is particularly due to its strong connection and functional relationship with the coastline and sea, rather than landscapes inland to the south. Combining the judgements on the level of susceptibility to change and the value	The proposed development would be located at very variable distances from this LCT. The closest section is west of Melvich, with the nearest turbine lying approximately 4.7km to the south of this LCT. The ZTV shows limited and fragmented visibility from the LCT overall. The part of the LCT where the proposed development is predicted to be more visible is the east facing coastline between Strathy and Strathy Point. The nature of visibility of the proposed development is also demonstrated by Viewpoint 9: Totegan, near Strathy Point, which is close to this LCT and shows predicted visibility of turbine blades and blade tips. Where the proposed development would be visible, it would generally be seen in conjunction with other wind farms. This would include the Strathy Wind Farms in the vicinity of Strathy Point and the wind turbines at Forss and Baillie Wind Farms for more easterly occurrences of this LCT. The Dounreay Tri Wind Turbines would be apparent from this LCT but the relative size of this consented development is limited, and it would be positioned in a very different context to Kirkton Energy Park. Where the proposed development is apparent, it would form a small component of the overall view and typically away from the primary focus of this LCT. The proposed abnormal load turning areas would have no effects on this LCT.	Combining the judgements regarding sensitivity and magnitude of change, the proposed development is predicted to give rise to a **Moderate-minor adverse** level of effect on this LCT. In the case of this LCT this effect is considered to be **Not Significant** due to its primary focus and association with the coastline and sea to the north, away from the proposed development.	The key proposed (planning application stage wind farms) with potential to result in additional cumulative effects in relation to Kirkton Energy Park are Armadale Wind Farm and Bettyhill Extension Wind Farm. The proposed Forss Extension 3 development is also located close to the coastline, but this would comprise a relatively limited addition to the existing wind turbines at this location. Both Armadale and Bettyhill Extension Wind Farms would be located to the west of the proposed development and would reinforce the pattern of wind farms in the vicinity of the Strathy developments. These application stage developments are both positioned within this LCT. Therefore, in addition to the baseline and proposed wind farms, the magnitude of cumulative change of the proposed development is considered to remain **Slight**. The

Landscape Character Type	Key Characteristics	Landscape Value, Susceptibility and Sensitivity to the Proposed Development	Magnitude of Change Due to the Proposed Development (Including Consideration of Baseline Wind Farms)	Level and Significance of Landscape Effects	Magnitude of Change and Potential Effects due to the Proposed Development in Relation to Baseline and Proposed Wind Farms
	• The absence of development along the remote stretches of coast and a strong sense of naturalness creating a wild landscape character.	attributed to this landscape character type, the overall sensitivity is **High – Medium**.	It is judged that the magnitude of change due to the proposed development would be **Slight**.		effect on the LCA would remain **Moderate - Minor** and **Not Significant** for the High Cliffs and Sheltered Bays LCT. Melvich Wind Energy Hub (at EIA Scoping stage) is likely to be clearly visible from this occurrence of the LCT and essentially adjoin the northern edge of Kirkton Energy Park. It is also likely that Dounreay Test and Floating Demo Floating Offshore Wind Farm would be visible from much of this LCT due to its position in the adjacent sea.
143: Farmed Lowland Plain	• A generally open, low-lying plain, gently undulating to form shallow broad valleys, which are often filled with lochs and mosses, and subtle low ridges. • Occasional smooth hills rise above the more low-lying plain forming local landmarks. • The broad and shallow valley of the River Wick forming the largest of a series of valleys generally aligned south-east/north-west across the plain. • Agriculture the predominant land cover. • More intensively managed farmland near the coast around Thurso and Wick, and close to Loch Watten. • Distinctive Caithness flagstone fences in some parts, creating low, sharp edges to fields. • Sparse woodland, mainly comprising small angular coniferous plantations planted for shelter on farms. • Larger conifer woodlands located at the transition with the Sweeping Moorland and Flows standing out where they are planted on poorer wetter ground on low ridges. • Farm buildings and houses forming focal points within the landscape. • Occasional loose clusters of croft houses located on more marginal upper slopes and near the coast. • A number of historic environment features, including conspicuous castles, Baronial	Within the study area there are no landscape designations associated with the Farmed Lowland Farmland Plain LCT. It is a settled, working agricultural landscape. It is typically an open landscape and there are dramatic views, particularly towards the coastline in places as well as towards the Lone Mountains. There are also features and elements that create a degree of distinctiveness. The LCT is considered to be of **Medium** value Considering the baseline characteristics of the landscape, the character area is considered to have a **Medium** level of susceptibility to the type of development. This is particularly due to the scale of the landscape, simple horizontal form and the presence of existing wind farms and overhead power lines. Combining the judgements on the level of susceptibility to change and the value attributed to this landscape character type, the overall sensitivity is **Medium**.	The proposed development would be located to the west of this LCT, with the closest part to the west of Reay, approximately 7.6km from the nearest proposed wind turbine. Overall visibility of the proposed development from this LCT is predicted to be limited. The blade tip ZTV (**Figure 7.2f**) shows areas of theoretical visibility from locations closer to the coastline. However, comparing this with the hub height ZTV (**Figure 7.2c**) demonstrates this visibility would be largely limited to turbine blades. Where it would be seen, baseline wind farms form a key component of the landscape. This particularly relates to Baillie Wind Farm and the wind turbines at Forss, which are prominent elements in the north western part of the Farmed Lowland Plain. This pattern of baseline wind farms is reinforced by the consented Limekiln Wind Farm. The key areas where these baseline turbines are also broadly coincidental with the areas that Kirkton Energy Park would be seen. In this context the proposed development would comprise a relatively limited change. Locations within the Farmed Lowland Plain have also been considered in the assessment of Viewpoints 14: Forss and Viewpoint 19: A836, Balmore (see **Technical Appendix 7.3**). These demonstrate the limited prominence of the proposed development, and no significant effects are predicted at either location. The proposed abnormal load turning areas would no effects on this LCT. It is judged that the magnitude of change due to the proposed development would be **Slight**.	Combining the judgements regarding sensitivity and magnitude of change, the proposed development is predicted to give rise to a **Moderate-minor adverse** level of effect on this LCT. In the case of this LCT this effect is considered to be **Not Significant**, particularly due to the limited visibility of the proposed development and relative prominence of the baseline wind farms.	The key proposed (planning application stage wind farms) with potential to result in additional cumulative effects in relation to Kirkton Energy Park for this LCT are closely related to the baseline pattern of wind farms i.e. at Forss, Causeymire and Hill of Stroupster. Therefore, in addition to the baseline and proposed wind farms, the magnitude of cumulative change of the proposed development is considered to remain **Slight**. The effect on the LCA would remain **Moderate-minor** and **Not Significant** for the Farmed Lowland Plain LCT. The key developments at EIA Scoping stage are Cairnmore Hill Wind Farm and Melvich Wind Energy Hub. Cairnmore Hill Wind Farm would be more closely related to the existing Baillie and Forss developments. Melvich Wind Energy Hub has the potential to increase the prominence of wind turbines in the vicinity of the site, but these would remain less conspicuous than the baseline wind farms on the western edge of this LCT.

Landscape Character Type	Key Characteristics	Landscape Value, Susceptibility and Sensitivity to the Proposed Development	Magnitude of Change Due to the Proposed Development (Including Consideration of Baseline Wind Farms)	Level and Significance of Landscape Effects	Magnitude of Change and Potential Effects due to the Proposed Development in Relation to Baseline and Proposed Wind Farms
	mansions and tall 'Lairds' houses, usually with broadleaf shelter woods planted around them. • Roads reinforce the settlement pattern, often following the field and property boundaries, running straight and then swinging around sharp corners. • A number of large settlements, including the towns of Thurso and Wick, situated on the coast, as well as several smaller settlements. • Many historic features, including brochs and cairns, dotted across farmland and situated on hills within, or adjacent to, this area. • Small groups of large wind turbines sited on some of the low ridges and hills and prominent visibility of larger wind farms in adjacent Landscape Character Types. • Extensive views due to the openness of the landscape, and the clarity of northern air and light. • Dramatic views from the northern part of this landscape to Dunnet Head and the distant Orkney islands, and views from the A9 on the western edge of this landscape of the Lone Mountains of Morven and Scaraben seen across the low-lying Sweeping Moorland and Flows.				
144: Coastal Crofts and Small Farms	• Narrow, settled and farmed coastal fringe with subtle variations in topography, from long stretches of strongly contained coastal shelves and raised beaches, to smaller pockets at river mouths and squeezed between dunes and areas of Cnocan – Caithness & Sutherland. • Pastures and occasional arable fields, most often divided by post and wire fences, with the division of fields marked by crop colour and texture rather than boundaries. • Low stone walls enclosing fields on the shelf above the High Cliffs and Sheltered Bays between Dunbeath and Wick. • Little woodland within the more exposed east and north Caithness coasts. • Small woodlands and clumps of trees present at the outlet of more sheltered	This LCT occurs intermittently along the coastline within the study area, associated with the sporadic small settlements. The Coastal Croft and Small Farms within the study area predominately lie within the Kyle of Tongue NSA, the Farr Bay, Strathy and Portskerra SLA and Dunnet Head SLA. There are distinctive small settlements, with a strong relationship with the coastline and sea. The LCT is considered to be of **High** to **High – Medium** value Considering the baseline characteristics of the landscape, the character area is considered to have a **Medium** level of susceptibility to the type of development. This is particularly due to its much greater connection and functional relationship with the coastline and sea, rather	The proposed development would be located at very variable distances from this LCT. The closest occurrence is at Melvich, with the nearest turbine lying approximately 2.3km to the south of this LCT. The ZTV shows limited and fragmented visibility from the LCT overall, with no visibility predicted for the majority of the LCT. The key exceptions to this are Melvich and Portkerra, as well as Strathy. At Melvich and Portskerra there is predicted visibility from small parts of the LCT, but this is largely restricted to turbine blades. Locations within Melvich and Portskerra have also been considered in the assessment of Viewpoints 3: on the south east edge of Melvich and Viewpoint 7: Portskerra (see **Technical Appendix 7.3**). These demonstrate the limited prominence of the proposed development, and no significant effects are predicted at either location. At Strathy there is predicted visibility of the proposed wind turbines. Again, this is largely restricted to turbine blades. The area of theoretical visibility is also associated with the part of	Combining the judgements regarding sensitivity and magnitude of change, the proposed wind farm is predicted to give rise to a **Moderate** to **Moderate-minor adverse** level of effect on this LCT. In the case of this LCT this effect is considered to be **Not Significant** due to the primary focus and association with the coastline and sea to the north, away from the proposed development.	The key proposed (planning application stage wind farms) with potential to result in additional cumulative effects in relation to Kirkton Energy Park are Armadale Wind Farm and Bettyhill Extension Wind Farm. The proposed Forss Extension 3 development is also located close to the coastline, but this would comprise a relatively limited addition to the existing wind turbines at this location. Both Armadale and Bettyhill Extension Wind Farms would be located to the west of the proposed development and would reinforce the pattern of wind farms in the vicinity of the Strathy developments. Both these

Landscape Character Type	Key Characteristics	Landscape Value, Susceptibility and Sensitivity to the Proposed Development	Magnitude of Change Due to the Proposed Development (Including Consideration of Baseline Wind Farms)	Level and Significance of Landscape Effects	Magnitude of Change and Potential Effects due to the Proposed Development in Relation to Baseline and Proposed Wind Farms
	straths or along the eastern shores of Kyle of Tongue and Loch Eriboll. • Settlement most concentrated where this Landscape Character Type broadens at the mouths of major rivers along the east coast, where larger farms and crofts are concentrated. • Small, hunkered-down croft houses and outbuildings loosely clustered or sometimes aligned in a linear fashion on the top of terraces or ridges above the coast or a river floodplain. • More dispersed settlement pattern on the east coast to the north of Brora. • Newer housing most evident to the south of Brora with larger modern houses often infilling spaces between older croft houses and contrasting with the size and form of these original buildings. • A number of settlements, often located at bridging points and at the junction with the straths, many with harbours particularly on the east coast of Sutherland and Caithness. • Major communications routes on the east coast including the A9, the railway and transmission line aligned along the edge of this landscape. • A number of historic sites including churches, castles, mills and cemeteries. • Highly visible landscape, seen from major roads and, on the east Sutherland coast, the railway. • Complex visual composition of views tending to focus on the detail of houses, field patterns and crops, yet with the wider context of backdrop hills and sea adding diversity.	than landscapes inland to the south, where the proposed wind farm would be located. Combining the judgements on the level of susceptibility to change and the value attributed to this landscape character type, the overall sensitivity is **High – Medium**.	the LCT that extends along the eastern side of the headland towards Strathy Point. This part of the LCT has been considered in the assessment of Viewpoint 7: Totegan, near Strathy Point (see **Technical Appendix 7.3**), where a moderate, not significant, effect on landscape character is predicted to occur. There is also limited predicted visibility at Armadale, but this would be associated with a small part of the LCT and the ZTV shows this would be limited to turbine blades. Where the proposed development would be visible, it would generally be seen in conjunction with other wind farms. This would include the Strathy Wind Farms in the case of Armadale, and the Dounreay Tri development in the case of Melvich and Portskerra. The eastern proposed abnormal load turning area adjacent to Melvich would be within this LCT and would have adverse effects. The area of hardstanding would be clearly visible from a small part of the settlement and LCT. Whilst it would be a detracting element, this would be in the context of the built form of the settlement, albeit a change from the current use of this area for semi-improved grazing. This abnormal load turning area has the potential to result in a localised **Medium** magnitude of change within the LCT. Overall, it is judged that the magnitude of change due to the proposed wind farm would be **Slight**.	Combining the judgements regarding sensitivity and magnitude of change, the proposed abnormal load turning area is predicted to give rise to a **Moderate adverse** level of effect on this LCT. In the case of this LCT this effect is considered to be potentially **Significant** in the context of the limited extent of this occurrence of the LCT. The effects associated with the abnormal load turning area could be mitigated by the detailed design of this element of the proposed development.	application stage developments would be positioned within this LCT. Therefore, in addition to the baseline and proposed wind farms, the magnitude of cumulative change of the proposed wind farm is considered to remain **Slight**. The effect on the LCA would remain **Moderate** to **Moderate - Minor** and **Not Significant** for the Coastal Crofts and Small Farms LCT. Melvich Wind Energy Hub (at EIA Scoping stage) is likely to be clearly visible from this occurrence of the LCT and essentially adjoin the northern edge of Kirkton Energy Park. Dounreay Test and Floating Demo Floating Offshore Wind Farm is also likely to visible from parts of the LCT, most likely the northern part.

Effects on Landscape Designations and Wild Land Areas

7.101 Landscape designations form an integral part of assessing landscape sensitivity, specifically the assessment of landscape value. Therefore, they have been considered as an integral part of the assessment of potential landscape effects set out within **Table 7-10** above. This analysis comprises a summary of the findings of this assessment in relation to the landscape designations in the study area.

7.102 There are multiple relevant designations within the study area. The key considerations in the LVIA relate to the SLAs and the WLAs. Although the Kyle of Tongue NSA is within the study area, NatureScot identified that this NSA did not need to be covered in the LVIA due to a combination of the intervening distance, limited visibility of the proposed development.

7.103 There are several SLA within the study area:

- Farr Bay, Strathy and Portskerra;
- Bens Griam and Loch nan Clar;
- Dunnet Head;
- The Flow Country and Berriedale Coast;
- Ben Klibreck and Loch Choire; and
- Eriboll East and Whiten Head.

7.104 There are common factors that are applicable to all these SLAs, which are considered in the above assessment. Theoretical visibility of the proposed development from all the SLAs is fragmented and limited in extent. Whilst there would be intervisibility between the proposed development and the SLAs, this would typically be in the context of broad open views and would be a relatively limited change in the distance, the exception to the being in views from the Farr Bay, Strathy and Portskerra SLA which is described in more detail below. Further analysis is provided below in relation to The Flow Country and Berriedale Coast SLA and Farr Bay, Strathy and Portskerra SLA as both lie within LCTs where significant effects have been identified as a result of the proposed development

7.105 The Flow Country and Berriedale Coast SLA is within the Sweeping Moorland and Flows LCT, where a significant landscape effect as a result of the proposed development has been assessed. However, this significant effect would relate to the parts of LCT closer to Kirkton Energy Park and not the SLA. The Flow Country and Berriedale Coast SLA is located over 22km from the proposed development and the ZTV shows that theoretical visibility of the proposed development would be both small in extent and fragmented. The potential effects on a location within the SLA have been considered in the assessment of Viewpoint 15: Ben Alisky (see **Technical Appendix 7.3**), where a **Slight** magnitude of change has been predicted for a medium sensitivity landscape, together with a **Moderate – minor** and **Not Significant** effect on landscape character. This was identified due to a combination of the influence of baseline wind farms, the intervening distance and the expansive, and open view in which Kirkton Energy Park would be seen. It is considered that the proposed development result

in a **Slight** magnitude of change in relation to The Flow Country and Berriedale Coast SLA and a **Moderate – Minor** and **Not Significant** effect.

7.106 The Farr Bay, Strathy and Portskerra SLA is positioned much closer to the proposed development than the other SLAs, with the closest part of the designation located approximately 3.5km to the north. The assessment of landscape effects at viewpoints has identified the potential for significant effects to occur in relation to the Sandy Beaches and Dunes at Bighouse (Viewpoint 5) and the Coastal Crofts and Small Farms at Totegan (Viewpoint 9), both of which are located within the SLA and 10km of the proposed wind farm. No significant effects are predicted in relation to other LCTs that lie within the SLA. In addition, one of the potential abnormal load turning areas is located within the SLA. Whilst the effects of this would be localised, it would alter land use and land cover within the SLA, affecting one of the special qualities. Therefore, it is predicted that there would be a **Medium** magnitude of change, in relation to a High Medium sensitivity landscape, and **Moderate** and potentially **Significant** adverse effect on parts of the Farr Bay, Strathy and Portskerra SLA closest to Melvich. However, the effects associated with the abnormal load turning area could be mitigated by the detailed design of this element of the proposed development.

7.107 Four Wild Land Areas (WLA) are located within the 40km study area:

- WLA 35 Ben Klibreck – Armine Forest;
- WLA 36 Causeymire – Knockfin Flows;
- WLA 38 Ben Hope – Ben Loyal; and
- WLA 39 East Halladale Flows.

7.108 The assessment scope for WLA was established through consultation with NatureScot, which identified a requirement for a specific detailed assessment of the effects of Kirkton Energy Park on WLA 39 East Halladale Flows. The findings of this assessment are contained within **Technical Appendix 7.5**.

7.109 Kirkton Energy Park would add new, tall vertical structures close to the western edge of East Halladale Flows WLA that would be clearly visible from parts of the WLA and further erode some aspects of its key attributes/qualities. It would reinforce the pattern of wind farm development in the landscape surrounding the WLA, contributing to the way such development surrounds the WLA to the west, north and east, forming visible and prominent structures. It would also add to the generally settled pattern and foci to the north of the WLA. However, it would be contributing to a pattern of development that forms an established part of the baseline rather than adding distinctly different structures. Whilst it would result in significant effects on parts of the WLA, these would relate to areas up to between 8km and 10km. It is also notable that views to the south would be unaffected by the proposed development, with these being the directions in which a sense of wildness is most strongly expressed. Overall, Kirkton Energy Park would not fundamentally alter the key attributes and qualities and the East Halladale Flows, when considered in relation to the overall WLA and its baseline context.

VISUAL ASSESSMENT

Introduction

7.110 The effects of the proposed development on visual amenity within the study area are considered in respect of the main visual receptor groups identified, namely:

- residents of settlements;
- users of transport routes;
- walkers on long distance recreational routes, core paths and hill walkers; and
- users of other recreational resources.

7.111 Individual and groups of residential properties within 2km of the proposed development are assessed in **Technical Appendix 7.4: Residential Visual Amenity Assessment**.

7.112 Visual impacts have been assessed through review of the ZTVs (**Figures 7.2a** to **7.2h**); and sequential route analysis (**Technical Appendix 7.6**); field survey as well as the assessment of effects at the 19 agreed viewpoints, (**Technical Appendix 7.3: Viewpoint Assessment**). It should be noted that the viewpoints were selected to be representative of the main landscape and visual receptors in the study area. As a consequence of the relatively high concentration of visual receptors north and east of the site there are several viewpoints in close proximity and the predicted effects at these locations should not be considered as indicative of the same level of effect across the whole study area.

7.113 As in respect of effects on landscape character, the assessment of the effects of the proposed development on visual amenity has been assessed on the basis of the addition of the proposed development in the context of the existing or consented wind farms. Where considered appropriate, further assessment has been undertaken in respect of the proposed wind energy developments (at planning application stage) included in the cumulative assessment.

Viewpoint Assessment

7.114 Selection of the visual receptors and representative viewpoints followed GLVIA and was informed by the ZTV. Whilst the proposed development would be visible by people in many different parts of the study area, a selection of specific visual receptors was based on assessing whether the proposed development would be likely to result in significant visual effects on these receptors. This process resulted in identification of the key visual receptors summarised in **Table 7-11** below.

7.115 Representative viewpoints are selected to represent the range of visual baseline conditions across a study area and the predicted visual effects of a proposed development on key visual receptors. They cannot represent every unique visual characteristic, nor every unique visual effect of a proposed development, but they do inform judgements regarding the predicted visual effects which would affect various groups of people in different places and undertaking different activities.

7.116 Assessment of the visual effects of the proposed development on visual receptors draws on the detailed assessment of representative viewpoints. Nineteen viewpoints are included in the viewpoint assessment and are illustrated in Volume 3, **Figures 7.5 - 7.26** (NatureScot Visualisations) and **Figures 7.27 – 7.49** (THC Visualisations). The locations of these representative viewpoints were agreed with THC as part of the scoping of the LVIA. Two viewpoints were subsequently scoped out from detailed assessment: Viewpoints 16 and 17, due to the comments made by NatureScot in relation to the limited and distant predicted visibility of the proposed development from the Kyle of Tongue NSA, in which these two viewpoints are located, together with the presence of existing wind energy development in the intervening landscape.

7.117 The viewpoint assessment assesses the potential effects of the proposed development in the context of baseline wind farms and then also in relation to the addition of proposed wind farms at planning application stage. The only viewpoint where a different level of effect was identified when planning application wind farms are taken into account is Viewpoint 10, where the magnitude of change is predicted to reduce from slight to negligible due to the potential addition of Armadale Wind Farm in the foreground of the view. Accordingly, to simplify the detail presented in **Table 7-12**, this presents the predicted effects resulting from Kirkton in relation to the baseline wind farm developments.

7.118 In addition to the visualisations presented in Volume 3, wirelines have been prepared to assess the potential effects on heritage assets. These are described in **Chapter 11: Cultural Heritage and Archaeology**, and presented in Volume 3d. Potential visual receptors within the GDLs within the study area were scoped out of the LVIA due to either there being no potential visibility of the proposed development or, in the case of the Castle of Mey (Barrowgill Castle), a combination of limited predicted visibility and the intervening distance (over 40km from the closest wind turbine).

Table 7-12: Summary of Effects on Visual Amenity as Assessed at Each Viewpoint

VP	Viewpoint Location	Visual Receptor Type	Approx. distance to the nearest turbine (km)	Direction of view to proposed development	Value	Susceptibility	Sensitivity	Magnitude of change	Visual Effect
VP1	A897, Strath Halladale, Achiemore	Residents Road users	1.5	North west	High Medium	High Medium	High Medium	Substantial	Major Major - moderate
VP2	A837, Goval, Strath Halladale	Residents Road users	2.2	South west	High Medium	High Medium	High Medium	Substantial	Major Major - moderate
VP3	A836, south east edge of Melvich	Residents, Caravan/camp site Road users	3.1	South	High High	High Medium	High High - medium	Slight	Moderate Moderate - minor
VP4	A836, junction to Bighouse	Road users	3.7	South west	High	Medium	High - medium	Substantial	Major-moderate

VP	Viewpoint Location	Visual Receptor Type	Approx. distance to the nearest turbine (km)	Direction of view to proposed development	Value	Susceptibility	Sensitivity	Magnitude of change	Visual Effect
VP5	Bighouse	Residents Walkers (Core Path)	3.9	South	High Medium	High High	High High - Medium	Medium	Major - Moderate Major - Moderate
VP6	Portskerra	Residents	4.6	South	High	High	High	Negligible	Minor
VP7	A836, west of Strathy	Road users	6.9	South east	High	Medium	High-medium	Slight	Moderate
VP8	Beinn Ratha	Walkers	7.4	West	High - medium	High	High	Medium	Major-moderate

VP	Viewpoint Location	Visual Receptor Type	Approx. distance to the nearest turbine (km)	Direction of view to proposed development	Value	Susceptibility	Sensitivity	Magnitude of change	Visual Effect
VP9	Totegan, near Strathy Point	Visitors to Strathy Point Walkers Residents (all same sensitivity)	9.1	South east	High	High	High	Medium	Major - moderate
VP10	A836, west of Armadale	Road users	10.8	South east	High	Medium	High - medium	Slight	Moderate - minor
VP11	Observation tower, RSPB Forsinard Flows Reserve	Visitors to RSPB reserve Road users	15.8	North	Medium Medium	High – medium Medium	High-medium Medium	Negligible	Minor Minor

VP	Viewpoint Location	Visual Receptor Type	Approx. distance to the nearest turbine (km)	Direction of view to proposed development	Value	Susceptibility	Sensitivity	Magnitude of change	Visual Effect
VP12	Northern edge of Causeymire – Knockfin Flows Wild Land Area	Walkers Train passengers (acknowledged but not specifically assessed)	16	North west	High - medium	High	High	Slight	Moderate - minor
VP13	Ben Griam Beg	Walkers	17.4	North east	High - medium	High	High	Slight	Moderate
VP14	A836, Forss	Residents Road users	19.5	South west	High High	High Medium	High High-medium	Slight	Moderate Moderate - minor
VP15	Ben Alisky	Walkers	25.4	North west	High - medium	High	High	Slight	Moderate

VP	Viewpoint Location	Visual Receptor Type	Approx. distance to the nearest turbine (km)	Direction of view to proposed development	Value	Susceptibility	Sensitivity	Magnitude of change	Visual Effect
VP16	Achnahuaigh,	Potentially residents Road users	30.4	East					
VP17	Ben Loyal	Walkers	31.5	North east					
VP18	Dunnet Head	Visitors to local point of interest Walkers Ordnance Survey marked viewpoint	36	South west	High	High	High	Negligible	Moderate - minor
VP19	A836, Balmore	Residents Road users	15	South west	High	High Medium	High High-medium	Negligible	Moderate – minor Minor

Predicted Effects on Residential, Travelling and Recreational Receptors

7.119 The following sections of the LVIA provide an analysis of potential effects on visual receptors within the study area. This draws on the findings of the landscape assessment and viewpoint assessment presented in **Technical Appendix 7.3**. It considers the visual effects that would be experienced by people within settlements, whilst travelling along roads, and when undertaking recreation.

Residential Receptors

7.120 In broad terms the settlement density within the study area is low, consisting of the towns of Thurso and Hallkirk together with multiple villages and smaller settlements such as Melvich, Portskerra, Strathy, Armadale, Reay and Bettyhill. In addition, there are areas of individual and more dispersed properties.

7.121 Relating the ZTVs (see **Figures 7.2a** to **7.2d**) to the settlements pattern it is clear that the majority of the area of theoretical visibility of the proposed development is associated with parts of the study area where there is very limited or no settlement, such as the Sweeping Moorland and Flows. However, there is predicted visibility of Kirkton Energy Park from the settlements of Melvich, Portskerra, Strathy and Totegan, Armadale, together with a more dispersed pattern of properties in the vicinity of Shebster and Upper Dounreay. In addition, there is a dispersed pattern of properties with predicted visibity within Strath Halladale between Bighouse to the east of Melvich at the northern end of the Strath and the vicinity of Trantlebeg to the south. This dispersed group of properties within Strath Halladale is where the greatest effects on visual amenity in relation to residential receptors would occur, and is therefore considered first in the below analysis. The following analysis describes the predicted effect of Kirkton Energy Park in relation to the residents of these settlements and properties.

7.122 As views from houses are static, the same view being obtained on a daily basis, the value attached to these views is considered to be High (**Table 7-2**: Definitions of Level of Susceptibility of Visual Receptors). Susceptibility to the proposed development in views from residential buildings is judged to be High because residents are considered to be concerned about views from their properties and therefore susceptible to changes in these views. The overall sensitivity of all residential receptors therefore is regarded as High.

Strath Halladale

7.123 Strath Halladale lies to the east of Kirkton Energy Park. Residential properties within the Strath are dispersed, in a linear pattern following the A897 on the eastern side of the Strath and, to a lesser degree, the minor roads on the west side. The distance between these properties and the proposed wind turbines, the elements of the proposed development that would have the greatest visual effects, is variable. The properties between the A897 and Craigtown are closest to the proposed wind turbines, lying at between approximately 1km and 2.4km. The potential visual effects on these closest properties are assessed in the Residential Visual Amenity Assessment (**Technical Appendix 7.4**).

7.124 The ZTVs (see **Figures 7.2a** to **7.2d**) illustrate visibility of the proposed development throughout much of Strath Halladale, particularly between Bighouse and Trantlebeg. This visibility is mainly associated with the eastern side of the Strath. On the west side of the Strath the theoretical visibility

of the proposed development is more constrained due to the local landform rising from the floor of the Strath. However, there are some exceptions, where a greater proportion of the proposed development would be seen from locations on the west side of the Strath, such as in the vicinity of Kirkton.

7.125 Viewpoints 1 and 2 (see **Figures 7.5** and **7.6**) are both positioned on the east side of the Strath and demonstrate the extent of the proposed development that would be seen from these locations. The full array of the wind turbines would be visible, comprising a single row of regularly spaced vertical structures extending above the horizon, with associated blade movement clearly apparent. There would be some visibility of the borrow pits, access tracks crane pads and substation compound, although these would be less conspicuous due to their smaller size and the relative (lower) elevation of the residential properties. The substation compound would be positioned on lower ground, adjacent to existing areas of trees and shrubs, which would limit its prominence in the landscape.

7.126 Viewpoint 5 is located at Bighouse at the northern end of Strath Halladale (see **Figure 7.9**). Three properties at this location are broadly orientated in a southerly direction, towards the proposed development. From this viewpoint all 11 turbines of the proposed development would be visible, but the extent of the turbines seen would be limited by the intervening landform. The blades and blade tips of T1 to T9 would be visible, while the hubs and blades of T10 and T11, the most southerly turbines within the site, would be seen.

7.127 The viewpoint assessment and RVAA (**Technical Appendices 7.3** and **7.4**) identify that a substantial magnitude of change would occur for the majority of residents within Strath Halladale, resulting in a **Major** and **Significant** effect on visual amenity. This level of effect would not apply for all properties and in some instances would reduce due to the intervening landform and vegetation. To the south of Craigtown, the view towards the proposed development would also become increasingly oblique, helping to reduce the relative prominence of the proposed wind turbines.

7.128 There is limited visibility of operational and consented wind farms within Strath Halladale. This is demonstrated by **Figure 7.4l**, which shows that Kirton Energy Park is the only wind farm that would be visible from the majority of the Strath. The application stage Melvich Wind Energy Hub (proposed development at EIA Scoping stage) would be positioned to the north of Kirkton Energy Park and, should this proposed development progress, it is likely to comprise a similarly visually prominent development, particularly at the northern end of Strath.

Melvich

7.129 The southern edge of Melvich lies approximately 3.1km to the west of the proposed development. It comprises a linear settlement along the A836 to the west of the northernmost part of Strath Halladale.

7.130 The ZTVs (see **Figures 7.2a** to **7.2d**) illustrate that the theoretical visibility of the proposed development would be very limited in relation to Melvich, predominantly occurring from the southern edge of the settlement. Viewpoint 3 is located on the southern edge of Melvich, (see **Figure 7.7**) and shows the blades or blade tips of four turbines of the proposed development would be visible from this location, with these seen above the higher landform on the western side of Strath Halladale. In addition, the primary orientation of the majority of properties in Melvich is

north and north east towards the coastline and sea. There is limited visibility of operational and consented wind farms from Melvich, with the development likely to be visible being the Dounreay Tri offshore turbines.

7.131 It is therefore considered that there is potential for the Kirkton Energy Park to have a **Slight** magnitude of change for on the residents on the south east edge of Melvich. As residents have a High sensitivity, the resulting effect would be **Moderate** and **Not Significant**. However, the wind turbines would not be visible from the majority of the village, with no adverse effect.

7.132 The proposed abnormal load turning area would be a conspicuous change on the north west edge of Melvich, lying adjacent, and to the north of, the A836. Two properties directly overlook this land and the field is clearly visible from locations to the east due to the nature of the landform.

7.133 The abnormal load turning area is positioned directly opposite two residential properties within the village and would be visible from other houses. The use of this turning area would be intermittent and for and for short periods of time. In addition, the land would not contain any structures extending above the stone surface, meaning the views over the landscape towards the coastline and sea wound be maintained. However, the change in landcover from pasture to an area of stone hardstanding, would result in a considerable change to the foreground of the view. This has the potential to result in a **Medium** magnitude of change, with **Major – moderate** and significant effects, albeit at a local level.

7.134 Melvich Wind Energy Hub (proposed development at EIA Scoping stage) would be positioned to the north of Kirkton Energy Park and may be more visible than the proposed wind turbines from the settlement of Melvich.

Portskerra

7.135 Portskerra lies approximately 4km to the north of the proposed development, lying to the north of the A836. It comprises properties that located around a small triangular network of minor roads on the west side of Melvich Bay.

7.136 The ZTVs (see **Figures 7.2a** to **7.2d**) illustrate that the theoretical visibility of the proposed development would be fragmented and almost entirely limited to turbine blades. Viewpoint 6, located within Porkskerra (see **Figure 7.10**), indicates the limited extent of the turbines that are predicted to be visible from this location. The blade tips of three turbines of the proposed development would be theoretically visible. These would only just break the horizon in a location where this is interrupted by buildings and vegetation. As part of the fieldwork, this viewpoint location has been tested carefully on the ground, including capturing alternative viewpoint photography and with consideration of the ZTV. No locations were identified where there are likely to be clearer views of the proposed development from the local access roads, i.e. from publicly accessible locations. However, there may be more open views towards the proposed development from some properties in the settlement. Key operational and consented wind farms from Portskerra are the Dounreay Tri offshore turbines and the wind turbines at Forss. In addition, there is potential for Baillie and Limekiln Wind Farms to be visible from parts of the settlement.

7.137 It is therefore considered that there is potential for the Kirkton Energy Park to have a **Negligible** magnitude of change for most residents of Portskerra, potentially rising to **Slight** for properties with

more open, or elevated views towards the site. As residents have a High sensitivity, the resulting effect would be **Moderate – minor,** or possibly **Moderate** and **Not Significant**.

7.138 Melvich Wind Energy Hub (proposed development at EIA Scoping stage) would be positioned to the north of Kirkton Energy Park and may be more visible than the proposed wind turbines from Portskerra.

Strathy and Totegan

7.139 Strathy lies approximately 5.3km to the north of the proposed development. Totegan lies towards Strathy Point with properties extending along the minor road between Strathy and Totegan. Part of the settlement is positioned on low lying land to the south of Strathy Bay, where the ZTV shows no theoretical visibility. However, the section of the settlement along the coastline towards Totegan occupies a more open, elevated position, with theoretical visibility of Kirkton Energy Park.

7.140 The ZTVs (see **Figures 7.2a** to **7.2d**) illustrate that where the proposed wind turbines would be seen, this would be almost entirely limited to turbine blades. Viewpoint 9 is located at Totegan, (see **Figure 7.13**) and shows the extent of the turbines that are predicted to be visible from this location. All 11 proposed turbines of the proposed development would be visible within approximately 9.1km and with blade movement clearly apparent. However, the extent of the turbines visible would be limited. The blades of five turbines would be seen together with the blade tips of the remaining six turbines. Key operational and consented wind farms from Totegan are the Strathy Wind Farms to the south. In addition, Baillie Wind Farm Limekiln Wind Farm and the wind turbines at Forss lie in views to the east and the consented Dounreay Tri offshore turbines would be present in views across the sea.

7.141 It is therefore considered that there is potential for the Kirkton Energy Park to have a **Medium** magnitude of change for some residents at Strathy, specifically those located on the coastline that extends towards Strathy Point. As residents have a High sensitivity, the resulting effect for such residents would be **Major – moderate** and **Significant**.

7.142 Melvich Wind Energy Hub (proposed development at EIA Scoping stage) would be positioned to the north of Kirkton Energy Park. This proposed development may be more prominent than Kirkton Energy Park due to the falling elevation of the ridgeline towards the left side of this part of the view.

Armadale

7.143 Armadale lies approximately 9.3km to the north west of the proposed development. It has a linear settlement pattern, focused around the minor road that extends in a northerly direction from the A836, on the west side of Armadale Bay. Armadale is relatively low lying and is surrounding by rising ground to the south, east and west.

7.144 The ZTVs (see **Figures 7.2a** to **7.2d**) illustrate that the theoretical visibility of the proposed development is fragmented and limited to turbine blades. The settlement is also located on the very edge of the area of predicted visibility, suggesting that only the blade tips of the wind turbines would be seen. In addition, properties are generally orientated towards Armadale Bay. Key operational and consented wind farms that have the potential to be visible from Armadale are the Strathy Wind Farms.

7.145 Given the limited predicted visibility and the intervening distance, it is considered that there is potential for the Kirkton Energy Park to have a **Negligible** magnitude of change for the residents of Portskerra. As residents have a High sensitivity, the resulting effect would be **Moderate – minor** and **Not Significant**.

7.146 Armadale Wind Farm, a wind farm at planning application stage, lies in relatively close proximity to this settlement. Should this development be granted planning permission it is likely to change the nature of the view towards Kirkton Energy Park, which would further reduce the prominence of the proposed wind turbines.

Shebster and Upper Dounreay

7.147 Shebster and Upper Dounreay comprises an area of dispersed residential properties positioned along the local road network. The closest part of the settlement pattern lies approximately 11km to the east of the proposed development.

7.148 The ZTVs (see **Figures 7.2a** to **7.2d**) illustrate that the theoretical visibility of the proposed development is fragmented and limited to turbine blades. In addition, reviewing the proposed development in the context of the cumulative wind farm sites shows that this group of properties is located relatively close to the operational Baillie and consented Limekiln Wind Farms. These developments are considerably closer than Kirkton Energy Park and would reduce the prominence of the proposed development. This would be particularly the case in relation to Limekiln Wind Farm, which, when constructed would lie between Upper Dounreay and Shebster and Kirkton Energy Park.

7.149 Given the limited predicted visibility, intervening distance and relative prominence of existing and consented cumulative wind farm developments, it is considered that Kirkton Energy Park would result in a limited change to the view. Therefore, is it considered that the proposed development would have a **Negligible** magnitude of change for the residents of Upper Dounreay and Shebster. As residents have a High sensitivity, the resulting effect would be **Moderate – minor** and **Not Significant**.

Roads

7.150 There are a number of primary, secondary and minor roads within the 40km study area. These include the A836, A838, A882 and A897. There is a distinct pattern associated with these roads, with a more concentrated network in the eastern part of the study area, associated with the more settled, agricultural landscape. In the central and western parts of the study area, the road network is less dense, comprising the A836 and A838 along the north coast, with occasional roads crossing the land to the south, i.e. the A897, B871 and A836 (which is routed north-south to the south of Tongue). This sparse road network is closely linked with the more rugged, remote landscape in the central and western parts of the study area and the correspondingly limited settlement pattern.

7.151 Relating the ZTV to the road network pattern (see **Figures 7.2a** to **7.2d**), as with the analysis of settlements, it is clear that the majority of the area of theoretical visibility occurs on a limited proportion of the road network, principally the A836 along the north coast and the A897 within Strath Halladale. More limited theoretical visibility is associated with the minor roads in the vicinity of Shebster, Upper Dounreay and Newlands of Geise to the east of the site, and the A838 to the west of Tongue.

7.152 The A836, and A838 to the west of Tongue, form part of the North Coast 500 and the North and West Highlands Scenic Route, both of which are promoted tourist routes, with the North Coast 500 route being particularly popular. The value of views from roads varies, with promoted routes considered to be of High value and other routes in this context considered to be of Medium value. As views from roads are transitory and experienced as part of journeys, the susceptibility to the proposed development in views from roads is judged to be Medium. The overall sensitivity of road users therefore is regarded as High – medium for promoted routes or Medium.

A836

7.153 A specific and more detailed sequential route assessment has been undertaken in relation A836. This is included in **Technical Appendix 7.6** and is summarised as follows. The theoretical visibility of the proposed development from the A836 is relatively limited, with fragmented areas of theoretical visibility and for much of the route the intervening landform would restrict visibility to turbine blades. In addition, the existing and consented wind farms would influence the relative prominence of Kirkton Energy Park, particularly from locations to the east of Reay. Taking this into account, it is considered that the overall magnitude of cumulative change on users of the A836 would be Slight. As road users travelling along the A386 have a High-medium sensitivity, the resulting effect would be Moderate-minor overall and Not Significant. However, it is recognised that in the vicinity of Strath Halladale the proposed development would be prominent and would have locally Major-moderate and Significant effects on visual amenity for people travelling along the A836.

A897

7.154 A specific and more detailed sequential route assessment has been undertaken in relation A897. This is included in **Technical Appendix 7.6** and is summarised as follows. There would be continuous visibility of the proposed development from a large proportion of the A897. This would particularly be the case for people travelling in a northerly direction, with the turbines increasing in relative size as people travel further north. The design of the proposed development means the turbines would have a simple linear layout, consistent with landform on the west side of the Strath. The regular spacing of the turbines would also help to contribute to simplifying the appearance of the proposed development, reducing the potential for turbine blades to overlap as they rotate. Notwithstanding these factors the proposed development would be prominent in views from the A897, particularly between north of Craigtown Rock and the junction with the A897. Whilst there would be more limited effects on visual amenity on more southerly parts of the A897, there would be recurring Major-moderate and Significant effects on visual amenity for people travelling along this route.

A838

7.155 There is a section of the A838, located to the west of Tongue within the western edge of the study area with predicted visibility of the proposed development, approximately 34km from the closest wind turbine (see **Figures 7.2a** to **7.2d**). Analysis of the ZTVs identifies that there would be theoretical visibility of Kirkton Energy Park from a very short section of this road, limited to turbine blades. In addition, the proposed development would be located on the far side of Strathy North Wind Farm. As a consequence of these factors, it is predicted that the proposed development would result in a **Negligible** magnitude of change. People using the A838 are considered to have High – medium sensitivity as it forms part of the North Coast 500 and North and West Highlands Scenic

Route. Combining these judgements, the resulting visual effect is predicted to be **Minor** and **Not Significant**.

Minor Roads in the vicinity of Shebster, Upper Dounreay and Newlands of Geise

7.156 There is a small group of minor roads in the vicinity of Shebster and Newlands of Geise. The closest part of these local roads lies approximately 11km to the east of the proposed development.

7.157 The ZTVs (see **Figures 7.2a** to **7.2d**) illustrate that the theoretical visibility of the proposed development is fragmented and limited to turbine blades. In addition, reviewing the proposed development in the context of the cumulative wind farm sites shows that these roads are located relatively close to the operational Baillie and consented Limekiln Wind Farms. These developments are considerable closer than Kirkton energy Park and would reduce the prominence of the proposed wind turbines. This would be particularly the case in relation to Limekiln Wind Farm, which, when constructed, would lie between Upper Dounreay and Shebster and Kirkton Energy Park.

7.158 Given the limited predicted visibility, intervening distance and relative prominence of existing and consented cumulative wind farm developments, it is considered that Kirkton Energy Park would result in a limited change to the view. Therefore, is it considered that the proposed development would have a **Negligible** magnitude of change for the road users. As road users in this context are considered to be of Medium sensitivity, the resulting effect would be **Minor** and **Not Significant**.

Cycle Routes

7.159 One cycle route, National Cycle Route (NCR) 1 is routed through the study area. This broadly follows the A836 and North Coast 500 and is considered as part of the sequential route assessment in **Technical Appendix 7.6**.

7.160 The theoretical visibility of the proposed development from the NCR1 is relatively limited overall, with fragmented areas of theoretical visibility and for much of the route the intervening landform would restrict visibility to turbine blades. In addition, the existing and consented wind farms would influence the relative prominence of Kirkton Energy Park, particularly from locations to the east of Reay. Taking this into account, it is considered that the overall magnitude of cumulative change on users of NCR1 would be Slight. As cyclists travelling along the A836 have a High-medium sensitivity, the resulting effect would be **Moderate-minor** overall and **Not Significant**. However, it is recognised that in the vicinity of Strath Halladale the proposed development would be prominent and would have locally Major-moderate and Significant effects on visual amenity for people travelling along the A836, particularly in a westerly direction.

Core Paths

7.161 There are multiple Core Paths within the 40km study area. However, when these are related to the ZTVs (**Figure 7.2e**), the key routes from which the Proposed Development is predicted to be visible lie within approximately 15km. These Core Paths comprise SU19.03 – Kirkton to Upper Bighouse, SU19.05 Melvich Beach, SU19.06 Strathy Point Road, SU04.06 Armadale – Poulouriscaig, and SU19.02 Sletill Hill Forsinain – Altnabreac.

7.162 The value of views from footpaths varies. Routes within designated landscapes are considered to be of High or High – medium value, and those in undesignated landscapes being medium value. As

people using these routes are likely to enjoy views over the surrounding landscape, their susceptibility to the proposed development is judged to be High. The overall sensitivity of walkers therefore is regarded as High or High – Medium.

SU19.03 – Kirkton to Upper Bighouse

7.163 This Core Path extends from the cemetery to the south of Kirkton to Upper Bighouse. It is routed towards the western side of Strath Halladale and typically towards the base of the Strath, close to the river. The exception to this is at Meall Mòr a' Bealaich, where it is routed around the eastern shoulder of this higher landform.

7.164 The ZTVs (see **Figures 7.2a** to **7.2d**) illustrate visibility of the proposed development along much of this Core Path, although the rising landform to the west will constrain the extent of the wind turbines that can be seen in places. Given the relatively short distance to the site and the predicted visibility, it is anticipated the proposed development will form a prominent feature from this Core Path. There would be very limited or no visibility of ancillary elements such as the substation and borrow pits, with the ZTVs in **Figures 7.2g** and **7.2h** indicating that theoretical visibilty would be very limited in extent due to the relative (lower) elevation of the path. The substation compound would be positioned on lower ground adjacent to existing areas of trees and shrubs, between the substation compound and the route of the Core Path, which also would restrict or prevent potential visibility of this element of the proposed development. Visibility of existing and consented wind farms from this route is very limited to the enclosure provided by the local landform.

7.165 Based on the viewpoint assessment and RVAA (see **Technical Appendices 7.3** and **7.4**), it is likely that a substantial magnitude of change would occur for locations along this route, particularly where there are open views to the west, resulting in a **Major** magnitude of change. Strath Halladale is not designated for its landscape character and the value of views are considered to be medium. As walkers are considered to be of high susceptibility, and therefore high – medium sensitivity. This would result in a **Major – moderate** and **Significant** effect on visual amenity. This level of effect would not be consistent for all locations and in some instances would reduce due to the intervening landform and vegetation.

7.166 Melvich Wind Energy Hub (proposed development at EIA Scoping stage) would be positioned to the north of Kirkton Energy Park. Should this proposed development progress, it is likely to comprise a similarly visually prominent development, particularly at the northern end of Core Path.

SU19.05 Melvich Beach

7.167 This Core Path extends from the edge of Melvich to east of Bighouse, crossing the River Halladale on a footbridge. The ZTVs (see **Figures 7.2a** to **7.2d**) show predicted visibility for the section of the Core Path from the River Halladale to the end of the path to the east of Bighouse. Visibility of the proposed development would increase along the more easterly section of the path, although buildings at Bighouse would provide localised screening of views towards the site. Viewpoint 5 is located at Bighouse at the northern end of Strath Halladale (see **Figure 7.9**). From this viewpoint all 11 turbines of the proposed development would be visible, with the extent of the turbines limited by the intervening landform. The blades and blade tips of T1 to T9 would be visible, while the hubs and blades of T10 and T11, the most southerly turbines within the site would be seen. A significant effect is assessed at Viewpoint 5, however recognising that the extent of visibility from

the Core Path itself would be varied and intermittent and associated with a small part of the route, it is considered that the magnitude of change would be Medium. The viewpoint is located within Farr Bay, Strathy and Portskerra SLA and the associated value is considered to be Medium – high. Visibility of existing and consented wind farms is limited by the enclosure provided by the bay, although the Dounreay Tri wind turbines would be visible from parts of the beach. People walking the Core Path are considered to be of High susceptibility, and be of High – medium sensitivity. Combined, it is considered that the proposed development would result in a **Major - moderate** and **Significant** effect on walkers.

7.168 Melvich Wind Energy Hub (proposed development at EIA Scoping stage) would be positioned to the north of Kirkton Energy Park. Should this proposed development progress, it is likely to comprise a more visually prominent development, from this Core Path.

SU19.06 Strathy Point Road

7.169 This Core Path is routed across the undulating ground between Totegan and Strathy Point. Views are very focussed on the coastline and sea to the north, east and west. However, there are views inland, across Strathy Bay, particularly when people are walking in a southerly direction. The closest part of this route (Totegan) to the proposed wind turbines is approximately 9.1km to the north west. The ZTVs (see **Figures 7.2a** to **7.2d**) show limited and fragmented theoretical visibility from this route. The nature of visibility of the proposed development is also demonstrated by Viewpoint 9: Totegan, near Strathy Point, (see **Figure 7.13**) which shows predicted visibility of turbine blades and blade tips and is likely to represent the greatest extent of the development that can be seen from a small part of this route. Whilst Viewpoint 9 provides an indication of the appearance of the proposed development it is predicted that that visibility of the turbines along the length of the Core Path would be less shown at this particular viewpoint.

7.170 Blade movement would be apparent above the skyline to the south east. Where the proposed development would be visible, it would generally be seen in conjunction with other wind farms. This would include the Strathy Wind Farms in the vicinity of Strathy Point and the wind turbines at Forss and Baillie Wind Farm. The Dounreay Tri Wind Turbines would be apparent from this Core Path, but the relative size of this consented development is limited, and it would be positioned in a very different context to Kirkton Energy Park, being associated with the sea area to the north. Where the proposed development would be visible, it would form a small component of the overall view and typically away from the primary focus of this route which is likely to be towards the coastal edge and sea beyond.

7.171 The Core Path is located within Farr Bay, Strathy and Portskerra SLA and the associated value is considered to be High – Medium. People walking the Core Path are considered to be of High susceptibility, and be of High – medium sensitivity. Based on the factors described above it is considered that the proposed development would result in a Slight to Negligible magnitude of change. Combined, it is considered that the proposed development would result in a **Moderate – minor** and **Not Significant** effect on walkers.

SU04.06 Armadale – Poulouriscaig

7.172 This Core Path is routed across the undulating ground west of Armadale. Views are focussed on the coastline and sea to the north, east and west. However, there would be views inland towards

the site, across Armadale Bay, particularly when people are walking in an easterly direction. The closest part of this route to the proposed wind turbines is approximately 10.3km to the north west. The ZTVs (see **Figures 7.2a** to **7.2d**) show limited and fragmented theoretical visibility from this route. The nature of visibility of the proposed development from this general area is indicated by Viewpoint 10: A836, West of Armadale, which shows predicted visibility of seven of the proposed turbines and a **Moderate – minor**, **Not Significant** effect on visual amenity is predicted. Key operational and consented wind farms are likely to be visible are the Strathy Wind Farms.

7.173 People walking the Core Path are considered to be of High susceptibility, and be of High – medium sensitivity. Based on the factors described above it is considered that the proposed development would result in a Slight to Negligible magnitude of change. Combined, it is considered that the proposed development would result in a **Moderate – minor** and **Not Significant** effect on walkers.

SU19.02 Sletill Hill Forsinain – Altnabreac

7.174 This Core Path is predominately routed through the commercial forestry in the vicinity of Forsinard (east of the A897). The forestry would limit potential views over the surrounding landscape. There is a more open section of the path at Sletill Hill, but this route follows the southern shoulder of the hill, meaning the landform would screen views toward the proposed development (see **Figure 7.2b**). The closest part of this route to the proposed wind turbines is approximately 9.6km to the south. Whilst the ZTV shows theoretical visibility from this route, the commercial forestry would constrain most views. The nature of visibility of the proposed development from this general area is indicated by Viewpoint 11: RSPB Lookout Tower, Forsinard, which shows limited predicted visibility of proposed turbines due to the intervening landform and forestry, with a Negligible magnitude of change predicted, and a **Minor** and **Not Significant** effect. Visibilty of exiting and consented wind farms is likely to be similarly limited by the landscape setting of this route.

7.175 People walking the Core Path are considered to be of High susceptibility, with a Medium value and therefore to be of High – medium sensitivity. Based on the factors described above it is considered that the proposed development would result in a Negligible magnitude of change. Combined, it is considered that the proposed development would result in a **Minor** and **Not Significant** effect on walkers.

Summits

7.176 Summits are typically within the southern and western parts of the study area. these include Ben Griam Mòr, Ben Griam Beg, Morven, Ben Loyal and Ben Hope. The viewpoint assessment predicts that the effects on visual amenity in most cases would be **Not Significant**. The closest of these summits to the south and west is Ben Griam Mòr, Viewpoint 13 (see **Figure 7.17**), where a **Slight** magnitude of change from the introduction of the proposed development would result in a **Moderate** and **Not Significant** effect on the visual amenity of walkers. Kirkton Energy Park would be seen as part open expansive views and in the context of existing and consented wind farms, particularly the Strathy Wind Farms, Limekiln Wind Farm, and Baillie Wind Farm.

7.177 The exception to this is Beinn Ratha, which lies approximately 7.4km to the east of the closest turbines of the proposed development. Whilst Beinn Ratha does not comprise a high summit (between 242m 251m AOD) in relation to others within the study area, it is a local landmark close to the coastline. Beinn Ratha is included in the viewpoint assessment (see **Technical Appendix 7.3**

and **Figure 7.12**) where the full extent of all 11 turbines of the proposed development would be visible. They would comprise an evenly spaced, single row of turbines, and would be seen almost entirely against the landform. They would also be seen in front of the Strathy Wind Farms. In addition, the consented Limekiln Wind Farm would form a prominent development to the east of this location and Baillie Wind Farm and wind turbines at Forss are clearly visible to the east. A **Medium** magnitude of change and a **Major – moderate** and **Significant** effect is predicted for walkers on the summit of Beinn Ratha.

Local Attractions/Points of Interest in the Landscape

7.178 The study area includes landmarks and points of interest in the landscape that provide attractions to residents and visitors to the area. The predicted effects on such landmarks and points of interest are described below.

River Halladale

7.179 Fishing is a key pursuit associated with the rivers and lochs within the study area. The River Halladale is a noted river for fishing and the closest parts of the River are typically within 2km of the proposed wind turbines. Fishing is a pursuit which is undertaken in various parts of the study area, including rivers and lochs. Key fishing rivers within the study area include the Thurso, Halladale and Naver. No visibility is predicted in relation to the River Thurso or River Naver and the following analysis therefore concentrates on the River Halladale.

7.180 The ZTVs (see **Figures 7.2a** to **7.2d**) illustrate visibility of the proposed development throughout much of Strath Halladale, and the course of the river. There are occasional short sections of the river where the ZTV indicates no visibility. There is also riverbank vegetation that may restrict views towards the proposed development, but this is limited in extent and density. Viewpoints 1 and 2 are both positioned on the east side of Strath and demonstrate the extent of the proposed development that would be seen. The full array of the wind turbines would be visible, with these comprising a single row of regularly spaced vertical structures extending above the horizon. Whilst these viewpoints are positioned above the floor of Strath Halladale, on the west facing slopes, comparable views are likely to be obtained from the vicinity of the river. There would be some visibility of ancillary elements, although these would be less conspicuous due to their smaller size and the relative (lower) elevation of the river. The substation compound would be positioned on lower ground adjacent to existing areas of trees and shrubs, which would limit its prominence in the landscape. Visibility of existing and consented wind farms is constrained or prevented by the surrounding landform.

7.181 The viewpoint assessment and RVAA (see **Technical Appendices 7.3** and **7.4**) identify that a Substantial magnitude of change would typically occur for locations within Strath Halladale where there are open views to the west, resulting in a **Major** effect on visual amenity for residential receptors with a high sensitivity. Strath Halladale is not designated for its landscape character and the value of views are considered to be medium. People engaged in fishing would be focussed on this activity, although the surrounding context would contribute to the experience, therefore they are considered to be of medium susceptibility and medium sensitivity. This would result in a **Major – moderate** and **Significant** effect on visual amenity. This level of effect would not be consistent for all locations and in some instances would reduce due to the intervening landform and vegetation. To the south of Craigtown, the view towards the proposed development would also

become increasingly oblique, helping to reduce the relative prominence of the proposed wind turbines.

7.182 Melvich Wind Energy Hub (proposed development at EIA Scoping stage) would be positioned to the north of Kirkton Energy Park. Should this proposed development progress, it is likely to comprise a similarly visually prominent development, particularly at the northern end of Strath.

Beaches

7.183 Beaches are found along the north coast within the study area, often within small, sheltered bays. The only beach from which the proposed development is predicted to be visible from is Melvich Beach (see **Figures 7.2a** to **7.2d**). It is predicted that there would be no, or very limited visibility of Kirkton Energy Park from the beach itself, but it would be seen from approaches to the beach and the sand dunes to the south. Viewpoint 5 is located at Bighouse at the northern end of Strath Halladale, close to the sand dunes south of Melvich Beach (see **Figure 7.9**). From this viewpoint all 11 turbines of the proposed development would be visible, with the extent of the turbines limited by the intervening landform. The blades and blade tips of T1 to T9 would be visible, while the hubs and blades of T10 and T11, the most southerly turbines within the site would be seen. A significant effect is assessed at Viewpoint 5, however recognising that the extent of visibility from the beach itself would be limited, it is considered that the overall magnitude of change for beach users would be Slight. The viewpoint is located within Farr Bay, Strathy and Portskerra SLA and the associated value is considered to be Medium – high. People visiting the beach are considered to be of High susceptibility, and be of High – medium sensitivity. Combined, it is considered that the proposed development would result in a **Moderate** and **Not Significant** effect on visitors to Melvich Beach.

Forsinard RSPB Reserve

7.184 Forsinard RSPB Reserve lies within the upper parts of Strath Halladale, to the south of Kirkton Energy Park. A key point of focus within the RSPB Reserve is the lookout tower to the south of Forsinard. Viewpoint 11 is located at the lookout tower, approximately 15.8km from the closest wind turbine (see **Figure 7.15**). The wirelines show all 11 turbines of the proposed development are theoretically visible from this viewpoint in a clustered group and two individual turbines. This theoretical visibility relates to turbine blades, although the hubs of some turbines just show above the intervening landform. However, commercial forestry lies between the viewpoint and the site, and it is predicted this would screen a large proportion of the turbine hubs and blades. The proposed development would also be seen in the context of the wind turbines within the Strathy Wind Farms. A **Negligible** magnitude of change from the introduction of the proposed development is predicted at this viewpoint, resulting in a **Minor** and **Not Significant** effect on the visual amenity of visitors to the RSPB reserve, who have a high - medium sensitivity to wind farm development.

Strathy Point

7.185 Strathy Point lies the northern end of a prominent headland along the northern coastline. The ZTVs (see **Figures 7.2a** to **7.2d**) indicate that there would be extremely limited or no visibility from the end of the headland. However, there would be potential visibility from the Core Path that provides access to this point. This Core Path is considered in the relevant section above (see paragraph 7.168 – 7.170).

Dunnet Head

7.186 Dunnet Head is a prominent landmark in the eastern part of the study area. As well as comprising a dramatic coastline that is designated a SLA, this headland with its associated lighthouse forms the most northly point of mainland Great Britain, which also contributes to its popularity with visitors. However, Dunnet Head is located approximately 36km from the closest turbine at the proposed development, which would limit its prominence in westward views. Viewpoint 18 is located at Dunnet Head (see **Figure 7.22**) and wirelines show all 11 of the proposed turbines at Kirkton Energy Park would be visible. However, the extent of all the turbines that would be seen would typically be limited to blades and blade tips, the exception being turbines T4 and T5, where the hubs would also be visible. The proposed development would be seen beyond Baillie, Limekiln and Forss Wind Farms and in front of the Strathy South, Strathy Wood and Strathy North wind farms. Analysis of the ZTVs in **Figures 7.2a** to **7.2d** also illustrate that visibility of the proposed development from the B855 that provides road access to Dunnet Head will be very limited or prevented due to the intervening landform.

7.187 Kirkton Energy Park would comprise a distant element from this viewpoint. It would be positioned on the far side of intervening landform which forms part of the horizon to the south west of this location and the majority of the turbines would be screened view. The proposed development would occupy a small proportion of the open, expansive 360 degree view. Blade movement would be discernible as the turbines break the horizon and would be seen against the sky. However, the proposed Kirkton Energy Park turbines would be seen directly in front of the Strathy North, Strathy Wood and Strathy South Wind Farms and also in the context of the closer Limekiln, Baillie, and Forss wind farm developments. Therefore, a Negligible magnitude of change is predicted from the introduction of the proposed development. Combined, this would result in a **Moderate-Minor** and **Not Significant** effect on the visual amenity of visitors to Dunnet Head who have a high sensitivity to wind farm development.

ONSHORE WIND ENERGY SUPPLEMENTARY GUIDANCE

7.188 As set out in paragraph 7.10, the site is located within the area covered by the Highland-wide Local Development Plan (LDP) (THC, 2012). The relevant landscape and visual policies and related Onshore Wind Energy Supplementary Guidance (OWESG) with comments are set out in **Table 7-13**. **Table 7-13** below, provides an analysis of Kirkton Energy Park in relation to the 10 landscape and visual criteria that are contained in the OWESG. This analysis draws on the findings of the LVIA presented both in this chapter of the EIA Report and the associated Technical Appendices.

Table 7-13: Evaluation of Kirkton Energy Park in Relation to OWESG Criteria

Criterion	Measure	Evaluation
Criterion 1		
Relationship between Settlements/Key locations and wider landscape respected.	The extent to which the proposal contributes to perception of settlements or key locations being encircled by wind energy development.	The majority of the area of theoretical visibility of the proposed development is associated with parts of the study area where there is very limited or no settlement, principally the Sweeping Moorland and Flows (see **Figures 7.2a** to **7.2d**). However, there is predicted visibility of Kirkton Energy Park from the settlements of Melvich, Portskerra, Strathy and Totegan, Armadale (within occurrences of the Coastal Crofts and Small Farms LCT), together with a more dispersed pattern of properties in the vicinity of Shebster and Upper Dounreay. The closest settlement to the proposed development is located approximately 3.1km to the north of the nearest proposed turbine. The ZTVs (see **Figures 7.2a** to **7.2d**) illustrate that the theoretical visibility of the proposed development would be very limited in relation to Melvich, predominantly occurring from the southern edge of the settlement. The potential effect of the proposed wind farm on Melvich is considered to be Moderate and Not Significant. However, one of the proposed abnormal load turning areas would be adjacent to Melvich, with a predicted **Major – moderate** and significant effects, at a very local level. Strathy lies approximately 5.3km to the north of the proposed development. Totegan lies towards Strathy Point with properties extending along the minor road between Strathy and Totegan. It is considered that there is potential for the Kirkton Energy Park to have a **Major – moderate** and **Significant** effect on visual amenity for some residents at Strathy, specifically those located on the coastline that extends towards Strathy Point.
Development should seek to achieve a threshold where:	Turbines are not visually prominent in the majority of views within or from settlements/Key Locations or from the majority of its access routes.	

		The settlements within the coastal landscapes to the north of the site have a strong contextual relationship with the coastline and sea. Kirkton Energy Park would be located inland and in views away from the sea. This would limit the extent to which the proposed development would be visually prominent in views within or from the settlements. The settlements within the coastal landscape are accessed via the A836 and Kirkton Energy Park would be visible intermittently from this route. However, with the exception of the northern end of Strath Halladale, east of Melvich, the proposed wind turbines would not be visually prominent from the A836. A dispersed pattern of properties is located within Strath Halladale, to the east of Kirkton Energy Park. The LVIA identifies that a **Major** and **Significant** effect in relation to the scattered properties at the northern end of Strath Halladale, with these effects described in more detail in **Appendix 7.4**. Kirkton Energy Park would be prominent in views to one side from the A897, but would be clearly associated with the Sweeping Moorland and Flows LCT. Other settlements within the study area are located at greater distances and/or there would be no or limited visibility. The proposed wind farm would not encircle any settlements. Kirkton Energy Park is also separated from any existing or consented wind farms and, when considered in conjunction with these developments, would not encircle any settlements.
Criterion 2		
Key Gateway locations and routes are respected	The extent to which the proposal reduces or detracts from the transitional experience of key Gateway Locations and routes.	The key route that is relevant to this analysis is the A836, which also forms part of the North Coast 500 and North and West Highlands Scenic Route. The A836 is closely aligned with the north coast between John o' Groats, beyond the eastern edge of the study area, and Tongue, to the west. There are no clear 'gateway locations' along the

Development should seek to achieve a threshold where:	Wind Turbines or other infrastructure do not overwhelm or otherwise detract from landscape characteristics which contribute the distinctive transitional experience found at key gateway locations and routes.	A836. However, to the west of Reay there is a gradual transition from a relatively low lying, settled agricultural landscape to a more remote, undeveloped moorland landscape. The coastline contrasts with the undeveloped moorland interior, with recurring small settlements and associated surrounding areas of agricultural land scattered along the coast. The proposed development would be positioned within the moorland landscape and to the west of where the transition to this occurs closer to Reay. The ZTVs in **Figure 7.6.1a** and **7.6.1b** in **Technical Appendix 7.6**, illustrate the intermittent and fragmented theoretical visibility along the A836. However, the proposed wind turbines would be prominent from a relatively short section of the A836, at the northern end of Strath Halladale. At other points, visibility of the proposed development from the A836 would be predominately associated with turbine blades (see **Figures 7.6.1a and 7.6.1b** in **Technical Appendix 7.6**). The proposed development would form one of a sequence of wind farms seen from the A836 and would be set back from the road at a distance of approximately 2.6km to the closest wind turbine. Whilst visually prominent at a local level, the proposed development would not overwhelm the characteristics that contribute to the transition between the settled agricultural landscape to the east and moorland landscape to the west.
Criterion 3		
Valued natural and cultural landmarks are respected	The extent to which the proposal affects the fabric and setting of valued natural and cultural landmarks.	The key valued landscape in the vicinity of the proposed development is the Farr Bay, Strathy and Portskerra SLA. The proposed wind farm is located approximately 3.5km to the south of this SLA and would not affect its fabric. However, one of the potential abnormal load turning areas is located within the SLA and would affect a field, currently used for pasture, adjacent to Melvich. Whilst the effects of the proposed development on the SLA would be localised, it would alter land use and land cover within a small part of the locally designated landscape.
Development should seek to achieve a threshold where:	The development does not, by its presence, diminish the prominence	

	of the landmark or disrupt its relationship to its setting.	The ZTVs in **Figures 7.2a** to **7.2c** and **Figure 7.2e** illustrate that the pattern of theoretical visibility in the SLA would be variable. The extent of the proposed wind turbines that would also vary, with **Figure 7.2c** illustrating that much of the predicted visibility would be limited to turbine blades. The SLA is strongly associated with the coastline and sea to the north, east and west, rather than the landscape to the south where Kirkton Energy Park would be located. Overall, it is predicted that there would be a **Medium** magnitude of change and localised **Major – moderate** and **Significant** adverse effects on parts of the Farr Bay, Strathy and Portskerra SLA closest to Melvich. Beinn Ràtha comprises a relatively prominent summit along this part of the coastline. There is limited evidence that Beinn Ràtha is visited by walkers, with no waymarking and no continuous or obvious path to the summit. The slopes of this landform are positioned over 6.5km to the east of the proposed wind turbines and this separation means Kirkton Energy Park would not diminish the prominence of this landform. In addition, the consented Limekiln Wind Farm is positioned relatively close to the east of Beinn Ràtha and would be notably more prominent than the proposed development. Bighouse, at the northern end of Strath Halladale is a locally prominent and listed building. The position of this building and the proposed development means its principal elevation would be seen in opposing views from key vantage points, such as the A836, rather than the wind turbines forming part of the backdrop. In addition, Bighouse is located approximately 3.9km to the north of the closest proposed wind turbine. This relationship between the proposed development and Bighouse means it would not diminish its presence in the landscape.
Criterion 4		
The amenity of key recreational routes and ways is respected.	The extent to which the proposal affects the amenity of key recreational routes and ways (e.g.	There are no recreational routes within the site.

	Core Paths, Munros and Corbetts, Long Distance Routes etc.).	The two key Core Paths that would be affected by the proposed development are SU19.03 – Kirkton to Upper Bighouse and SU19.05 Melvich Beach. **Major-moderate** and **significant** effects are predicted for users of these two routes. However, the visibility of the proposed development would be intermittent from these routes and the extent of the wind turbines seen would be variable. More limited and not significant effects are predicted for other Core Paths within the study area. Therefore, whilst there would be some significant effects on Core Paths these would be localised and limited in extent in the context of the overall study area. Whilst there are notable summits within the study areas such as Ben Hope and Ben Loyal, these are relatively distant from the proposed development. Beinn Ràtha is the closest summit and a **Major-moderate** and **Significant** effect is predicted in relation the visual amenity of walkers. In a wider context, Ben Griam Beg is the next closest summit at approximately `17.4km from the nearest proposed turbines, where a **Slight** magnitude of change from the introduction of the proposed development would result in a **Moderate** and **Not Significant** effect on the visual amenity of walkers. Overall, in the context of the study area significant effects on people visiting summits would be relatively limited. National Cycle Route (NCR) 1 for the most part follows the A836 through the study area, although it diverges from this road to the east of Reay. Theoretical visibility of the proposed development from the NCR is relatively limited (see **Figures 7.6.1a and 7.6.1b** in **Technical Appendix 7.6**), with fragmented areas of theoretical visibility and for much of the route the intervening landform would restrict visibility to turbine blades. In addition, the existing and consented wind farms would influence the relative prominence of Kirkton Energy Park, particularly from locations to the east of Reay. Taking this into account, it is considered that the overall magnitude of change on users of the A836 would be **Slight**, with a **Moderate-minor** and **Not Significant** effect. However, it is recognised that in the vicinity of Strath Halladale the proposed development would be prominent and would have locally **Major-moderate** and **Significant** effects on visual amenity for cyclists travelling along the A836.
Development should seek to achieve a threshold where:	Wind Turbines or other infrastructure do not overwhelm or otherwise significantly detract from the visual appeal of key routes and ways.	

Criterion 5		
The amenity of transport routes is respected	The extent to which the proposal affects the amenity of transport routes (tourist routes as well as rail, ferry routes and local road access)	Key transport routes where the proposed development result in an adverse effect on visual amenity are the A836 and A897. The potential effects on these routes is described in **Technical Appendix 7.6** and illustrated on **Figures 7.6.1a, 7.6.1b and 7.6.2**, together with the wirelines in Annex 1 (of the Technical Appendix). Theoretical visibility of the proposed development from the A836 is relatively limited, with fragmented areas of theoretical visibility, and for much of the route the intervening landform would restrict visibility to turbine blades. In addition, the existing and consented wind farms would influence the relative prominence of Kirkton Energy Park, particularly from locations to the east of Reay. Taking this into account, it is considered that the overall magnitude of cumulative change on users of the A836 would be **Slight**. As road users travelling along the A386 have a **High-medium** sensitivity, the resulting effect would be **Moderate-minor** overall and **Not Significant**. However, it is recognised that in the vicinity of Strath Halladale the proposed development would be prominent and would have locally **Major-moderate** and **Significant** effects on visual amenity for people travelling along the A836. There would be continuous visibility of the proposed development from a large proportion of the A897. This would particularly be the case for people travelling in a northerly direction, with the turbines increasing in relative size as people travel further north. The design of the proposed development means the turbines would have a simple linear layout, consistent with landform on the west side of the Strath. The regular spacing of the turbines would also help to contribute to simplifying the appearance of the proposed development, reducing the potential for turbine blades to overlap as they rotate. Notwithstanding these factors the proposed development would be prominent in views from the A897, particularly between north of Craigtown Rock and the junction with the A897. Whilst there would be more limited effects on visual amenity on more southerly parts of the A897, there would be recurring **Major-**
Development should seek to achieve a threshold where:	Wind Turbines or other infrastructure do not overwhelm or otherwise significantly detract from the visual appeal of transport routes	

		moderate and **Significant** effects on visual amenity for people travelling along the northern part of this route.
Criterion 6		
The existing pattern of Wind Energy Development is respected.	The degree to which the proposal fits with the existing pattern of nearby wind energy development, considerations include: • Turbine height and proportions, • density and spacing of turbines within developments, • density and spacing of developments, • typical relationship of development to the landscape. • previously instituted mitigation measures • Planning Authority stated aims for development of area	The proposed development would be located in the Sweeping Moorland and Flows landscape, a large scale, open and simple landscape within which most of the nearby wind farms are also located. There are several groups of wind farm developments in this context. Those closer to Kirkton Energy Park include the operational Strathy North and consented Strathy South and Strathy Wood Wind Farms to the west and the consented Limekiln Wind Farm, Baillie Wind Farm and wind turbines at Forss to the east (see **Figure 7.3a**). At 149.9m to blade tip, the proposed development would be broadly consistent with height and spacing of turbines at these wind farms. The proposed development is linear in form, which differs from the clustered turbines at the existing and consented wind farms. However, this layout is proposed in response to site specific constraints, its position on the landform to the west of Strath Halladale and to ensure a simple composition of turbines from key viewpoints.
Development should seek to achieve a threshold where:	The proposal contributes positively to existing pattern or objectives for development in the area.	
Criterion 7		

The need for separation between developments and/ or clusters is respected	The extent to which the proposal maintains or affects the spaces between existing developments and/ or clusters	The proposed development is clearly separated from existing and consented wind farm developments. The closest of the surrounding developments are the consented Limekiln Wind Farm, approximately 8km to the east, and the consented Strathy Wood Wind Farm, approximately 5km to the south west. This spacing would maintain clear and effective separation between Kirkton Energy Park and existing and consented wind farms, as demonstrated in the Viewpoint illustrations (see Volume 3 of this EIA Report).
Development should seek to achieve a threshold where:	The proposal maintains appropriate and effective separation between developments and/ or clusters	
Criterion 8		
The perception of landscape scale and distance is respected	The extent to which the proposal maintains or affects receptors' existing perception of landscape scale and distance.	Kirkton Energy Park is located within the Sweeping Moorland and Flows LCT. This is a large scale, open landscape with a strong horizontal aspect. There are relatively few features that provide scale references in the context of the proposed wind turbines. The proposed development is set back from the smaller scale coastal landscapes and the ZTVs show there would be relatively limited visibility from these settled landscapes (see **Figure 7.2f**). However, Kirkton Energy Park would be clearly visible from the landscape to the east of the site with **Major-moderate** and **Significant** effects predicted in relation to Strath Halladale (Strath – Caithness and Sutherland LCT). The Strath is a relatively intimate landscape, with features that provide a sense of scale that could be referenced against the wind turbines. The rising landform to the west would provide a degree of separation. Kirkton Energy Park would comprise a simple, evenly spaced line of tall turbines seen above the Strath with blade movement apparent. The position and orientation of views means it is predicted means the relatively simple composition of the turbines would be maintained throughout the majority of the Strath, with limited potential for the turbines to overlap.
Development should seek to achieve a threshold where:	The proposal maintains the apparent landscape scale and/or distance in the receptors' perception.	

Criterion 9		
Landscape setting of nearby wind energy developments is respected	The extent to which the landscape setting of nearby wind energy developments is affected by the proposal.	The closest wind farm developments are the consented Limekiln Wind Farm, approximately 8km to the east, and the consented Strathy Wood Wind Farm, approximately 5km to the south west. These closest developments are also located within the Sweeping Moorland and Flows LCT. The intervening distances between these developments would ensure the setting of nearby existing and consented wind farms would be respected by the proposed development and it would not increase their prominence.
Development should seek to achieve a threshold where:	Proposal relates well to the existing landscape setting and does not increase the perceived visual prominence of surrounding wind turbines.	
Criterion 10		
Distinctiveness of Landscape character is respected	The extent to which a proposal affects the distinction between neighbouring landscape character types, in areas where the variety of character is important to the appreciation of the landscape.	Whilst the proposed development is located within the Sweeping Moorland and Flows LCT, it is positioned close to the Strath LCT (Strath Halladale) to the east. The LVIA describes the effects on the Strath and this has been a key consideration in the design of Kirkton Energy Park. The proposed site layout has been set back from the landform closer to the Strath to maintain a degree of separation between the wind turbines and the Strath. The approach to the layout for Kirkton Energy Park evolved through the design process, resulting in the proposed linear turbine layout. This layout is consistent with the landform on the west side of the Strath. The linear arrangement of turbines is the result of deliberate design choices to ensure the proposed development is seen as a simple composition of structures, reducing the potential for the turbines and blades to overlap and cluster in views from within Strath Halladale.
Development should seek to achieve a threshold where:	Integrity and variety of Landscape Character Areas are maintained.	

SUMMARY OF PREDICTED EFFECTS

7.189 The LVIA has assessed the predicted effects of the proposed development upon landscape character, areas of recognised landscape value and visual amenity, including residential amenity and as experienced sequentially along route within the study area. The study area of the LVIA extends to 40km from the proposed wind turbines.

7.190 The LVIA is accompanied by several Technical Appendices (**Technical Appendices 7.1** and **7.2** relate to assessment methodology):

- **Technical Appendix 7.3: Viewpoint Assessment**;
- **Technical Appendix 7.4: Residential Visual Amenity Assessment**;
- **Technical Appendix 7.5: Wild Land Area Assessment**; and
- **Technical Appendix 7.6: Sequential Route Assessment**.

7.191 This section summarises the findings of the LVIA and, specifically, highlights the predicted residual landscape and visual effects of the proposed development.

Project Design

7.192 Landscape and visual considerations have been key factors in the design of the proposed wind farm. The turbines would be positioned in a single, slightly arcing, north-south orientated row with a regular spacing between each turbine. The elevation of the turbines has been kept as consistent as possible along the line.

7.193 Adopting this approach to the layout simplifies the form and appearance of the proposed turbines in relation to key design viewpoints selected in the area surrounding the site. The arrangement of the turbines in a single line follows the pattern of the local landform, and the north – south orientation of Strath Halladale. The consistent spacing and elevation of the turbines also helps to simplify the appearance of the proposed development and limits the potential for overlapping of wind turbines in key views. Where possible the turbines have also been positioned away from the slopes and landform adjacent to the eastern side of Strath Halladale to provide more separation from the valley landform and associated settled areas.

7.194 Careful consideration was also given to the positioning of the proposed substation compound within the site and the potential landscape and visual effects. This has been located within the northern part of the site on the lower western side of Strath Halladale. This would be a less prominent location, using existing landform and vegetation to provide visual screening. It also would link this element of the proposed development with the existing pattern of built development, which is concentrated towards the floor of the Strath.

7.195 An integral part of the of the proposed development is the removal of the commercial forestry within the northern part of the site and restoration of this area to peatland. This forestry removal would be positive in terms of landscape character, removing an incongruous element that detracts from the Sweeping Moorland and Flows.

Landscape Character

7.196 The proposed development would be visible from nine landscape character types (LCTs) included in the assessment to varying degrees. The level of effect on the affected character areas differs primarily due to distance, the level of intervening landform screening, their variable sensitivity to wind farm development, and the influence of the operational and consented wind farms within the surrounding landscape.

7.197 Kirkton Energy Park lies within the in the northern part of the Sweeping Moorland and Flows LCT, just to the south of the coastal LCTs and west of Strath Halladale (Strath – Caithness and Sutherland LCT). This is an extensive LCT that covers a large proportion of Caithness and Sutherland. The proposed development is predicted to give rise to a **Moderate** adverse level of effect on this LCT. However, given the size of the change that would occur in the part of the LCT closest to the proposed development this is considered to be a **Significant** effect within up to approximately 10km of the proposed development. Where the proposed development would be visible in this LCT, it would generally be seen together with existing or consented wind farms, particularly the Strathy and Limekiln Wind Farms, which are also located within this LCT. Kirkton Energy Park would occupy a gap between these baseline wind farm developments, but it would also be smaller in size and comprise a simple, evenly spaced line of turbines. Kirkton Energy Park would be seen at both relatively close distances (within 5km) and also at longer distances. Beyond 15km the pattern of visibility becomes increasingly fragmented and the wind farm would be seen in the context of the expansive sweeping moorland and would comprise a relatively limited element. Due to the extent of the Sweeping Moorland and Flows, there would be large areas from which the proposed development would not be visible (see **Figure 7.2f**).

7.198 **Significant** effects from a **Substantial** magnitude of change and **Major** effect, are also predicted in relation to the occurrence of the Strath – Caithness and Sutherland LCT (Strath Halladale) to the east of the site. Theoretical visibility extends throughout the majority of the Strath and where the proposed development would be visible, it would generally be seen in isolation, or any visibility of baseline wind farms would be relatively limited due to the enclosure provided by adjacent landform. The Strath is a relatively intimate landscape, with multiple features that provide a sense of scale that could be referenced against the wind turbines. Kirkton Energy Park would comprise a simple, evenly spaced line of tall turbines seen above the Strath with blade movement apparent.

7.199 There are several occurrences of the Coastal Crofts and Small Farms LCT along the north coast, the closest of these being, in the vicinity of Melvich and Portskerra. It is predicted that the wind farm would result in a **Moderate** to **Moderate-minor** and **Not Significant** effect of this LCT due to the limited extent of theoretical visibility and strong relationship with the coastline and sea to the north. However, one of the potential abnormal load turning areas is located within this LCT, in a

field to the north of the A836 at Melvich. This element of the proposed development is predicted to give rise to a **potentially Moderate** and **Significant** effect on this LCT, although this could be reduced through the incorporation mitigation in the detailed design of the abnormal load turning area.

7.200 In the wider parts of the study area, including other it is predicted that the effects of the proposed development on landscape character would **Not be Significant**. The proposed development would contribute to the presence of wind farm development in this part of Caithness and Sutherland. However, beyond the LCTs described above, the predicted visibility of the proposed development would be relatively limited and fragmented. The change associated with the proposed development would also be limited by the baseline context of existing and consented wind farms, particularly the Strathy Wind Farms, Limekiln Wind Farm, Baillie Wind Farm and the wind turbines at Forss.

Designated Landscapes

7.201 The proposed development is not sited within a designated landscape.

7.202 The Kyle of Tongue National Scenic Area (NSA) is located within the study area. However, it was identified at EIA Scoping stage through consultation with NatureScot that this could be scoped out of the LVIA due to the intervening distance, limited predicted visibility and the presence of other wind farms between the designation and Kirkton Energy Park. Two Gardens and Designed Landscapes lie within or just beyond the study area: Tongue House and Castle of Mey (Barrowgill Castle). In the case of Tongue House, the ZTV shows there would be no visibility of the proposed development. In the case of Castle of Mey (Barrowgill Castle) any visibility is predicted to be limited to turbine blades and these would be seen at a distance of over 42km, meaning the prominence of the turbines would be very limited and it has not been assessed further in the LVIA.

7.203 There are six Special Landscape Areas (SLA) within the study area. The ZTV in **Figure 7.2e** shows the relatively limited pattern of visibility associated with the SLAs. Localised **Moderate** and potentially **Significant** effects are predicted in relation to parts of the Farr Bay, Strathy and Portskerra SLA with theoretical visibility within approximately 5km. However, the effects associated with the other five SLAs within the study area are not predicted to be **Not Significant** due to a combination of factors including fragmented and limited theoretical visibility of the proposed development, the intervening distance and the context of the broad open views in which Kirkton Energy Park would be seen.

Wild Land Areas

7.204 Four Wild Land Areas (WLA) are located within the 40km study area. The assessment scope for WLA was established through consultation with NatureScot, which identified a requirement for a specific detailed assessment of the effects of Kirkton Energy Park on WLA 39 East Halladale Flows. The findings of this assessment are contained within **Technical Appendix 7.5**.

7.205 Kirkton Energy Park would be located to the west of the East Halladale Flows WLA (WLA 39), with the closest proposed wind turbines positioned approximately 2km from the boundary of the WLA. No part of the proposed development would be within the WLA and therefore there would be no physical effects on any elements within it. Kirkton Energy Park would add new, tall vertical structures close to the western edge of the WLA that would be clearly visible from parts of the WLA and, in addition to existing and consented developments, would further erode some aspects of its key attributes/qualities. It would reinforce the existing pattern of wind farm development in the landscape, contributing to the way such development surrounds the WLA to the west, north and east, forming visible and prominent structures. It would also add to the generally settled pattern and foci of development visible to the north of the WLA. However, it would be contributing to a pattern of development that forms an established part of the baseline rather than adding distinctly different structures. Whilst it would result in **Significant** effects on parts of the WLA, these would relate to areas up to between 8km and 10km. It is also notable that views to the south would be unaffected by the proposed development, with these being the directions in which a sense of wildness is most strongly expressed. Overall, Kirkton Energy Park would not fundamentally alter the key attributes and qualities and the East Halladale Flows, when considered in relation to the overall WLA and its baseline context.

Visual Amenity

7.206 The effects of the proposed development on visual amenity within the study area have been considered in respect of:

- residents of settlements;
- users of transport routes;
- walkers on long distance recreational routes, core paths and hill walkers; and
- users of other recreational resources.

7.207 The overall pattern of the ZTV is relatively limited and sporadic, covering a relatively small proportion of the 40km study area overall (see **Figures 7.2a** to **7.2d**). A large proportion of the predicted visibility is associated with the area of sea to the north. Within the land based part of the study area, the main area of theoretical visibility is concentrated within 15km. Beyond 15km the pattern of visibility becomes increasingly limited and fragmented.

7.208 Within 15km, beyond the immediate site area, there is predicted visibility associated with a large proportion of the Sweeping Moorland and Flows to the east, west and south and south. However, in broad terms, visual receptors are concentrated within Strath Halladale to the east of the site and the more settled coastal landscapes to the north. It is predicted the proposed development would be visible throughout the majority of the Strath. However, potential visibility from the more settled parts of the coastline to the north and closer to the site would be relatively limited.

7.209 As part of the visual impact assessment of the proposed development, visual effects have been assessed from 17 viewpoints which represent key receptor locations within the study area. This Viewpoint Assessment is provided in **Technical Assessment 7.3**. These viewpoints were scoped down from an initial selection of 19 viewpoints, with two viewpoints scoped out due to the consultation feedback in relation to the Kyle of Tongue NSA. The selected viewpoints vary from High to Medium in terms of their sensitivity to the proposed development. In summary, of the viewpoints assessed:

- **Major** and **Significant** adverse effects have been identified at two viewpoints: Viewpoints 1 and 2, both of which represent views from residential receptors within Strath Halladale.
- **Major/moderate** and **Significant** adverse effects have been identified at six viewpoints: Viewpoints 1 and 2, in relation to road users within Strath Halladale; Viewpoint 4 (the A836 at the junction to Bighouse); Viewpoint 5 (Bighouse); Viewpoint 8 (Beinn Ràtha) and Viewpoint 9 (Totegan, near Strathy Point); and
- **Moderate**, **Moderate-minor** or **Minor** and **Not Significant** effects were assessed at the other eleven viewpoints.

7.210 A Residential Visual Amenity Assessment is provided in **Technical Appendix 7.4**. Nineteen residential properties were identified as having potential views of Kirkton Energy Park within the 2km RVAA study area from the nearest proposed turbine. These properties were visited from the nearest publicly accessible location to assess the predicted magnitude of change and the nature of the view which is likely to be obtained of the proposed turbines.

7.211 No properties lie within 1km of the proposed turbines, which contributes to reducing the potential for overbearing or overwhelming effects. However, there are properties within 2km with clear views to the proposed development. Major effects were predicted for 16 properties at between approximately 1.2km and 2.4km. At these properties, it was considered that although the proposed turbines visible would potentially be prominent features, factors such as distance and the layout of the proposed development would avoid the potential for overbearing or overwhelming effects.

7.212 An assessment of potential sequential visual effects on key routes through the study area, is included as **Technical Appendix 7.6**. This principally relates to the A836 and A897, although National Cycle Route (NCR) 1 is also assessed, as is the North Coast 500 and North and West Highlands Scenic Route (both following the same route) where this diverges from the A836. Overall, theoretical visibility of the proposed development from the A836 (including the associated scenic routes) and NCR1 is relatively limited, with fragmented areas of theoretical visibility, and for much of the route the intervening landform would restrict visibility to turbine blades (see **Figure 7.6.2** in **Technical Appendix 7.6**). In addition, the existing and consented wind farms would influence the relative prominence of Kirkton Energy Park, particularly from locations to the east of Reay. Taking this into account, it is considered that the overall magnitude of change on users of the A836 would be Slight, with a **Moderate-minor** and **Not Significant** on road users overall. However, it is recognised that in the vicinity of Strath Halladale the proposed development would be prominent

and would have locally **Major-moderate** and **Significant** effects on visual amenity for people travelling along the A836.

7.213 There would be continuous visibility of the proposed development from a large proportion of the A897. This would particularly be the case for people travelling in a northerly direction, with the turbines increasing in relative size as people travel further north. The proposed development would be prominent in views from the A897, particularly between north of Craigtown Rock and the junction with the A836. Whilst there would be more limited effects on visual amenity on more southerly parts of the A897, there would be recurring **Major-moderate** and **Significant** effects on visual amenity for people travelling along the northern part of this route.

7.214 Overall, the key the visual effects of the proposed development would be associated with Strath Halladale and the section of the A836 at the northern end of the Strath. Beyond this the potential for significant effects is considered to be relatively limited. The proposed development would form part of an established pattern of wind farm development in this part of Caithness and Sutherland and in most cases, would be seen in this context. The key exception to this is within Strath Halladale, where the visibility of existing and consented wind farms is limited.

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