6 Landscape and Visual Impact Assessment

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6 Landscape and Visual Impact Assessment

6.1 Executive Summary

6.1.1 The potential effects on the landscape and visual receptors that would arise as a result of the Proposed Development have been assessed in this chapter. The process taken involved identifying those receptors with the potential to be significantly affected and assessing the potential effects that the construction and operation of the Proposed Development would give rise to. The significance of these effects has been assessed through combining the sensitivity of each receptor with a prediction of the magnitude of change that would occur as a result of the Proposed Development.

6.1.2 The Proposed Development comprises four turbines each up to 180 m to blade tip with associated infrastructure, including permanent access tracks, substation, foundations and hard-standings, and borrow pit search area and construction compounds, as described in Chapter 3 and shown in **Figure 1.2**.

6.1.3 The Study Area for the Proposed Development covers a radius of 45 km and within this area, those receptors with the potential to be significantly affected have been assessed in detail. This has included one landscape element, 17 Landscape Character Types / Landscape Character Units (LCTs / LCUs), five Regional Coastal Character Areas (RCCAs) and their constituent Local Landscape Character Areas (LCCAs), one designated landscape area, and 19 representative viewpoints. Photomontages have been prepared for all of the viewpoints. The figures also include a wireline of the Proposed Development on its own and a wireline with all other cumulative Proposed Developments. These visualisations have assisted in the assessment process. **Figures 6.1 to 6.18** show plans of the Study Area, landscape receptors, visual receptors and Zone of Theoretical Visibility (ZTVs) maps of the Proposed Development on its own and in combination with other cumulative windfarms, while **Figures 6.19 to 6.37** show the photographs, wirelines and photomontages from the representative viewpoints.

6.1.4 In respect of the physical effects on landscape elements, the assessment found no significant effects would arise in relation to the loss of the agricultural land as a result of the construction of the Proposed Development. The losses would comprise only a small proportion of a much wider landscape resource and would be relatively easy to re-establish either post- construction or post-decommissioning, depending on the short, or long-term use of the area.

6.1.5 The assessment of effects on landscape character found that significant effects, during the construction and operational phases would arise as a result of the Proposed Development within parts of 15 of the LCTs / LCUs that occur in the Study Area. These significant effects would extend out to a radius of approximately 7 km. The effect of the Proposed Development on all other LCTs / LCUs during construction and operation would be not significant.

6.1.6 The assessment of effects on coastal character found that significant effects, during the construction and operational phases would arise as a result of the Proposed Development within parts of four of the RCCAs / LCCAs that occur in the Study Area. These significant effects would extend out to a radius of approximately 7 km. The effect of the Proposed Development on all other RCCAs / LCCAs during construction, operation and decommissioning would be not significant.

6.1.7 A detailed assessment of the effects on the special qualities of the Hoy and West Mainland National Scenic Area (NSA) is presented in **Appendix 6.2**. This found that the Proposed Development would not give rise to any significant effects on the Special Landscape Qualities (SLQs) attributed to this area. While the Proposed Development would have effects on two of the 11 SLQs of the NSA, the effects would not be significant. The other nine SLQs would remain unaffected, and the objectives of the designation and the overall integrity of the NSA as a whole would not be compromised.

6.1.8 The assessment of the effects of the Proposed Development has found that significant effects would occur during the construction and operational phases at 13 of the 19 viewpoints. The viewpoints significantly affected during the construction and operational phases all lie within a 7 km radius of the Proposed Development. The viewpoints would mostly be affected owing to either their close proximity to the construction works and operation of the Proposed Development, or their sensitivity, typically relating to visitor attractions or residential views. While all the representative viewpoints within a 7 km radius would be significantly affected, that is not to say that all visual receptors within this radius would also be significantly affected, especially as there are large patches with no or low-level visibility. No viewpoints beyond this 7 km radius would be significantly affected as a result of the Proposed Development.

6.1.9 The most relevant wind farms to the Cumulative Assessment are operational and consented, with the Proposed Development located in close proximity to both operational Burgar Hill Wind Farm and consented Costa Head Wind Farm. The assessment of cumulative effects on landscape and coastal character has identified that significant cumulative effects would arise as a result of the addition of the Proposed Development within parts of five of the LCTs / LCUs that occur in the Study Area. These significant cumulative effects would extend out to a radius of approximately 4 km. The cumulative effect of the Proposed Development on all other LCTs / LCUs would be not significant and there would be no significant cumulative effects on the SLQs of the Hoy and West Mainland NSA.

6.1.10 The Assessment of Cumulative Effects on visual amenity has identified that significant cumulative effects would arise as a result of the addition of the Proposed Development in respect of two representative viewpoints which lie within 2 km radius of the Proposed Development.

6.1.11 This assessment has also considered the in-combination cumulative effects that the Proposed Development, in combination with all other existing and proposed wind farms would give rise to, with the finding that the extent of significant in-combination effects would correlate with the extent of significant in-conjunction effects, summarise above.

6.1.12 In **Appendix 6.3**, the visual effect of the turbine aviation lighting has been considered from three representative viewpoints. The Assessment has considered the worst-case scenario in terms of assuming that the intensity of lighting experienced at the representative viewpoints would be 2,000 candela (cd), with an assessment also of the reduced intensity at 200 cd that would be deployed in clear visibility at a range greater than 5 km. In considering the maximum intensity of 2,000 cd, and based on the assessment of the three representative viewpoints, it can be concluded that there would be the potential for significant effects associated with the hub aviation lighting to extend over an approximate 5 km radius of the Proposed Development, although, as previously stated, the maximum intensity of 2,000cd would be infrequently experienced. In considering the reduced intensity of 200 cd, this might give rise to significant effects on residents within an approximate 5 km radius but less likely to significantly affect road-users within this area.

6.1.13 In **Appendix 6.4**, the Residential Visual Amenity Assessment (RVAA) has considered the impact of the Proposed Development on the visual amenity of 56 properties within a 2 km radius. The effect of the Proposed Development on all 56 properties would be significant. The magnitude of change on 32 properties would be medium-high, while on the remaining 24 properties it would be high. The high magnitude of change has meant that these 24 properties have been considered for a Step 4 Residential Visual Amenity Threshold Assessment. The conclusion of this Step 4 Assessment is that whilst a high magnitude of change and major significant effect is predicted, the nature of the visual impact at 23 of these properties is not sufficiently adverse to be characterised as an overwhelming or overbearing effect on visual amenity. Residential Visual Amenity Threshold Assessment has, however, identified one especially close-range property where the effects have the potential to be overwhelming or overbearing, namely Property 2: Dale at a minimum of 599 m from the closest turbine.

6.1.14 In summary, the Proposed Development would give rise to significant effects on landscape and coastal character during the construction and operation of the Proposed Development, albeit contained within the localised extent of approximately 7 km. There would be no significant effects on the SLQs of the Hoy and West Mainland NSA, which lies beyond 10 km from the Proposed Development. The Proposed Development would give rise to significant effects on visual amenity

in some locations out to approximately 7 km during the construction and operation of the Proposed Development (noting there are a number of viewpoints /areas within the 7 km which would not be significantly affected). While landscape and visual receptors beyond these ranges may gain views of the Proposed Development, these effects would not be significant. Furthermore, not all landscape and visual receptors within these ranges would be significantly affected, for example tracts of landscape where screening by landform occurs. Significant cumulative effects would arise in relation to landscape and visual receptors also out to approximately 4 km.

6.1.15 All effects during the construction of the Proposed Development would be short-term and reversible and all effects during the operation of the Proposed Development would be long-term and reversible. All effects would be adverse in nature.

6.2 Introduction

6.2.1 This Chapter of the Environmental Impact Assessment Report (EIA Report) evaluates the effects of the Proposed Development on the landscape and visual resource. This assessment was undertaken by Optimised Environments Ltd (OPEN), with the LVIA authored by Jo Phillips and reviewed by Lynda Thomson, both of whom have BA Honours in Landscape Architecture and are Chartered Members of the Landscape Institute.

6.2.2 This Chapter of the EIA Report is supported by the following Technical Appendix documents provided in Volume 4:

- Appendix 6.1: Landscape and Visual Impact Assessment Methodology;
- Appendix 6.2: Assessment of Effects on Special Landscape Qualities of Hoy and West Mainland National Scenic Area;
- Appendix 6.3: Assessment of Night-time Effects; and
- Appendix 6.4: Residential Visual Amenity Assessment (RVAA).

6.3 Legislation, Policy and Guidelines

6.3.1 Presented below are details of relevant legislation, policy and guidelines that have been taken into consideration during the Landscape and Visual Impact Assessment (LVIA).

Legislation

6.3.2 Relevant legislation documents have been reviewed and taken into account, as part of this LVIA. Of particular relevance, to the LVIA, is The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations).

Planning Policy

6.3.3 Planning Policy is set out in Chapter 5 of the EIA Report and relevant policies to the LVIA are highlighted below.

Scottish Planning Policy

6.3.4 The key national policy document in relation to land use planning is Scottish Planning Policy (SPP) (Scottish Government, 2020). As part of Scotland's commitment to sustainable economic growth it is recognised in Paragraph 2 that the planning system should *"…take a positive approach to enabling high-quality development and making efficient use of land to deliver long-term benefits for the public while protecting and enhancing natural and cultural resources".*

6.3.5 In Table 1: Spatial Framework, SPP sets out the basis for a spatial framework in relation to wind farm development in which a hierarchy of suitability is defined, in order to guide Local Authorities in the identification of suitable areas of search for wind farm development. Group 1 areas are defined as *'Areas where wind farms will not be acceptable'* and are based on National Parks and National Scenic Areas. Group 2 areas are defined as *'Areas of Significant Protection'* and are based on the following criteria; a range of national designations, other nationally important environmental interests, such as Wild Land Areas or carbon rich soils, deep peat and priority peatland habitat, and community separation of 2 km from cities, towns and villages identified on the Local Development Plan. Group 3 areas are defined as areas with potential for wind farm development, with the guidance in SPP stating; *"…wind farms are likely to be acceptable subject to detailed consideration against identified policy criteria."*

6.3.6 The Spatial Framework for the Orkney Islands shows that most of the site lies within a Group 3 area, where there is potential for wind farm development, while the southern edge of the site lies within a Group 2 area, which is an area of significant protection. The criteria that has led to the

classification of this area as Group 2 level of suitability relates to the presence of carbon rich soils and is not related to any landscape or visual sensitivity.

National Scenic Areas

6.3.7 Paragraph 212 of SPP sets out the following policy in respect of National Scenic Areas:

"Development that affects a National Park, National Scenic Area, Site of Special Scientific Interest or a National Nature Reserve should only be permitted where:

- *the objectives of designation and the overall integrity of the area will not be compromised; or*
- *any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance'."*

Gardens and Designed Landscapes

6.3.8 In Paragraph 148 of SPP, protection is given to Gardens and Designed Landscapes as follows: *"Planning authorities should protect and, where appropriate, seek to enhance gardens and designed landscapes included in the Inventory of Gardens and Designed Landscapes and designed landscapes of regional and local importance."*

Wild Land Areas

6.3.9 Paragraph 200 of SPP states the importance of Wild Land Areas as follows: *"Wild land character is displayed in some of Scotland's remoter upland, mountain and coastal areas, which are very sensitive to any form of intrusive human activity and have little or no capacity to accept new development. Plans should identify and safeguard the character of areas of wild land as identified on the 2014 SNH map of wild land areas."* Paragraph 215 further explores the ability of Wild Land Areas to accommodate development: *"In areas of wild land (see paragraph 200), development may be appropriate in some circumstances. Further consideration will be required to demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation."*

Orkney Local Development Plan Policy

6.3.10 The Orkney Local Development Plan (OLDP) was adopted in April 2017. The likely relevant policies are set out here, but it is for the Policy chapter to conclude on relevance and to comment on the policies. Policy 7D – Onshore Wind Energy Development

6.3.11 OLDP Wind Energy Policy 7D sets out the following requirements for wind farm development.

"iii. Applications for any windfarms should take account of the Spatial Strategy Framework for windfarm development:

a. Areas with potential capacity to accommodate wind farms have been identified as 'Areas with Potential for Wind Farm Development'; representing the areas of least constraint to wind energy development. Wind energy development is likely to be supported in principle within these areas, subject to proposals complying with the Development Criteria from Supplementary Guidance: Energy and any other material planning consideration.

b. Within the 'Areas of Significant Protection' wind farm development may be supported when a proposal complies with the Development Criteria from Supplementary Guidance: Energy and where it can be demonstrated by the applicant that any significant effects on the qualities of these areas can be overcome by siting, design or other mitigation.

c. Wind farm developments will not be supported within the National Scenic Area.

iv. Throughout the lifetime of the Plan, OIC will investigate potential 'Strategic Wind Energy Development Areas' within which the principle of wind farm developments will be supported. Any such areas will be subject to appropriate assessment and full public consultation before being adopted within Supplementary Guidance: Energy."

6.3.12 The northern and central part of the Proposed Development lies within an area detailed as 'Areas with Potential for Wind Farm Development' with the southern part lying in an area detailed as 'Areas of Significant Protection' as identified in the plan entitled 'Spatial Strategy Framework' on Page 29 of the OLDP. Spatial Policy 2 (SP2): Areas of Significant Protection identifies known constraints to development which are acknowledged as Group 2 areas in SPP. With respect to these SP2 areas, the southern part of the Proposed Development lies within an area of Class 1 Peat. No parts of the site are classified as 'Areas where Wind Farms are not Acceptable.'

Policy 8B Part V – Gardens and Designed Landscapes

6.3.13 The OLDP presents Policy 8B Part V which aims to protect Gardens and Designed Landscapes (GDLs) from harmful development. The assessment of effects on GDLs, is presented in Chapter 9. Although not assessed in the LVIA, they are included in **Figures 6.8, 6.9 and 6.11** and considered in the assessment in respect of the sensitivity ratings of these local landscapes.

6.3.14 *"Development which preserves or enhances the character and features of inventory gardens and designed landscapes and their setting, will be supported. Development that would have a significant negative impact upon the character of their areas will not be permitted. The conservation, maintenance and restoration, including the restoration of layout and features, will be supported where this is appropriate and based on historical research."*

Policy 9G - Landscape

6.3.15 The OLDP presents Policy 9G to protect all landscapes including National Scenic Areas (NSA). The site does not lie within an NSA and there are no regionally designated landscapes on Orkney. The assessment of effects on landscape character is presented in Section 6.11 with reference to the Orkney Landscape Character Assessment, along with the assessment of effects on the Orkney – Hoy and West Mainland NSA.

6.3.16 *"i All development proposals must be sited and designed to minimise negative impacts on the landscape, townscape and seascape characteristics and landscape sensitivities that are identified in the Orkney Landscape Character Assessment and should be sympathetic to locally important natural and/or historic features within the landscape.*

ii. Consideration should be given to the siting, scale and design of the proposal, as well as the potential for cumulative effects with other developments.

iii. Development that affects the National Scenic Area (NSA) will only be permitted where it is demonstrated that:

a) the proposal will not have a significant effect on the overall integrity of the area or the qualities for which it has been designated; or

b) any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance.

iv. Development proposals affecting the area of wild land on Hoy will be only be permitted where it has been demonstrated that any significant effects on the character and qualities of this area can be substantially overcome by siting, design or other mitigation."

Guidance

6.3.17 The LVIA follows OPEN's methodology devised specifically for the assessment of wind farm developments as presented in **Appendix 6.1**. This generally accords with 'Guidelines for Landscape and Visual Impact Assessment: Third Edition' ('GLVIA3'), the key source of guidance for LVIA.

6.3.18 Other sources of guidance used and referenced in the LVIA include the following:

- Visual Representation of Wind Farms Version 2.2 (SNH, February 2017);
- Assessing impacts on Wild Land Areas - Technical Guidance. (NatureScot, 2020);
- Guidance for Assessing the Effects on Special Landscape Qualities. (SNH DRAFT, 2018-2019);

- Technical Guidance Note 02/19 Residential Visual Amenity Assessment. (Landscape Institute, 2019);
- Technical Guidance Note 02/21 Assessing landscape value outside national designations (Landscape Institute, 2021);
- Guidance – Assessing the cumulative landscape and visual impact of onshore wind energy development. (NatureScot, 2021);
- Landscape Character Assessment Guidance for England and Scotland (SNH and TCA, 2002);
- Siting and Designing of Windfarms in the Landscape: Version 3 (SNH, 2017);
- Policy Statement No 02/02: Strategic Locational Guidance for Onshore Windfarms in Respect of the National Heritage (SNH, 2009);
- Spatial Planning for Onshore Wind Turbines – Natural Heritage Considerations Guidance (SNH, 2015);
- Good Practice During Windfarm Construction, Version 4 (SNH, 2019); and
- Guidance Note – Coastal Character Assessment – Version 1a (SNH 2018).

Orkney Islands Council Supplementary Guidance: Energy (2017)

6.3.19 The Supplementary Guidance: Energy (2017) document outlines the Spatial Framework for wind energy development across the Orkney Islands. This Spatial Framework identifies areas which have potential for wind farm development and those which do not, or those which require significant protection (following the approach in LDP Policy 7D). In addition to this, the Supplementary Guidance refers to the Orkney Islands Council Landscape Capacity Assessment for Wind Energy (2014) which provides advice on landscape sensitivities, capacity thresholds, the selection of viewpoints and cumulative issues amongst other things. The supplementary guidance highlights the Orkney - Hoy and West Mainland NSA and Hoy WLA as being especially sensitive to wind farm developments. It also emphasises the sensitivity of residential properties and settlements in terms of visual amenity.

Landscape Capacity Assessment for Wind Energy in Orkney (2014)

6.3.20 The Landscape Capacity Assessment for Wind Energy in Orkney (LCAWEO) was published by Ironside Farrar in 2014 and adopted by OIC as Supplementary Guidance in 2015. It attempts to determine the capacity of the Orkney landscape in terms of its ability to accommodate onshore wind energy development and is based on an assessment of landscape sensitivity and the value of the different Landscape Character Types (LCTs) on Orkney, whilst also taking into account the influence of cumulative wind farm developments. While the limitations of the LCAWEO are recognised in respect of its strategic rather than site specific guidance, it is considered by OIC to be a useful tool in understanding the likely acceptability of proposed developments. The key advice in the LCAWEO is recorded here, although this should be read with paragraphs 6.3.25-6.3.28.

6.3.21 The overall conclusion of this study states, *"There are no areas of Orkney with underlying capacity for the scale of multi-turbine windfarms found in parts of mainland Scotland; there are no locations where single wind energy developments greater than 20 MW could be accommodated without exceeding the underlying landscape capacity."*

6.3.22 The LCAWEO describes the capacity of 'West Mainland', where the Proposed Development will be located, as follows; "*Its relatively large size and developed nature are attributes of a landscape with some suitability for larger scale wind developments. However, these attributes are offset to an extent by the presence of the World Heritage Site, a sizable population, and the presence of a nationally designated National Scenic Area."*

6.3.23 The Proposed Development lies partly within LCT 310 Loch Basin and partly within LCT 306 Coastal Hills and Heath. While the LCAWEO identifies capacity for turbines from 30 to 50 m in small numbers and offset from the basin floor of the larger Loch Basins of Stenness and Harray, in

respect of the smaller Loch Basins to the north around Loch of Swannay, the LCAWEO identifies capacity only for occasional small turbines up to 30 m.

6.3.24 In respect of the Coastal Hills and Heath LCT, the LCAWEO identifies capacity as follows *"Coastal Hills and Heath in the west and north are upland areas of low elevation up to approximately 150m AOD. The degree of settlement and farming practices varies from undeveloped with unenclosed farmland to the south west, to more settled and enclosed to the north. This landscape is the setting to the rugged coast, therefore potential for wind development is low, with capacity for occasional turbines up to 30m."*

6.3.25 The LCAWEO, therefore, recognises the capacity of the Development Site, albeit only for especially small turbines. The LCAWEO dates back to 2014 and was adopted by OIC in 2015, since when the height of turbines proposed in wind farm applications have notably increased and the understanding of how landscape can accommodate taller turbines has evolved.

6.3.26 In respect of the relevance of capacity studies to this assessment, GLVIA 3 makes the following statement at Paragraph 5.41, "*The assessment may take place in situations where there are existing landscape sensitivity and capacity studies, which have become increasingly common. They may deal with the general type of development that is proposed, in which case they may provide useful preliminary background information for the assessment. But they cannot provide a substitute for the individual assessment of the susceptibility of the receptors in relation to change arising from the specific development proposal."*

6.3.27 In the Appeal Decision Notice for the consented Costa Head Wind Farm, dated 18th April 2019 and produced by The Scottish Government's Planning and Environment Appeals Division, this position is supported in the following statement *"…whilst strategic studies provide useful guidance, especially for developers' areas of search, all schemes require to be assessed by detailed landscape and visual impact assessments as the Environmental Statement Addendum has done." The Reporter also states; "…I have some reservation about the council's two landscape assessment studies…"* listing the concerns cited by the Appellants in that appeal and agreeing with the reservations expressed.

6.3.28 In the LCAWEO, the following caveats regarding the weight that should be applied to the study are presented as follows; *"It is emphasised that this is a strategic level landscape and visual study, providing a context for consideration of capacity for, and the cumulative effects of, existing and potential future wind turbine developments in Orkney. No site specific conclusions should be drawn from it in relation to current, proposed or future wind turbines and windfarms. As a strategic landscape and visual study this does not address specific localised impacts such as effects on individual residential receptors or other sensitive receptors. All wind energy proposals should be considered on their own unique locational and design characteristics as well as their strategic context. All proposals should be subject to landscape, visual and cumulative impact assessment including (if required) a full environmental assessment."*

Orkney Islands Council: Development Management Guidance: Energy

6.3.29 This Report was produced by the Executive Director of Development and Infrastructure at Orkney Islands Council in April 2019 in response to the Climate Change Emergency and in order to provide additional clarity regarding the material factors, outlined within Supplementary Guidance: Energy, to be considered in the assessment of planning applications.

6.3.30 In respect of LVIA the following comment is made; *"Scottish Planning Policy is clear that the only areas where wind farms are fundamentally unacceptable in terms of landscape impact are Scotland's National Scenic Areas and National Parks. Therefore, outwith the Hoy and West Mainland National Scenic Area, notwithstanding other constraints, it may be possible for a developer to make a strong argument regarding how the positive effects of the proposal outweigh the identified negative impacts on the landscape."*

6.3.31 In respect of future wind farm developments, the report encourages the acceptance of turbines larger than 125 m to blade tip as well as wind farms with a generating capacity of 15 MW, in order to secure meaningful contributions to the targets required for the interconnector with Mainland Scotland.

6.4 Consultation

6.4.1 Consultation has been ongoing throughout the Environmental Impact Assessment (EIA) process and has played an important part in ensuring the scope of the baseline characterisation and impact assessment are appropriate with respect to the Proposed Development and the requirements of statutory consultees and other interested stakeholders.

6.4.2 Relevant comments from the EIA Scoping Opinion, provided by NatureScot are summarised in Table 6.1 below, alongside a high-level response as to how these comments have been addressed within the EIAR Report.

Table 6.1 – Summary of consultation responses relevant to LVIA

Consultee	Comment / Issue Raised	Response
NatureScot 12th April 2022	*"We welcome the Applicant's intention to assess impacts on the NSA in line with our draft guidance for assessing effects on special landscape qualities. While we are in broad agreement with the viewpoints proposed to assess impacts on the NSA, we recommend the approach remains flexible e.g. during scoping of the special landscape qualities likely to be affected, which may result in additional viewpoints being needed to aid assessment."*	A full and detailed assessment of the effect of the Proposed Development on the SLQs of the Hoy and West Mainland NSA in accordance with NatureScot Draft Guidance (2018) is presented in Appendix 6.2. This has been informed by the representative viewpoints in and close to the boundaries of the NSA.
	"We also advise that a night time assessment is included within the LVIA, given the requirement for lighting turbines over 150m to blade tip. More information on the scope of assessment for turbine lighting can be found in Annex 2 of our pre-application and scoping advice document. We encourage early mitigation by design to reduce impacts, including consideration of smaller turbines which do not require lighting."	A full and detailed assessment of the effect of the aviation lighting of the Proposed Development on visual receptors is presented in Appendix 6.3.
	"The scoping report states that a Wild Land assessment will be scoped-out of the EIA. From the submitted Zone of Theoretical Visibility (ZTV) map, some limited visibility of the proposal will extend into this WLA. The effects of this could be heightened given the requirement for lighting of turbines larger than 150m. However, given the separation distance from the WLA, we agree that the proposal would be unlikely to introduce significant effects on the WLA."	Noted – a Wild Land assessment of the effects of the Proposed Development on the Wild Land Qualities of the Hoy Wild Land Area have been scoped out of this Assessment.
	"With reference to our comments above, we are in broad agreement with the approach to LVIA as outlined in the scoping report. We would be happy to provide further advice on the final list of viewpoints, in consultation with the Orkney Islands Council, and the scope of the NSA assessment."	Noted. In the absence of specific comments on the viewpoint list, four additional viewpoints have been added, namely Viewpoint 13: B9057 north-west of Dounby, Viewpoint 14: Skara Brae, Viewpoint 15: Vestra Fiold and Viewpoint 16: A966 west of Abune the Hill. This has been to ensure representation of all potentially significant visual effect.

Consultee	Comment / Issue Raised	Response
	"We highlight that the proposal (as currently proposed) is of a very large scale in relation to Orkney's topography and is contrary to the Landscape Capacity Assessment for Wind Energy in Orkney (2015)5. The proposed turbines would exceed the 'very large' turbine size category (80-125m to blade tip) which were assessed in this study. In addition, the proposed turbines would sit within the Coastal Hill and Heath (ORK12) and Loch Basins (ORK 16) character types which have been assessed as having capacity for small groups of turbines 30-50m to blade tip (respectively). This is, in part, due to the modest scale and extent of the island landscapes, the highly dispersed population and patterns of settlement and the sensitive coastline and seascape which is a defining feature of the Orkney Islands. More information on Orkney's landscape character is also available from our website."	As set out in the Appeal Decision Notice for the consented Costa Head Wind Farm, dated 18th April 2019 and also in GLVIA3, while capacity studies present general information on the sensitivity of Landscape Character Types to generic types of development, they are no substitute for the individual assessment of a specific proposal, which is what is presented in this LVIA.
	"Since the publication of the sensitivity study, we are aware of the nearby Costa Head Wind Farm being approved, which comprises of 4 turbines at 125m to blade tip. Given the proximity of this development, careful consideration of turbine height and proportion will therefore be very important to avoid cumulative impacts."	Careful consideration has been given to the cumulative interactions between the Proposed Development and nearby Costa Head Wind Farm in the cumulative section in 16.13.
	"In addition, we are aware that the offshore West of Orkney Wind Farm is currently at scoping. Although we do not know the implications of this proposal at this time, we highlight it may influence the cumulative study area for this proposal and the Applicant may wish to consider this further. More information on this proposal can be found from Marine Scotland."	Scoping stage wind farms are included exceptionally in the cumulative assessment, typically at the request of consultees and when they are located in close proximity to the Proposed Development. The closest boundary of the West of Orkney Wind Farm would be located over 50 km to the south-west and, therefore, unlikely to give rise to significant cumulative effects.

6.5 Assessment Methodology and Significance Criteria

Consultation

6.5.1 A summary of the consultation comments is set out at Section 6.4. Consultation with statutory consultees was carried out through the scoping process and with the public through public and online consultation events.

Study Area

6.5.2 The initial step in the LVIA is the establishment of the study area for the assessment. Guidance developed by NatureScot (Visual Representation of Wind Farms Version 2.2, February 2017) indicates that an area with a radius of 45 km from the nearest turbine is appropriate for turbines

over 150 m, with the proposed blade tip height of the turbines at up to 180 m. This Study Area is shown in **Figure 6.1** and is not intended to provide a boundary beyond which the Proposed Development will not be seen, but rather to define the area within which it may have a significant landscape or visual effect. In reality and considering the nature and context of the Proposed Development, significant effects are only likely to occur within a much narrower range of distance than the 45 km radius.

6.5.3 A review of the wind farm context within a 45 km radius has been undertaken, based on the latest NatureScot mapping of large-scale wind farm development. It is considered that any cumulative effects, will arise as a result of the pattern of development within the 45 km study area radius, rather than as a result of changes beyond this. **Figure 6.9** shows the locations of wind farms within 45 km that are operational, under construction, consented or which are at application stage and where the turbines are greater than 50 m to blade tip. Orkney Islands Council and NatureScot have agreed to the list of sites to be considered within the detailed cumulative assessment. Exceptionally, scoping stage sites may also be included where they are considered to be of specific relevance to the cumulative effect of the Proposed Development, although this is not the case in respect of the Proposed Development as there are no scoping stage sites within 16 km.

Desk Study

6.5.4 The Assessment is initiated through a Desk Study of the Site and the 45 km radius study area. This study identifies aspects of the landscape and visual resource that may need to be considered in the landscape and visual assessment, including landscape-related planning designations, landscape and coastal character typologies, Wild Land Areas, operational and potential cumulative wind farms, and views from settlements and routes, including roads, ferry routes, and walking routes.

6.5.5 The Desk Study also utilises Geographic Information System (GIS) and Resoft Windfarm software to explore the potential visibility of the Proposed Development. The resultant ZTV diagrams and wirelines provide an indication of which landscape and visual receptors are likely to be relevant to the assessment.

Site Visit

6.5.6 Field Surveys have been carried out across the 45 km radius study area, although the focus of the assessment has been on the closer range areas, shown on the ZTV to gain theoretical visibility of the Proposed Development. The baseline field survey has four broad stages:

- A preliminary familiarisation around the study area to visit landscape and visual receptors that have been identified through the desk study, and to verify their existence and importance. Important features and characteristics that have not become apparent through the desk study are also identified, and particularly sensitive receptors are noted in order to inform the design process.
- A visit onto the site taking particular note of the baseline characteristics and wider influences, in order to establish the potential of the site for wind farm development and identify the most suitable areas for the Proposed Development in landscape and visual terms, along with any constraints that may restrict the developable area.
- Further field survey around the study area, concurrent with the design process for the Proposed Development, to identify those receptors that are likely to be particularly important in the assessment and inform the layout design, possible turbine height, and the extent of the Proposed Development.
- The identification of representative viewpoints to include in the landscape and visual assessment, and to ensure representation of a wide range of visual receptors, as well as landscape receptors, and from a variety of directions and distances relative to the Proposed Development.

Methodology for the Assessment of Effects

6.5.7 Significance has been assessed through professional consideration of the sensitivity of each landscape and visual receptor to the Proposed Development and the magnitude of the potential effects arising as a result of the introduction of the Proposed Development. This section summarises the methodology and guidance used to carry out the LVIA, which is described in full in **Appendix 6.**1.

Categories of Effects

6.5.8 The LVIA is intended to determine the effects that the Proposed Development will have on the landscape and visual resource. For the purpose of assessment, the potential effects on the landscape and visual resource are grouped into four categories, namely effect on landscape elements, effects on landscape character, effects on views, cumulative effects, effects on visual amenity and night-time effects.

Assessment of Effects

6.5.9 The broad principles used in the assessment of significance of the various categories of effects are the same and are described below. The detailed methodology for the assessment of significance does, however, vary, and the specific criteria used are described in **Appendix 6.1**.

6.5.10 The objective of the assessment of the Proposed Development is to predict the likely significant effects on the landscape and visual resource. In accordance with the EIA Regulations the LVIA effects are assessed to be either significant or not significant. The LVIA does not define intermediate levels of significance as the EIA Regulations do not provide for these.

6.5.11 The significance of effects is assessed through a combination of two considerations; the sensitivity of the landscape receptor or view and the magnitude of change that will result as a consequence of the addition of the Proposed Development.

Sensitivity

6.5.12 Sensitivity is an expression of the ability of a landscape or visual receptor to accommodate the likely effects arising as a result of the Proposed Development. Sensitivity is determined through a combination of the value of the receptor and its susceptibility to the Proposed Development. The factors that determine these criteria are described in **Appendix 6.1**.

6.5.13 Levels of sensitivity; high, medium to high, medium, medium to low and low; are applied in order that the judgement used in the process of assessment is apparent.

Magnitude of Change

6.5.14 Magnitude of change is an expression of the extent of the impact on landscape and visual receptors that will result from the introduction of the Proposed Development. The magnitude of change is assessed in terms of a number of variables, including the size and scale of the impact and the extent of the affected area. The factors that determine these criteria are described in **Appendix 6.1**.

6.5.15 Levels of magnitude of change; high, medium to high, medium, medium to low, low and negligible or no change; are applied in order that the judgement used in the process of assessment is apparent.

Assessment of Significance

6.5.16 The significance of effects is assessed through a combination of the sensitivity of the landscape or visual receptor and the magnitude of change that will result from the addition of the Proposed Development. The matrix presented in Table 6.2 below is used as a guide to illustrate the SLVIA process. In line with GLVIA3 and its emphasis upon the application of professional judgement, reliance upon a matrix is avoided through the presentation of clear and accessible narrative, describing the rational assessment made for each landscape and visual receptor. Such narrative

assessments provide a level of detail over and above the outline assessment provided by use of the matrix alone.

6.5.17 The Landscape and Visual Assessment unavoidably, involves a combination of quantitative and qualitative assessment and, wherever, possible cross references will be made to objective evidence, baseline figures and photomontage visualisations to support the assessment conclusions. Often a consensus of professional opinion has been sought through consultation, internal peer review, and the adoption of a systematic, impartial, and professional approach. Importantly each effect results from its own unique set of circumstances and each has been assessed on a case-by-case basis. The matrix, as presented in Table 6.2, should, therefore, be considered as a guide and any deviation from this guide will be clearly explained in the assessment.

6.5.18 Significant landscape and visual effects are highlighted in bold and shaded dark grey in Table 6.2. They relate to all those effects that result in a 'Significant' effect. In those boxes shaded light grey, effects can be either significant or not significant, with this decision relying on reasoned assessment and the professional judgement of the assessor. White or un-shaded boxes in Table 6.2 indicate a not significant effect. Levels of effect are also defined in terms of major, major-moderate, moderate, moderate-minor and minor and are show in respect of the 'significant' and 'not significant' boxes in the matrix. In those instances where there will be no effect, the magnitude will be recorded as 'no change' and the level of effect as 'no effect'.

Table 6.2: Matrix of significance of effect

Magnitude **Sensitivity**	**High**	**Medium to high**	**Medium**	**Medium to low**	**Low**	**Negligible or no change**
High	**Significant** (Major)	**Significant** (Major)	**Significant** (Major-moderate)	Significant or not significant (Moderate)	Not significant (Moderate-minor)	Not significant (Minor)
Medium to high	**Significant** (Major)	**Significant** (Major-moderate)	Significant or not significant (Moderate)	Significant or not significant (Moderate)	Not significant (Moderate-minor)	Not significant (Minor)
Medium	**Significant** (Major-moderate)	Significant or not significant (Moderate)	Significant or not significant (Moderate)	Not significant (Moderate-minor)	Not significant (Minor)	Not significant (Minor)
Medium to low	Significant or not significant (Moderate)	Significant or not significant (Moderate)	Not significant (Moderate-minor)	Not significant (Minor)	Not significant (Minor)	Not significant (Negligible)
Low	Not significant (Moderate-minor)	Not significant (Moderate-minor)	Not significant (Minor)	Not significant (Minor)	Not significant (Negligible)	Not significant (Negligible)

6.5.19 A significant effect occurs where the Proposed Development will provide a defining influence on a landscape element, landscape character receptor or view, albeit that it may be one of a number of defining characteristics. A not significant effect occurs where the effect of the Proposed

Development is not material, and the baseline characteristics of the landscape element, landscape character receptor, view or visual receptor continue to provide the definitive influence. In this instance, the Proposed Development may have an influence, but this influence will not be definitive.

6.5.20 OPEN has chosen to keep these the consideration of the size or scale of the effect, its geographical extent and its duration and reversibility separate, by basing the magnitude of change on size or scale to determine where significant and not significant effects occur, and then describing the geographical extents of these effects and their duration and reversibility separately. Duration and reversibility are therefore stated separately in relation to the assessed effects (i.e. as short/medium/long-term and temporary/permanent) and are considered as part of drawing conclusions about significance, combining with other judgements on sensitivity and magnitude, to allow a final judgement to be made on whether each effect is significant or not significant. A fuller description of duration and reversibility is presented later in this section.

Cumulative Assessment

6.5.21 Significant cumulative landscape and visual effects arise where the addition of the Proposed Development to other wind farm developments leads to wind farms becoming a prevailing landscape and visual characteristic, albeit that it may become one of a number of prevailing characteristics.

6.5.22 Baseline operational and under construction cumulative wind farms are taken into consideration in the Solus Assessment and Cumulative Assessment of the Proposed Development, as presented in Sections 6.11, 6.12 and 6.13. Cumulative wind farms are shown in **Figure 6.12**. There are only three operational wind farms within a 10 km radius of the Proposed Development, namely Burgar Hill, Hammars Hill and Holodykes. Burgar Hill comprises six turbines with varying blade tips up to 116 m, while Hammars Hill comprises five turbines with a blade tip height of 67 m. Cumulative ZTVs for these wind farms in conjunction with the Proposed Development are shown in **Figures 6.10 and 6.11**. The Holodykes single turbine is 80 m to blade tip.

6.5.23 Consented and application-stage wind farms are considered in the cumulative assessment, presented in Section 6.13, along with operational and under construction wind farms. Cumulative ZTVs have been prepared to illustrate theoretical visibility of the Proposed Development in conjunction with consented Costa Head Wind Farm (**Figure 6.12**), consented Quanterness Wind Farm (**Figure 6.13**) and application stage Hammars Hill Extension (**Figure 6.14**). The cumulative wirelines in **Figures 6.19 to 6.37** illustrate the influence of wind farm developments on the cumulative situation as experienced from the representative viewpoints.

6.5.24 The cumulative section of the LVIA, in Section 6.13 of this LVIA, assesses the effects arising from the addition of the Proposed Development to a context including two future scenarios of wind farm development, as follows:

- Scenario 1 – operational and under construction wind farms plus consented wind farms; and
- Scenario 2 – operational, under construction and consented wind farms plus application stage wind farms.

6.5.25 Significant cumulative landscape and visual effects arise where the addition of the Proposed Development to, or in combination with, other wind farms, leads to wind farms becoming a prevailing landscape and visual characteristic, albeit that it may become one of a number of prevailing characteristics.

6.5.26 Baseline operational and under construction cumulative wind farms are taken into consideration in both the assessment of the Proposed Development itself and the cumulative assessment, while consented and application-stage wind farms are considered only in the cumulative assessment.

Cumulative Guidance

6.5.27 NatureScot's 'Guidance – Assessing the cumulative landscape and visual impact of onshore wind energy development' (NatureScot, 2021) is widely used across Scotland to inform the specific

assessment of the cumulative effects of wind farms. This guidance provides the basis for the methodology for the cumulative assessment.

6.5.28 *"The purpose of a Cumulative Landscape and Visual Impact Assessment (CLVIA) is to describe, visually represent and assess the ways in which a proposed wind farm would have additional impacts when considered with other consented or proposed wind farms. It should identify the significant cumulative impacts arising from the proposed wind farm."*

6.5.29 The degree to which cumulative effects occur, or may occur, as a result of more than one wind farm being constructed or becoming operational are a result of:

- the distance between individual wind farms and/or relevant other developments;
- the interrelationship between their Zones of Theoretical Visibility (ZTV) and how they may appear together in views;
- the overall character of the landscape and its sensitivity to wind farms and/or other relevant developments;
- the siting, scale and design of the wind farms and/or other relevant developments themselves; and
- the way in which the landscape is experienced.

6.5.30 The aim of the Cumulative Landscape and Visual Impact Assessment (CLVIA) is to focus on, and determine, the likely significant cumulative landscape and visual effects. Significant cumulative landscape and visual effects are likely to arise where wind farm developments become a prevailing landscape and visual characteristic as a result of the additional effects of the Proposed Development, albeit that they may become one of a number of prevailing characteristics.

Combined Cumulative Effects

6.5.31 To assist the decision maker, the Assessment also presents below an overview of the likely combined cumulative effects of the Proposed Development in-combination with relevant operational and consented wind farms. The purpose of this is to consider whether the resulting pattern of development, including the Proposed Development, will result in the redefinition of landscape character or visual receptors. For example, if the existing landscape character displays a 'landscape with wind farms' characteristic, where wind farms are one of a number of defining characteristics, the assessment will consider whether this may be redefined as a 'wind farm landscape' when the Proposed Development is added into the overall pattern, where wind turbines become the most prevalent defining characteristic of the landscape. Combined cumulative effects are linked closely to landscape and visual capacity and the assessment has regard to factors such as the relationship of the combination of wind farms to landscape character types and the overall influence of the ZTV, in reaching an informed opinion as to the extent and nature of any combined cumulative effects.

Nature of Effects

6.5.32 The 'nature of effects' relates to whether the effects of the Proposed Development are positive/beneficial, negative/adverse or neutral. Guidance provided in GLVIA3 states that *"thought must be given to whether the likely significant landscape and visual effects are judged to be positive (beneficial) or negative (adverse) in their consequences for landscape or for views and visual amenity*" but does not provide an indication as to how that may be established in practice. The nature of effects is therefore one that requires interpretation and reasoned professional opinion. Definitions of beneficial, neutral and adverse effects are presented in **Appendix 6.1**. In respect of this Assessment a cautionary approach has been taken in which all effects are assumed to be adverse unless stated otherwise.

Duration and Reversibility of Effects

6.5.33 The effects of the Proposed Development are of variable duration, and are assessed as short-term or long-term, and permanent or reversible. The construction effects include consideration of the construction compound, machinery, ground modifications, materials and cranes.

6.5.34 The effects of the Proposed Development are of variable duration, and are assessed as short-term or long-term, and permanent or reversible. The construction effects would last approximately 12 months and would generally be considered short term. They would include those effects associated with the groundworks, construction of the compounds, control building, access tracks, hard-standings and turbine foundations, as well as the erection of the turbines. The tall cranes would be apparent intermittently and over a shorter duration. Borrow pit excavation would also be short-term as borrow pits would be restored at the end of the construction process, although a permanently altered ground profile may remain evident. The loss of agricultural land would be a long-term effect although, in the main, reversible.

6.5.35 It is anticipated that the operational life of the Proposed Development would be 40 years. The turbines, foundations, hard-standings, access tracks and substation would be apparent during this time, and these effects would be considered long-term and potentially in perpetuity although they would also be largely reversible if required.

6.5.36 The reversibility of effects is variable. The most apparent effects on the landscape and visual resource, which arise from the presence and movement of the turbines, are reversible as the turbines would be removed on decommissioning. The effects of the tall cranes and heavy machinery used during the construction and decommissioning periods would also be reversible. It is anticipated that access tracks would remain at decommissioning. Turbine foundations and underground cabling would be left in-situ below ground with no residual landscape and visual effects.

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

Graphic Production

6.5.38 The written LVIA is accompanied by a set of graphics contained in Volume 3. Reference is made throughout the written text to these graphics, as they are an integral part of the overall assessment and of importance in illustrating specific matters. They should be viewed in accompaniment to the written text.

6.5.39 The graphics can be divided into two categories; maps and visualisations. The maps are largely based on the 45 km study area around the Proposed Development and present data of relevance to the assessment, such as the location and extent of LCTs, landscape designations and principal visual receptors. Zone of Theoretical Visibility ('ZTV') maps are also included. These digitally calculate the extent and level of theoretical visibility across a given area, using Ordnance Survey Terrain 5 mapping as the basis for the calculations. As this terrain model is based only on the 'bare earth', it does not take account of potential screening by vegetation or buildings, and this is why it is referred to as 'theoretical' and not 'actual' visibility.

6.5.40 The visualisations are based on the 19 viewpoint locations, which are representative of the landscape and visual amenity of visual receptors in the area surrounding the Proposed Development and which have been assessed in detail in Section 6.13. For each viewpoint there is baseline photography, and wirelines of the Proposed Development and the 'bare earth' landform for the same extent as shown in the photography. In accordance with NatureScot's visualisation guidance, all of the viewpoints also have accompanying photomontages. These use the baseline photography and add onto this a computer-generated model of the Proposed Development.

6.5.41 More detailed information on graphic production is included in the Assessment Methodology in **Appendix 6.1**.

Night-time Assessment

6.5.42 The nature of the daytime and night-time visual effects arising from wind farms differs considerably, as during daylight hours visibility of the large-scale moving turbines gives rise to effects that are very different to the pinpoint effects of lighting at night. As a result, the assessment of sensitivity and magnitude of change for night-time effects is carried out using different criteria/definitions than those for daytime views. These are described in the Assessment Methodology in **Appendix 6.1**.

Limitations to Assessment

6.5.43 Photographs and other graphic material such as wirelines and photomontages used in the assessment are for illustrative purposes only and, whilst useful tools in the assessment, are not considered to be completely representative of what will be apparent to the human eye. The assessment itself is carried out from observations in the field and, therefore, may include elements that are not visible in the photographs.

Zone of Theoretical Visibility (ZTV)

6.5.44 There are limitations in the theoretical production of ZTVs, and these should be borne in mind in their consideration and use:

- Ordnance Survey Terrain 5 DTM has been used to generate the ZTVs within the study area. The analysis is based on visibility at points on a 5 m grid and does not take into account local, small-scale landform changes in analysing theoretical visibility.
- The ZTVs illustrate the 'bare ground' situation, and do not take into account the screening effects of vegetation, buildings, or other local features that may prevent or reduce visibility.
- The ZTVs do not indicate the reduction in visibility that occurs with increased distance from the Proposed Development. The nature of what is visible from 3 km away will differ markedly from what is visible from 10 km away, although both are indicated on the ZTVs as having the same level of visibility.

6.5.45 It is important to remember that there is a wide range of variation within the visibility shown on the ZTV. For example, an area shown on the blade tip ZTV as having visibility of all of the turbines may gain views of the smallest extremity of blade tips, or of full turbines. This can make a considerable difference in the effects of the Proposed Development on that area.

6.5.46 These limitations mean that while the ZTVs are used as a starting point in the assessment, providing an indication of where the Proposed Development will theoretically be visible, the information drawn from the ZTVs is not completely relied upon to accurately represent visibility of the Proposed Development and is verified by wirelines and fieldwork.

Visualisations

6.5.47 The Visualisations are based on theoretical visibility from 1.5 metres above ground level. There are limitations in these theoretical productions, and these should be borne in mind in the consideration and use of the wireline images. Firstly, the wireline illustrates the 'bare ground' situation, not taking into account the screening effects of vegetation, buildings, or other local features that may prevent or reduce visibility. Secondly, the wireline is based on OS Terrain 5 DTM, so there may be local, small-scale landform variations that are not reflected in the wireline but may alter the actual visibility of the Proposed Development, either by screening theoretical visibility or revealing parts of the Proposed Development that are not theoretically visible. Thirdly, planning conditions are likely to allow the locations of the turbines to be horizontally micro-sited to a small degree and the levels of the turbine bases have not yet been established in detail as this will be determined through site investigations and engineering design. Both of these factors may alter the base and, therefore, also the height above ordinance datum from those that are assumed in the assessment and shown in figures. Such variation may also affect ZTVs.

6.5.48 Where descriptions within the Assessment identify the numbers of turbines visible this refers to the theoretical illustrations generated and, therefore, the reality may differ to a degree from these impressions. These factors are unlikely to make a material difference to the outcome of the assessment.

6.5.49 Not all areas of the study area are publicly accessible and not all parts of the study area have been visited due to time and accessibility constraints. This has, for example limited the specific assessment of views from residential and other properties Notwithstanding these limitations, the assessors consider that there is sufficient information available, from publicly accessible viewpoints, to form a competent assessment of the likely landscape and visual amenity effects.

6.6 Baseline Conditions

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

- The Site;
- Landscape character;
- Coastal character;
- Landscape planning designations;
- Viewpoints;
- Trends and projected future baseline; and
- Cumulative wind farm developments.

The Site

6.6.2 The Site is located on and around Hundland Hill (106 m) in the northern part of the Western Mainland of Orkney. It is located approximately 3 km south of the north coast and set in a rural area comprising fields of improved pasture. It is enclosed by loch basins to the west and east and a broader extent of moorland hills to the south. Minor roads extend down the west and east of the hill to access a series of farmsteads and other rural properties. There is a small domestic turbine on the northern side of the hill.

6.6.3 West Mainland is characterised by low hills interspersed with loch basins. The coastal hills which sit close to the northern coast include Costa Hill (151 m AOD) to the north, Kirbuster Hill (102 m AOD) to the west and Hundland Hill itself, which is set between Loch of Swannay to the north-east and Loch of Hundland to the south-west, with Loch of Boardhouse further to the south-west. A series of moorland hills and smaller lochs then extend to the south, including Greeny Hill (152 m AOD), Mid Hill (193 m AOD) and Burgar Hill (159 m AOD), with the high point at Mid Tooin (224 m AOD) marking the watershed between the north and south flowing rivers in West Mainland.

6.6.4 The landscape comprises a mix of enclosed farm fields and unenclosed moorland. The enclosed farm fields mostly contain improved pasture with some crops grown in the lower-lying and more sheltered locations. The open moorland comprises rough pasture and is used for hill sheep farming. The low-lying vegetation combined with the very limited extent of tree cover, creates an extremely open and exposed landscape, with long-ranging views where the landform is open or elevated.

6.6.5 Parts of this landscape are also characterised by a dispersed pattern of settlement and accessed by a fine network of roads. The relatively low-lying landform has meant that settlement has established extensively across this landscape, with only the upland moorlands remaining unsettled. There are few nucleated settlements, with rural properties typically occurring

intermittently along rural roads. While the main roads are routed through the lower-lying coastal and loch basin areas, 'B' roads and minor roads extend across the upland landscapes.

6.6.6 Southern and western parts of West Mainland are covered by the Heart of Neolithic Orkney World Heritage Site (WHS), which denotes the international importance of some of the world's most famous archaeological sites including Skara Brae, Ring of Brodgar and Maeshowe, as well as hundreds of other sites. Development across West Mainland has remained relatively small in scale and rural in character, albeit with a larger concentration occurring at Stromness, where there is also a ferry port and some light industry.

6.6.7 Wind farm development has introduced a larger scale of development into rural parts of West Mainland with operational Burgar Hill and Hammars Hill Wind Farms set in the moorland hills close to the north-east coastal edge. While these are larger scale commercial developments, there are also a large number of smaller scale domestic turbines associated with farmsteads or rural properties dispersed across West Mainland.

Landscape Character

6.6.8 Landscape Character information produced by or prepared on behalf of NatureScot forms the basis of much of the characterisation of the Study Area. The original Landscape Character Assessment (LCA), which covers the 45 km Study Area, is the Scottish Natural Heritage Review 100: Orkney Landscape Character Assessment (SNH, 1998). NatureScot has reviewed and updated the 30 original LCAs and this information is contained in NatureScot's Landscape Character Assessment GIS dataset. In respect of the Study Area, the Landscape Character Types (LCTs) have not noticeably changed between the original Orkney Landscape Character Assessment and the updated dataset.

6.6.9 Guidance on the NatureScot web page, advises that, where available, and where relevant to specific types of development, such as wind farms, character assessments in capacity studies should take precedence over NatureScot's LCAs. The Orkney Landscape Wind Energy Capacity Study (OLWECS) was written by Land Use Consultants in 2014 and adopted by OIC in 2015. The OLWECS also uses the LCTs presented in NatureScot's original LCA and updated dataset, and this information will be used as the basis of the assessment of effects on landscape character in the LVIA.

6.6.10 NatureScot's dataset and OLWECS divide the landscape into areas of distinctive character which are generally referred to as LCTs. Many of these LCTs are extensive, sometimes covering several areas that are geographically separate. In order to distinguish between different areas of the same LCT and identify these areas in respect of their specific location, a sub classification of Landscape Character Units (LCUs) has been applied for the purposes of the LVIA.

6.6.11 The distribution of the LCTs and relevant LCUs is shown in conjunction with the ZTV across a 20 km radius in **Figures 6.6 and 6.11**. The LCTs / LCUs that show theoretical visibility, and which require to be assessed in detail are presented in Section 6.7 and assessed in detail in Section 6.11.

6.6.12 The Blade Tip ZTV, in **Figure 6.4a**, shows that theoretical visibility across the other LCTs / LCUs in the study area will be distant and relatively limited, with the horizontal extent of the four turbines occupying a small proportion of the wider landscapes and seascape contexts influencing these LCTs / LCUs. These factors would reduce the potential for the Proposed Development to redefine the landscape character of these LCTs / LCUs. These LCTs / LCUs have, therefore, been discounted from the detailed assessment owing to the very low likelihood of significant effects arising.

6.6.13 The eastern part of the site is located in the Loch Basin LCT, and the western part of the site is located in the Coastal Hills and Heath LCT, as shown in **Figure 6.4**. While the Coastal Hills and Heath LCT extends along the northern coastline of West Mainland, beyond 3 to 4 km from the Proposed Development, there is only sea. Similarly, to the east while Coastal Basin LCTs are separated by intermittent Coastal Cliffs and Heath LCT and Cliffs LCT, this only extends out to 6 to 7 km from the Proposed Development with the North Atlantic beyond. Inclined Coastal Pasture LCT lines the eastern coast, with the Whaleback Island LCT of Egilsay and Wyre beyond and Moorland Hills LCT set behind the Inclined Coastal Pastures on the southern side of Rousay. To the south of the Proposed Development, the general pattern comprises Moorland Hills LCT down the

eastern side of West Mainland, and Loch Basins LCT down the western side, with a band of Rolling Hill Fringe LCT separating them in the middle.

Coastal Character

6.6.14 In addition to the Assessment of Effects on Landscape Character, this LVIA also considers the effects on coastal character. The basis of this assessment is NatureScot's 2016 publication entitled 'Coastal Character Assessment: Orkney and North Caithness, which presents classification descriptions for regional and local coastal character areas around all the Orkney and North Caithness coastlines.

6.6.15 The distribution of the RCCAs and LCCAs within a 20 km radius and in conjunction with the ZTV is shown in **Figures 6.7 and 6.11**. The RCCAs and LCCAs that show theoretical visibility, and which require to be assessed in detail are presented in Section 6.7 and assessed in detail in Section 6.11.

Landscape Planning Designations

6.6.16 There are three ways in which landscape planning designations are relevant to the LVIA:

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

6.6.17 A number of areas have been attributed a landscape planning designation within the 45 km Study Area, as shown in conjunction with the ZTV in **Figure 6.6a** (45 km radius) and **Figure 6.6b** (20 km radius). These include a nationally important National Scenic Area (NSA) and a number of Gardens and Designed Landscapes (GDLs). There are no regionally designated landscapes on Orkney. The site itself is not subject to any national landscape designations intended to protect landscape quality or scenery considered to be of national importance.

National Scenic Areas

6.6.18 National Scenic Area (NSA) is a conservation designation used in Scotland and administered by NatureScot. NSAs are protected through Scottish Planning Policy (Scottish Government, 2020). The purpose of the designation is to identify areas of exceptional scenery and to protect them from inappropriate development. The Site is not covered by any national landscape designations intended to protect landscape quality. The Hoy and West Mainland NSA is the only NSA to occur in the 45 km study area and it is situated approximately 10 km to the south of the Proposed Development. This NSA covers the southern part of West Mainland, coinciding with the Heart of Neolithic Orkney WHS, and the northern part of Hoy, covering the High Hills in this part of the island.

6.6.19 This Assessment considers the effects of the Proposed Development on the Special Landscape Qualities (SLQs) of the Hoy and West Mainland NSA. SLQs are defined as "*the characteristics that individually, or when combined together, make an NSA special in terms of landscape and scenery.*" The SLQs of the Hoy and West Mainland NSA are documented in two reports: 'Scotland's Scenic Heritage' (Countryside Commission for Scotland, 1978), and 'Special Qualities of the Hoy and West Mainland NSA' (SNH, 2010), which supersedes the 1978 report. The Assessment follows the approach set out in NatureScot's Working Draft 11 entitled 'Guidance for Assessing the Effects on Special Landscape Qualities' (SNH, November 2018). **Appendix 6.2** presents a detailed assessment of the effects of the Proposed Development on the Hoy and West Mainland NSA in line with SNH's draft guidance.

Gardens and Designed Landscapes

6.6.1 Historic Environment Scotland (HES) is responsible for designating Gardens and Designed Landscapes (GDLs), which are protected through Scottish Planning Policy (Scottish Government, 2020). These are contained in an Inventory which can be accessed at http://www.historic-scotland.gov.uk/gardens. The descriptions contained in the Inventory identify the special qualities which merit the designation of each GDL. There are three nationally important GDLs within the 45 km study area as shown in **Figures 6.8 and 6.9**. These are Balfour Castle, at approximately 18 km to the east, Skaill House, at approximately 11 km to the south-west, and Melsetter House, at approximately 37 km to the south. The assessment in respect of all Cultural Heritage assets is presented in Chapter 9.

Wild Land Areas

6.6.2 Wild land is not an environmental designation and is not statutorily protected in the way that National Parks and NSAs are for their SLQs. It is, however, recognised in Scottish Planning Policy (Scottish Government, 2020) as a nationally important mapped resource, which should be afforded protection for its Wild Land Qualities (WLQs). The assessment of the effects on Wild Land Areas (WLAs) follows guidance set out in NatureScot's 'Assessing Impacts on Wild Land Technical Guidance' (NatureScot, 2020) with reference to the 'Description of Wild Land Areas' (SNH, 2017).

6.6.3 The Hoy WLA is the only WLA to occur in the 45 km study area and it is situated 27 km to the south of the Proposed Development. This WLA covers a small area in the central part of Hoy, where there are no roads or development. While the northern part of the WLA overlaps with the southern part of the Hoy and West Mainland NSA, the majority of the area is not protected for its scenic qualities. The Blade Tip ZTV in **Figure 6.2** shows the limited extent of visibility that will occur across the WLA, comprising relatively small patches on the more elevated north facing slopes. The substantial separation distance combined with the limited visibility and influence from closer range wind farms and other developments, means that the Proposed Development will not give rise to significant effects on the WLQs of the Hoy WLA and, therefore, a detailed assessment is not required.

Viewpoints

6.6.4 The LVIA is informed by a series of 19 representative viewpoints, which are selected to represent visibility from landscape character types, landscape planning designations, mapped interests and principal visual receptors around the study area. These include points of specific importance such as recognised viewpoints, designated landscapes, settled areas, important routes and attractions. The viewpoints also attempt to represent visibility from a range of different directions and distances, whilst also highlighting those areas with greatest potential for significant effects to arise. It should be noted that while the majority of the viewpoints are chosen to represent receptors that have potential to undergo a significant effect, this is not always the case, and some viewpoints are included to demonstrate where the thresholds between significant and not significant effects arise or to inform the assessment of the effects on landscape designations.

General Visibility

6.6.5 The ZTVs in **Figures 6.2 and 6.3** illustrate the extent of theoretical visibility across the 45 km and 20 km radius areas. **Figure 6.11** provides a further composite A1 version of the ZTV on a 1:50,000 Ordnance Survey map base. The majority of both the 45 km and 20 km radius areas comprise seascape rather than landscape and, as with the location of the Proposed Development on the north coast of West Mainland, the majority of visibility will occur across the seascape areas.

6.6.6 The ZTVs show that there will be a concentration of almost continuous visibility within the first 3 to 4 km of the Proposed Development, with visibility extending across the north coast and around the Lochs of Swannay, Hundland and Boardhouse. Beyond this, landform will reduce the extents of visibility to varying degrees, with the coastal hills to the east and west, notably reducing the extents of visibility along the western and eastern coasts of West Mainland. To the south visibility will occur in larger patches, albeit with the moorland hills screening visibility from their south-facing slopes and across much of the south-eastern part of West Mainland.

6.6.7 Out beyond 10 km, theoretical visibility will extend across the flatter basins of Loch of Harray and Loch of Stenness, albeit patchier in extents across the coastal hills to the west. Further south, out beyond 20 km, theoretical visibility will extend across Hoy Sound and Clestrain Sound to reach the northern parts and north-facing slopes of Graemsay and Hoy. There is practically no visibility shown to occur across the urban area of Stromness

6.6.8 The moorland hills along the eastern coast of West Mainland screen a substantial part of eastern and south-eastern West Mainland, the Wide Firth and Central Mainland with no visibility shown to occur from the urban area of Kirkwall. Visibility does resume further east, where large patches of visibility occur across central and northern parts of Shapinsay, albeit out beyond 20 km from the Proposed Development. Visibility also occurs around the southern and western coasts of closer range Rousay at a minimum of 6 km and from Wyre at 12 km.

Viewpoint selection

6.6.9 The Viewpoint Assessment is used to inform and illustrate the Assessment of Effects on Landscape Character as well as the Assessment of Effects on Views and Principal Visual Receptors. The viewpoints used in the Assessment are set out in Table 6.3, and detailed assessment for each of these is presented in Section 6.12. The viewpoint locations are shown in conjunction with the blade tip ZTV in **Figures 6.2** (45 km), **6.3** (20 km) **and 6.11** (A1 composite) and the hub height ZTV on **6.4** (45 km) **and 6.5** (20 km).

Table 6.3 – Representative Viewpoints

No	Viewpoint	Grid Reference	Distance to nearest turbine	Receptors represented
1	A966, Loch of Swannay	330492 E 1029601 N	2.2 km	Road-users / Residents
2	A966, Hundland Road junction	329328 E 1029601 N	1.4 km	Road-users / Residents
3	Vinquin Hill, Costa	331932 E 1028381 N	1.5 km	Road-users / Residents
4	Mid Hill	333579 E 1024882 N	3.2 km	Walkers / Visitors
5	Kirbuster, Loch of Hundland	328849 E 1026214 N	1.5 km	Road-users / Residents
6	Brough of Birsay	323898 E 1028540 N	6.0 km	Walkers / Visitors
7	A967, Birsay Community Hall	325326 E 1026628 N	4.5 km	Road-users / Residents
8	A967, Twatt	326721 E 1024881 N	4.0 km	Road-users / Residents
9	A967, near Rosemire	326826 E 1021617 N	6.3 km	Road-users / Residents
10	A967, near Queena	326172 E 1016764 N	10.9 km	Road-users / Residents
11	Ring of Brodgar	329422 E 1013286 N	13.6 km	Walkers / Visitors
12	Vishall Hill	338704 E 1025058 N	7.9 km	Walkers / Residents
13	B9057 north-west of Dounby	331013 E 1021507 N	5.4 km	Road-users / Residents
14	Skara Brae	323113 E 1018727 N	10.9 km	Walkers / Visitors
15	Vestra Fiold	324165 E 1022295 N	7.6 km	Walkers

No	Viewpoint	Grid Reference	Distance to nearest turbine	Receptors represented
16	A966 west of Abune the Hill	327468 E 1028628 N	2.7 km	Road-users / Residents
17	Westside, Rousay	337403 E 1029801 N	7.0 km	Walkers / Residents
18	Hillock Road, Shapinsay	353892 E 1022291 N	23.3 km	Residents / Road-users
19	Ward Hill, Hoy	322893 E 1002188 N	25.8 km	Walkers

Trends and Projected Future Baseline

6.6.10 In terms of Climate Change, the Sixth Assessment Report produced by the International Panel for Climate Change makes the following headline statements;

"A. The Current State of the Climate

A.1 It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.

A.2 The scale of recent changes across the climate system as a whole and the present state of many aspects of the climate system are unprecedented over many centuries to many thousands of years.

A.3 Human-induced climate change is already affecting many weather and climate extremes in every region across the globe. Evidence of observed changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones, and, in particular, their attribution to human influence, has strengthened since the Fifth Assessment Report (AR5)."

6.6.11 The key features of climate change in respect of the Scottish climate are generally warmer and wetter conditions. As well as an increase in rainfall, there will also be a greater risk of flooding with more frequent occurrence of heavy downpours over short periods of time. As settlement and roads are typically located along the coasts and valley floors of the study area, this means these areas are most susceptible to flooding. Farmland will also be increasingly at risk, especially where run-off from adjacent hillsides washes into lower-lying areas or where rivers spread into farmed floodplains. OIC address the risks of flooding in their Flood Risk Management Plan (2016). Warmer conditions are also giving rise to the spread of pests and diseases, which are not only endangering tree species, but also the wildlife dependent on tree cover for their survival.

6.6.12 The most notable changes which are occurring throughout the study area are the increase in wind farm developments. **Figure 6.12** shows the extent of operational, under construction and consented wind farm developments, as well as those at application stage and in scoping. The approach of the assessment to cumulative effects is outlined below and a more detailed assessment is contained in 'Assessment of Cumulative Effects' Section 6.13. Carbon reduction targets and Scottish Government policy are likely to continue to drive the development of renewable energy both and offshore and its associated grid connections. It must be noted that older wind farm consents are time limited and that in the absence of applications for extension of operation or repowering of wind farms, decommissioning would be the default.

6.6.13 Existing settlements at close range are relatively small and their growth has typically occurred incrementally. The OLDP (2017) shows very limited provision for future growth in surrounding settlements. The majority of developments in the rural area comprise individual properties or small clusters of properties, which are unlikely to grow substantially.

Cumulative Developments

6.6.14 The Cumulative Wind Farm Plan in **Figure 6.12** highlights the limited number and size of wind farm developments within the Study Area. The only three operational developments in the first 10 km radius of the Proposed Development are the operational Burgar Hill, Hammars Hill and the single turbine at Holodykes. Burgar Hill is the closest, at a minimum of approximately 2 km to the south-east and with Hammars Hill at a minimum of approximately 7.5 km in the same direction. In terms of consented developments, the four turbines of Costa Head are the closest at a minimum of approximately 2 km to the north, and with the six turbines of Quanterness at a minimum of approximately 16 km to the south-east.

6.6.15 Table 6.5 below, sets out all of the wind farms within the 45 km study area, highlighting those that will have an influence on the cumulative assessment. Baseline operational and under construction cumulative wind farms are taken into consideration in the solus assessment and cumulative assessment of the Proposed Development, as presented in Sections 6.11 and 6.12. Consented and application-stage wind farms are considered in the cumulative assessment, presented in Section 6.13, along with operational and under construction wind farms.

Table 6.5: Cumulative Developments

Wind Farm	Status	Number of turbines	Height of turbines (m)	Distance between nearest turbines	Relevant to cumulative assessment
Barnes of Ayre	Operational	3	67	35.9	No, owing to distance and small size.
Burgar Hill	Operational	6	76 - 116	2.9	Yes, owing to proximity and medium size.
Crowness Business Park	Operational	1	67	18.9	No, owing to distance and small size.
Gallowhill, Westray	Operational	2	67	22.6	No, owing to distance and small size.
Hammers Hill	Operational	5	67	8.2	Yes, owing to relative proximity, medium size and inter-visibility.
Holodykes	Operational	1	80	5.4	Yes, owing to relative proximity and inter-visibility.
Howe, Shapinsay	Operational	1	67	22.5	No, owing to distance and small size.
Kingarly Hill	Operational	1	67	12.7	Yes, owing to relative proximity and inter-visibility.
Newark	Operational	1	59.7	25.3	No, owing to distance and small size.
Northfield, Burray	Operational	1	70	33.4	No, owing to distance and small size.

Wind Farm	Status	Number of turbines	Height of turbines (m)	Distance between nearest turbines	Relevant to cumulative assessment
Ore Brae, Hoy	Operational	1	67	33.5	No, owing to distance and small size.
Rennibister	Operational	1	67	16.5	No, owing to distance and small size.
Sandy Banks	Operational	1	77	23.7	No, owing to distance and small size.
Spurness Point	Operational	5	100	30.2	No, owing to distance and medium size.
Stronsay Devt. Trust	Operational	1	67	31.5	No, owing to distance and small size.
Upper Stove, Deerness	Operational	1	67	33.1	No, owing to distance and small size.
West Hill, Flotta	Operational	1	100	33.3	No, owing to distance and small size.
Westray Development Trust	Operational	1	77	22.9	No, owing to distance and small size.
Akla	Under Construction	1	77	20.2	No, owing to distance and small size.
Berriedale	Under Construction	1	67	37.0	No, owing to distance and small size.
Work Farm	Under Construction	2	67	21.7	No, owing to distance and small size.
Costa Head	Consented	4	125	2.3	Yes, owing to proximity and medium size.
Hammers Hill Extension	Consented	2	150	7.3	Yes, owing to proximity and large size.
Hesta Head	Consented	5	125	41.2	No, owing to distance, medium size and limited intervisibility.
Hoy	Consented	6	149.9	32.5	No, owing to distance, medium size and limited inter-visibility.
Hoy Community Turbine	Consented	2	74	33.5	No, owing to distance and small size.

Wind Farm	Status	Number of turbines	Height of turbines (m)	Distance between nearest turbines	Relevant to cumulative assessment
Quanterness	Consented	6	149.9	16.2	No, owing to distance, medium size and limited inter-visibility.
Faray	Application	6	149.9	23.7	No, owing to distance, medium size and limited inter-visibility.

6.7 Receptors Brought Forward for Assessment

6.7.1 Through a combination of the scoping process, Baseline Assessment and Site Work, the following landscape and visual receptors have been identified as having potential to undergo significant effects as a result of the Proposed Development. A Preliminary Assessment of the LCTs / LCUs is presented at Section 4.7.1 of the EIA Scoping Report for the Nisthill Wind Farm and this has informed the selection of LCTs / LCUs carried through into the LVIA. The following receptors, therefore, form the basis of the assessment and are assessed in detail in Section 6.11 and 6.13.

Landscape Elements

- Agricultural Land.

Landscape Character Types and Units

- 296 Whaleback Islands LCT: 296A Eynhallow LCU;
- 302 Inclined Coastal Pasture LCT: 302A Evie LCU;
- 302 Inclined Coastal Pasture LCT: 302B Rousay LCU;
- 305 Enclosed Bays LCT: 305A Birsay LCU;
- 306 Coastal Hills and Heath LCT: 306A North Coast LCU;
- 306 Coastal Hills and Heath LCT: 306B Ravi Hill LCU;
- 306 Coastal Hills and Heath LCT: 306C Vestra Fiold LCU;
- 306 Coastal Hills and Heath LCT: 306E Rousay LCU;
- 307 Cliffs LCT: 307A Marwick Head LCU;
- 309 Peatland Basin LCT: 309A Hillside LCU;
- 309 Peatland Basin LCT: 309C Rousay LCT;
- 310 Loch Basin LCT: 310A Swannay LCU;
- 310 Loch Basin LCT: 310B West Mainland LCU;
- 313 Rolling Hill Fringe LCT: 313A Hillside LCU;
- 313 Rolling Hill Fringe LCT: 313B West Mainland LCU;
- 314 Moorland Hills LCT: 314A West Mainland LCU; and
- 314 Moorland Hills LCT: 314D Rousay LCU.

Coastal Character Areas

- 10: Rousay North;
- 11: Rousay South;
- 12: Egilsay and Wyre;
- 26: Marwick Head and Bay of Skaill; and
- 27: Brough Head to Costa Head.

Landscape Designations

- Orkney – Hoy and West Mainland NSA (**Appendix 6.2**).

Viewpoints (also representing Principal Visual Receptors)

- Viewpoint 1: A966, Loch of Swannay;
- Viewpoint 2: A966, Hundland Road junction;
- Viewpoint 3: Vinquin Hill, Costa;
- Viewpoint 4: Mid Hill;
- Viewpoint 5: Kirbuster, Loch of Hundland;
- Viewpoint 6: Brough of Birsay;
- Viewpoint 7: A967, Birsay Community Hall;
- Viewpoint 8: A967, Twatt;
- Viewpoint 9: A967, near Rosemire;
- Viewpoint 10: A967, near Queena;
- Viewpoint 11: Ring of Brodgar;
- Viewpoint 12: Vishall Hill;
- Viewpoint 13: B9057 north-west of Dounby;
- Viewpoint 14: Skara Brae;
- Viewpoint15: Vestra Fiold;
- Viewpoint16: A966 west of Abune the Hill;
- Viewpoint 17: Westside, Rousay;
- Viewpoint 18: Hillock Road, Shapinsay; and
- Viewpoint 19: Ward Hill, Hoy.

6.8 Potential Effects

6.8.1 Likely effects are those which could result from the construction, operation and decommissioning of a wind farm, according to the characteristics of the site, the Proposed Development and the landscape and visual receptors and the interactions between these factors. Table 6.4 describes typical landscape and visual effects that can occur from a wind farm. Their inclusion in the table does not imply that they will occur, or occur as significant effects, as a result of the Proposed Development.

6.8.2 A variety of landscape and visual mitigation measures have been incorporated through the iterative design of the Proposed Development in order to prevent, reduce or offset likely

landscape and visual effects. These are described in Section 6.9: Standard Mitigation presented below. The residual effects of the Proposed Development are those effects remaining after mitigation, which will become apparent under construction or operation. These are assessed in Section 6.11: Residual Effects on Landscape and Section 6.12: Residual Effects on Views.

Table 6.4: Potential Landscape and Visual Effects

Activity	Specific Element	Likely Effects	Likely Sensitive Receptors
Construction (or decommissioning)	Construction plant, temporary construction compound, substation, access tracks, turbines, hard-standings, landform changes, borrow pits (construction only), cranes, turbines.	Temporary / permanent physical effects on landscape fabric Temporary / permanent effects on landscape character Temporary / permanent effects on visual amenity	Physical landscape features e.g. rough moorland / farmland Landscape character receptors – landscape and coastal character types and designated landscapes Views – experienced by different receptors e.g. residents, road users, walkers
Operation	Turbines, access tracks, aviation lighting, substation, hard standings, restored borrow pits and landform changes.	Long term effects on landscape fabric Long term effects on landscape character Long term effects on visual amenity during daytime and night-time	

6.8.3 The effects of the Proposed Development on landscape and visual receptors will arise principally from the construction, operation and possible future decommissioning of the turbines, substation, borrow pit, construction compound, earthworks and access tracks. The temporary construction facilities, such as cranes, construction vehicles, construction compounds, laydown areas and delivery vehicles required during construction will also have effects on the landscape and visual resource. It is anticipated that construction of the Proposed Development will take up to approximately 12 months; the construction effects identified are, therefore, predicted to occur during this period and end at the start of the operational stage. While the most widespread effects during the construction phase will relate to the tall cranes, it is anticipated that two months will be the maximum period during which the cranes will be active on the site, making this an especially short-term effect. A Construction Management Environment Plan (CEMP) will be prepared that will further detail the mitigation measures to be implemented during the construction phase.

6.8.4 It is anticipated that the Development will be in operation for approximately 40 years. On completion of its operational life the site may be re-commissioned following further consent and/or approvals or will be decommissioned. During decommissioning, or replacement of turbines, it is anticipated that the levels of effect would be similar but of a lesser level than those assessed during construction. The effects of decommissioning are, therefore, not assessed separately. Decommissioning would be undertaken in line with best practice processes and methods at that time and will be managed through an agreed Decommissioning Environmental Management Plan (DEMP).

6.9 Standard Mitigation

6.9.1 This section describes the landscape and visual mitigation measures which have been incorporated through the iterative design of the Proposed Development in order to prevent, reduce or offset potentially negative landscape and visual effects caused by the construction and operation of the Proposed Development. It should be read in conjunction with the full project description and the rationale for site selection and scheme design in Chapter 2 which presents consideration of the potential effects on a number of key topics. In this chapter, site selection and layout design are considered in respect of the potential effects on landscape and visual receptors.

Site Selection

6.9.2 The site is located close to the north coast of West Mainland, on and around Hundland Hill (106 m AOD) which sits between Loch of Swannay to the north-east and Loch of Hundland to the south-west. The Spatial Framework for the Orkney Islands shows that most of the site lies within a Group 3 area, where there is potential for wind farm development, while the southern edge of the site lies within a Group 2 area, which is an area of significant protection, albeit relating to soils and therefore not a relevant constraint in respect of landscape and visual considerations. Group 3 areas are defined as areas with potential for wind farm development, with the guidance in SPP stating; *"…wind farms are likely to be acceptable subject to detailed consideration against identified policy criteria."*

6.9.3 The site selection reflects the relative sensitivity of the different landscapes across West Mainland. The southern part of West Mainland is covered by the Hoy and West Mainland NSA which denotes the national importance of this area. The northern part of West Mainland, where the site is located, is not covered by any landscape planning designations, which would otherwise denote a special value.

6.9.4 The location of the Proposed Development close to the north coast of West Mainland, means that much of the extents of visibility occur across the adjacent seascape to the north and west, where there will be very few visual receptors. The wider landscape of West Mainland and the islands of the study area have some areas of higher land that provide substantial, beneficial screening of the Proposed Development. This is shown in the ZTV in **Figure 6.2**. There is also an existing influence from operational wind farms in this northern part of West Mainland, with Burgar Hill and Hammars Hill wind farms located on the moorland hills along the eastern coast.

6.9.5 The Mainland of Orkney is a settled and cultivated landscape, with dispersed settlements and small villages and towns scattered across much of its extents. It is, therefore, not possible to site a wind farm that has no effect on residential visual amenity. The location of the site does, however, benefit from an especially low level of rural development, with relatively few residential developments within close proximity.

Layout Design

6.9.6 The design of the wind farm layout is a vital part of the EIA process as it is the stage where the most notable contribution can be made to mitigate all potential effects. A full description of how the layout has been designed to mitigate potential effects in respect of all relevant EIA topics is presented in **Chapter 2**. In respect of LVIA considerations, thoughtful design helps to create a wind farm which relates both to the underlying and surrounding landscape and which appears as a compact and well-contained feature in surrounding views. The iterative design process allows the effects of different wind farm layouts to be assessed then modified to prevent, reduce or offset effects. The residual effects reported in the following section, therefore, include embedded mitigation in the form of design refinement and consideration against landscape and visual objectives, for example, arranging turbines with respect to landform features, particular consideration of a view of the wind farm from a highly valued landscape, or ensuring the arrangement of turbines is aesthetically balanced from sensitive viewpoints and visual receptors.

6.9.7 In order to minimise negative effects on the landscape and views, a number of design principles were considered. Insofar as possible, given other technical and environmental constraints on the site, these principles sought to reduce significant effects through alterations to layout, design and

siting, management practices and mitigation. The design objectives are based upon the characteristics of the existing landscape and visual environment described in Section 6.6 above, and are set out as follows:

- To create a compact and well-defined group of turbines that appears well contained within its landscape setting; visually legible design, insofar as was possible on a site, which is constrained by other environmental and technical issues, and create a simple, positive layout, viewed consistently from different positions;
- To ensure that the proposed turbines, access tracks and other infrastructure relate well to the underlying landform and appears clearly associated with Hundland Hill;
- To arrange the turbines to create a simple and well-balanced layout, with turbines evenly spaced and without too much disparity between relative base height elevations;
- To ensure that the infrastructure follows the existing patterns and shapes of the landform, by tying in with existing access tracks, and following baseline contours.

6.9.8 The iterative design process has refined the original layout to help mitigate the likely effects of the Proposed Development on the landscape and visual receptors. The sequence of iterative design layouts is illustrated in **Chapter 2**.

6.10 Additional Mitigation

6.10.1 There is very limited opportunity to mitigate landscape and visual effects outwith standard mitigation measures undertaken in the iterative design process. Where short term effects on the landscape elements of the peat and landcover would occur during the construction phase, these would be mitigated through the implementation of the Habitat Management Plan, which includes peatland and vegetation restoration. There is no further additional mitigation to be considered in the LVIA.

6.10.2 The residual effects of the Proposed Development on landscape and visual receptors, that is those that will remain after mitigation, are assessed in the sections presented below. These are categorised into effects on landscape elements, effects on landscape character, and effects on views, as described previously. Cumulative effects are also assessed in these sections as these effects relate to the operational and under construction wind farms that make up the baseline cumulative context, rather than any proposed wind farms.

6.11 Residual Effects on Landscape Receptors

Introduction

6.11.1 The first category of effects covered in the assessment is the physical effects on landscape elements. These are the direct effects on the fabric of the site, such as the removal of ground cover vegetation. Effects on landscape elements are found only on the site, where existing landscape elements may be removed or altered by the Proposed Development. This category of effects is made up of landscape elements and, in this case, the two elements involved are improved pasture and rough moorland. The methodology for the assessment of physical effects is described in full in **Appendix 6.1**.

Assessment of Effects on Landscape Elements

Agricultural land

Baseline

6.11.2 Farmland is by far the predominant land use on Orkney and characterises much of the Orkney landscape. Farms are typically small in scale with small to medium sized fields, enclosed by post and wire fencing or drystone dykes, and containing improved or semi-improved pasture or arable crops. The site is located across Hundland Hill which is used to farm cattle. The land cover

comprises improved pasture with areas also of rough grazing, and while some definition of fields is formed by post and wire fencing, Hundland Hill appears as an open expanse of improved pasture and rough grazing. There are no hedgerow boundaries or trees on the site and no other areas of natural vegetation.

Sensitivity

6.11.3 The value of the agricultural land is medium. There are no national or regional landscape designations which would otherwise denote a special value to this landscape.

6.11.4 The susceptibility of the agricultural land to the Proposed Development is medium. The proposed turbines and associated infrastructure will be located on the agricultural land which occupies the site. This will result in the loss of improved pasture and rough grazing where access tracks, hard-standings and turbine foundations will be constructed. The improved pasture has been modified from its natural state by centuries of farming, such that there is little biodiversity, with the vegetation which occurs comprising a limited species of grasses. While there is more natural vegetation and biodiversity in the areas of rough grazing, this is still relatively limited. There will, therefore, be little loss to natural vegetation and biodiversity in these areas.

6.11.5 The susceptibility of the agricultural land is moderated by the extent to which it has already been modified by cultivation, the ability of some of the agricultural land disturbed through the construction period to be reinstated and the limited extent of the land to be disturbed in proportion to the remainder of the site and the wider provision of agricultural land across Orkney.

6.11.6 The combination of the value of the agricultural land and its susceptibility to the Proposed Development gives rise to an overall **medium** sensitivity.

Magnitude of change

6.11.7 During the construction phase, the Proposed Development will lead to the loss of patches of the existing agricultural land where new access tracks, permanent hard-standings, turbine foundations, the substation, borrow pit and the construction compound will be constructed, as illustrated in **Figure 1.2**. The effect of this loss will be moderated by the fact that the majority of the agricultural land will remain unaffected and continue to be used for sheep grazing. Furthermore, no mature or well-established vegetation will be lost, and the vegetation lost is relatively limited in terms of biodiversity. Grasses will be able to recolonise areas of temporary removal, easily and post construction, areas of temporary removal will be reinstated.

6.11.8 During the operational phase, ground over the borrow pit and temporary construction compound will be reinstated which will reduce the losses resulting from the construction phase. Access tracks, hard-standings, foundations and the substation are permanent components during the operational phase of the project and, therefore, the effect of these losses will carry over into the operational phase.

6.11.9 Taking all these factors into account, the Proposed Development will give rise to a **medium-low** magnitude of change on the site during the construction phase and operational phase.

Significance of Effect

6.11.10 The effect of the construction of the Proposed Development on the agricultural land of the site during the construction and operational phases will be **moderate / minor** and **not significant**. This finding relates to the modified state of the agricultural land, the limited extent of the agricultural land that will be lost, the wider extent of agricultural land across Orkney which limits the scarcity value of this physical element, and the ease with which agricultural grasses can be reinstated post-construction.

Assessment of Effects on Landscape Character

Introduction

6.11.11 Landscape character is the distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and the way that this pattern is perceived. Effects on landscape

character are manifested both on the site, where the pattern of elements that characterises the landscape will be directly altered by the addition of the Proposed Development to the landscape; and off-site, around the study area, where visibility of the Proposed Development may alter the way in which this pattern of elements is perceived. For example, if the Proposed Development is visible from the Rousay LCU of the Moorland Hills LCT, the perceived experience of this area may be altered. This is because the visibility of the Proposed Development introduces new external influences and characteristics, despite its physical location in a different, geographically separate, LCT.

6.11.12 Landscape character receptors fall into two groups:

- LCTs/LCUs; and
- Designated areas.

6.11.13 The Assessment of Effects on these receptors is described in the following sections of this chapter. The detailed methodology for the assessment of effects on landscape character is described in **Appendix 6.1**.

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

6.11.15 This is because the effects on viewpoints are assessed within the context of a specific outlook towards the site and are usually specifically selected to gain a direct view over the Proposed Development. The Proposed Development is, therefore, the principal consideration in the viewpoint assessment, and influences that lie in other areas of the view are of lesser relevance to the assessment. The landscape character of a receptor is not, however, determined so specifically by the outlook over the Proposed Development, and there are many other considerations, both visual and perceptual, that combine to give an area its landscape character. This means that the degree of influence of the Proposed Development on landscape character may be lower than its influence on a specific view. Viewpoints are referred to in this assessment as they do give a useful indication of the appearance of the Proposed Development from the landscape receptors, but the level of magnitude of change may vary between the viewpoint assessment and the landscape character assessment.

6.11.16 This is particularly true of areas that lie slightly further away from the site. In the immediate vicinity of the site, typically up to around 2 km to 3 km away – the magnitude of change on viewpoints and landscape character is likely to be similar, but beyond this, the magnitude of change on landscape character is found to often diminish more rapidly as the influence of the turbines is subsumed in the many other influences on landscape character.

Assessment of Effects on LCTs and LCUs

6.11.17 The LCTs and LCUs are shown in conjunction with the ZTV in **Figure 6.6** and **Figure 6.11**. The following LCTs / LCUs have the potential to undergo significant effects and therefore require a detailed assessment in the LVIA.

296 Whaleback Islands LCT: 296A Eynhallow LCU

Baseline

7.1.1 In the Orkney archipelago, the Whaleback Island LCT occurs across nine small and either sparsely populated or uninhabited islands, including Gairsay, Egilsay, Faray and Eynhallow. The Whaleback Islands LCT is characterised by a smooth convex landform, which forms a dome shape over these roughly oval shaped islands. The landform is low-lying with heights ranging between 20 and 50 m AOD, and while mostly convex, there are also local undulations, terraces and depressions. There is an absence of trees and the farmland, which covers most of these islands, consists of fields of

improved pasture, with arable in the more fertile and sheltered patches. There are also areas of rough grasses, heather moorlands and peat bogs where the land remains uncultivated. The coastal edge comprises mostly shingle beaches and low rock platforms with occasional low cliffs forming more of a feature. Settlement typically comprises occasional large farmsteads and scattered crofts accessed by a limited network of minor roads and tracks.

7.1.2 The Whaleback Islands LCT covers the full extents of the small island of Eynhallow, which measures approximately 1 km north to south and east to west. It is situated in the Eynhallow Sound, just over 1 km from the north-east coast of West Mainland and just under 1 km from the south-west coast of Rousay. It comprises one oval shaped hill which rises to a high point of 40 m AOD, with a lower coastal shelf to the east. There are no inhabited properties on the island, only the ruined remains of Eynhallow Monastery and a couple of abandoned crofts. There are no roads on the island, only a track connecting the two jetties. The land around the coastal edges is used as semi-improved pasture while in the central core, there remains an area of rough grazing. While there is little enclosure, there are the remnants of old field boundaries across the island.

7.1.3 Despite Eynhallow being close to the inhabited islands of West Mainland and Rousay, the NatureScot citation describes there being a sense of isolation and solitude, especially on smaller islands such as Eynhallow where there is an absence of human population and presence of abandoned buildings and field systems. The citation also highlights how the Whaleback Islands form focal points in views from surrounding islands. Conversely, views from Eynhallow are drawn out to neighbouring West Mainland and Rousay. The site is screened by the hills along the coastal edge of West Mainland. Burgar Hill forms a visible feature on the Moorland Hills to the south-west at a minimum distance of approximately 2.8 km.

Sensitivity

7.1.4 The value of this LCU is medium-high. While there are no national or regional landscape designations covering the island, the Whaleback Islands LCT is a characteristic feature of the Orkney archipelago and there is value in terms of the scenic qualities of this small island and its unique shape.

7.1.5 The susceptibility of this LCU to the effects of the Proposed Development is medium. Eynhallow is an especially small and relatively flat island set in a narrow sound, with West Mainland and Rousay presenting an especially close influence on baseline landscape character. The key characteristic of this island is its remote, isolated and largely undeveloped character. The north-east coast of West Mainland presents a prominent coastal edge, characterised by farmland and settlement, as well as existing wind farm developments. While the strong association between Eynhallow and the location of the site, owing to the openness across the intervening water, raises the susceptibility, this is tempered by existing human influences.

7.1.6 The combination of the value of this LCU and its susceptibility to the effects of the Proposed Development results in an overall **medium-high** sensitivity.

Magnitude of change

6.11.18 The ZTV in **Figure 6.6** shows that visibility of all four turbines would occur across the western and central parts of the island but with no visibility across the eastern part. The minimum distance between the closest turbine and the closest boundary of the LCU would be approximately 5 km.

6.11.19 The magnitude of change on the landscape character of this LCU would be **medium**. The four turbines would be seen set behind the ridge of the low coastal hills which line the north-east coast of the West Mainland. While the small number of turbines means they would occupy only a very small extent of the wider context, and despite the existing presence and influence of close range Burgar Hill Wind Farm set along the same coastal hills, the size of the 180 m tall turbines and the movement of their blades would ensure they form a prominent feature that would influence the character of this relatively remote and isolated island. Where no visibility would occur across the eastern side, there would be **no change**.

Significance of effect

6.11.20 The effect of the Proposed Development on the landscape character of this LCU would be **moderate** and **significant** across the western and central parts, with **no effect** on the eastern side of the island.

302 Inclined Coastal Pasture LCT: 302A Evie LCU

Baseline

7.1.7 The Inclined Coastal Pasture LCT occurs intermittently around the coastlines of the Mainland of Orkney and its islands. This LCT is characterised by relatively low-lying pastoral farmland, set along the coastal edge where the landform falls gently towards the shoreline. The field pattern is typically recti-linear with a predominant alignment towards the coastal edge. While traditional stone dykes emphasise the enclosure, the more common post and wire fences lack the same definition. Settlement typically comprises small scale clusters of resettled crofts where field patterns are of a smaller scale, or occasional large farmsteads or isolated properties. Coastal roads tend to follow the alignment of the coastal edge with access being drawn either seaward or landward off these routes.

7.1.8 SNH's Orkney Landscape Character Assessment (1998) makes the following comment regarding the relationship between this LCT and the sea; "*The orientation of the land to the sea is a particularly characteristic feature, the fields appearing to drop away and merge with the sea. Views out to sea and to other islands are, therefore, extensive, while views inland are more restricted by higher land or hills, and the open skyline dominates.*"

7.1.1 The Evie LCU covers the north-east coast of West Mainland from Costa Head in the north-west to Wood Wick in the south-east. The closest part to the site is Vinquin Hill which lies a minimum of approximately 1.6 km to the east, with the Loch of Swannay separating them. This LCU is mostly set along a coastline where the incline is from south-west to north-east, such that the landform is largely orientated towards Eynhallow Sound and away from the location of the site. It is only across the area to the north of Burgar Hill and the more exposed Aiker Ness on the east coast. The Evie LCU is relatively well inhabited with a linear pattern of properties along the A966 and a dispersal of houses across the surrounding rural and coastal areas. The road and field patterns are strongly recti-linear with north-west to south-east alignment forming the main route parallel to the coast and north-east to south-west roads and boundaries running across this. There are a number of small-scale single turbines in this LCU and larger scale Burgar Hill and Hammars Hill wind farms close to the boundary in the adjacent Moorland Hills LCT.

Sensitivity

7.1.1 The value of this LCU is medium. This LCU is not covered by any national or regional landscape designations which would otherwise denote a special value. Furthermore, the landscape is typical of much of Orkney's coastline, comprising a settled and farmed landscape with rural development. The value of this landscape relates more to its relationship with the coastal landscape along the Eynhallow Sound, and the association that is drawn between these coastal landscapes and seascapes.

7.1.2 The susceptibility of this LCU to the effects of the Proposed Development is medium. Despite the proximity of this LCU to the site, the orientation of the landform is in the opposite direction, out across the sea rather than inland towards the site. The susceptibility of the LCU is also moderated by the extent of human influences within this LCU from roads, rural settlements, and single wind turbines, with wind farms presenting a larger scale influence along the western boundary.

7.1.3 The combination of the value of this LCU and its susceptibility to the effects of the Proposed Development results in an overall **medium** sensitivity.

Magnitude of change

6.11.21 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would be very limited, with no visibility across the majority of the LCU and only three patches occurring - one to the east of Costa Hill, one to the north of Burgar Hill and one across Aiker Ness. The minimum distance

between the closest turbine and the closest patch of visibility would be approximately 1.6 km, occurring to the north of Burgar Hill, with the patch to the north at approximately 2.2 km and the patch to the east at approximately 6.9 km.

6.11.22 There would be no change on the landscape character where there would be no visibility across the majority of the LCU. In those close-range localised patches to the north of the LCU, the magnitude of change would be **medium-high** as the turbines would be seen as especially tall and moving structures, appearing at variance with the predominantly rural character. While there is an existing influence on these localised areas from the nearby Burgar Hill Wind Farm, the larger scale of the Proposed Development will make it the new defining feature in this landscape context. From Aiker Ness, the magnitude of change would be **medium-low** owing to the greater separation distance, the predominant contextual influence of the sea and islands, partial screening from intervening landform, which reduces visibility to blades only (see **Figure 6.5**) and the closer-range influence from both Burgar Hill and Hammars Hill wind farms.

Significance of effect

6.11.23 The Proposed Development would have **no effect** on the majority of this LCU. There would, however, be **moderate** and **significant** effects coinciding with the small patches of localised visibility that would occur in the north of the LCU and a **moderate / minor** and **not significant** effect across Aiker Ness.

302 Inclined Coastal Pasture LCT: 302B Rousay LCU

Baseline

6.11.24 The Rousay LCU fits with the general description of the Inclined Coastal Pasture LCT presented above. The LCU wraps around the coastal edge of the island of Rousay from Scabra Head in the west, through the south, to Brecks o' Banks in the east. The LCU forms a narrow band along the coastal edge extending between approximately 400 m and 1 km inland. The Moorland Hills LCT forms the core of the island, and it is from the boundary with this LCT of rising landform that the Inclined Coastal Pasture LCT land slopes down to the coastal edge.

6.11.25 The location of the Rousay LCU around the coastal edge means that it is characterised by a concentration or roads and settlement. The B9064 is the main road on the island and sits within this LCU, connecting to the ferry port at Brinian and providing access to a series of rural developments spread along its length. This coastal edge is also characterised by small fields of improved pasture which are used for livestock grazing. Historically, this land would have been divided into small landholdings associated with the crofts, but now consolidated into small farms. There are a number of small-scale single turbines in this LCU, associated with rural farms and other properties. This LCU is represented by Viewpoint 17: Westside, Rousay as shown in **Figure 6.35**.

Sensitivity

6.11.26 The value of this LCU is medium. This LCU is not covered by any national or regional landscape designations which would otherwise denote a special value.

6.11.27 The susceptibility of this LCU to the effects of the Proposed Development is medium. The key characteristic of this LCU is its cultivated and settled nature. While the eastern part of the LCU is orientated towards Egilsay and the southern part is orientated towards Wyre, the south-western and western parts are orientated towards West Mainland, where the site is located. While this association raises the susceptibility of the LCU, this is also moderated by the direct influence from the single turbines in this LCU and indirect effects from Burgar Hill and Hammars Hill wind farms on West Mainland at approximately 4.5 km and 4.7 km from the closest LCU boundary.

6.11.28 The combination of the value of this LCU and its susceptibility to the effects of the Proposed Development results in an overall **medium** sensitivity.

Magnitude of change

6.11.29 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would be almost continuous from the west through to the south and then with no visibility occurring from the south through to the east. This relates to the openness of the west and south-west coast with views extending over Eynhallow Sound to West Mainland where the Proposed Development would be located. In contrast, the south and east coast are screened from the Proposed Development mainly by the intervening Moorland Hills LCT at the core of Rousay.

6.11.30 There would be a **low** magnitude of change or **no change** on the landscape character across the southern and eastern parts of the LCU where there would be limited or no visibility of the Proposed Development. The western and south-western parts of the LCU would be influenced by all four turbines. These would occur at a minimum of 6.7 km between the closest turbine and closest edge of the LCU, such that they would appear as prominent and dynamic structures. While the magnitude of change would be moderated both by the influence from closer range single turbines in this LCU, and wind farms on West Mainland at 4.5 km and 4.7 km from the closest boundary of the LCU, the magnitude of change would be **medium** owing to the larger size of the proposed turbines. This also takes into account the contained extent of the four turbines within the wider context and their partial concealment behind the intervening coastal hills.

Significance of effect

6.11.31 The Proposed Development would have a **not significant** effect at a **minor** level or **no effect** on the southern and eastern parts of this LCU. There would, however, be a **moderate** and **significant** effect coinciding with the extent of visibility that would occur across the western and south-western parts of this LCU.

305 Enclosed Bays LCT: 305A Birsay LCU

Baseline

7.1.4 The LCT is characterised by shallow coastal basins at the mouth of short inland valleys or depressions, around sand and shingle bays and enclosed by low headlands. Generally, below 20 metres above sea level, the landscape rises slightly in the hinterland. Small water courses draining from adjoining low-lying areas often pass through the LCT. Behind the coastline, the LCT is predominantly pasture with some wetland, watercourses, riparian scrub and infrequent small woodlands. Lower land contains small farms and estate farms with crofts located towards higher land. Views of the sea are framed by curving coastline and headlands. This LCT is generally perceived as isolated and remote, beyond the visitor season when accessible beaches become busy.

7.1.5 The Birsay LCU covers a small coastal area on the west coast of West Mainland, to the immediate south of Brough of Birsay and there is a general fall in the landform, west towards the coast. This LCU is enclosed to the north and south by the Coastal Hills and Heath LCT and, although the landform to the north rises only gently, to the south it rises more steeply to form a well-defined enclosing ridgeline. To the east, is the Loch Basin LCT with the broad extent of Loch of Boardhouse providing open views further east to the hills, while to the west is the Bay of Birsay and the open seascape of the North Atlantic beyond.

7.1.6 The main characterising features of this LCU are all associated with the coast, with low rocky headlands, sandy beaches and the higher cliffs of the Brough of Birsay set to the north. The hinterland comprises mainly small fields of improved pasture mostly enclosed by stone dykes and intermittent farmsteads. With practically no tree cover or hedgerows, this is an especially open and exposed landscape. In the north of the LCU there is a concentration of buildings with the historic ruin of the Earl's Palace and other historic and modern buildings. While the A967 and A966 wrap around the east and north of the LCU, roads through the LCU are 'B' class or minor roads. There are no wind farms in this LCU and none within close range.

Sensitivity

7.1.7 The value of the Birsay LCU is medium. National or regional landscape planning designations, which would otherwise denote a special landscape value, do not cover the LCU.

7.1.8 The susceptibility of the Birsay LCU to the effects of the Proposed Development is medium. Those factors which contribute to its susceptibility include the limited influence of operational wind farms on its baseline landscape character and the predominantly rural and small-scale character which exists. Those factors which detract from its susceptibility include the stronger association between this LCU and the seascape to the west, which means there is a weaker association between this LCU and the hinterland to the east, where the site is located. The settled and farmed nature of this LCU also increases the human influences, albeit that they are small in scale and rural in character.

7.1.9 The medium value of the Birsay LCU and its medium susceptibility to the effects of the Proposed Development, means that the overall sensitivity is rated **medium**.

Magnitude of change

6.11.32 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would be almost continuous across this small LCU with the exception of a small patch of no visibility to the north of Mount Misery. This relates to the openness and relatively low-lying landform of this landscape. There would be 4.6 km between the closest proposed turbine and closest boundary of the LCU and all four turbines would be seen to the east, albeit partially concealed by the intervening Kirbuster Hill (102 m AOD).

6.11.33 The magnitude of change on this LCU would be **medium**. Although the principal association of this LCU is with the coast and sea to the west, the introduction of four large and dynamic structures in the hills to the east would form a prominent influence on landscape character in terms of the local setting to this LCU. As visibility of Burgar Hill Wind Farm is limited from this LCU, the addition of the Proposed Development would be seen as a notable change in this predominantly rural area, although small single turbines are a readily visible feature. The effect would be moderated to some extent by the location of the four proposed turbines behind the intervening landform of Kirbuster Hill (102 m AOD) which would mean that they would not be seen to their full extents and seen compared in terms of scale with closer range landform. See Figure 6.5: Hub height ZTV which shows reduced visibility below hub height.

Significance of effect

6.11.34 The effect of the Proposed Development on the landscape character of this LCU would be **moderate** and **significant**.

306 Coastal Hills and Heath LCT: 306A North Coast LCU

Baseline

6.11.35 The Coastal Hills and Heath LCT occurs around the west and north coasts of West Mainland, Rousay and Westray and is characterised by the low hills and undulating landform which are met along the coastal edge by steep cliffs. While the height of the landform varies, high points occur at the summits of the coastal hills with enclosing landform occurring around the lower-lying bays and coastal basins. While the LCT name refers to heaths, there are very few areas of heath remaining in the LCUs of this type, with landcover comprising mainly improved pasture and rough grazing associated with livestock grazing. Settlement and roads are typically sparse in this LCT, especially where coastal hills occur.

6.11.36 The North Coast LCU of this type occupies the north coast of West Mainland, extending from Costa Hill (151 m AOD) in the east, to Birsay in the west. The LCU covers the cliffs of the north coast which extend to heights of over 100 m in parts and include deep geos, caves and skerries. The hinterland comprises coastal hills and undulating landform, with the high point formed by Costa Head in the north-east corner. The boundary of the LCU forms spurs inland to cover Vinquin Hill,

Hundland Hill (106 m AOD) and Kirbuster Hill (102 m AOD) which are separated by the Loch Basin LCT associated with Loch of Swannay, Loch of Hundland and Loch of Boardhouse.

6.11.37 The A966 extends through this LCU, following an east to west orientation parallel to the northern coastline. This provides access to farmsteads and other rural properties located intermittently along the road or offset via access tracks. The land is farmed and characterised by enclosed fields of improved pasture, with patches of rough grazing and heath occurring only on the coastal hills. There is a small number of small-scale single turbines in this LCU and some visibility of Burgar Hill Wind Farm to the south-east from parts of this LCU, with the influence greatest on the closest parts of the LCU at Vinquin Hill and Hundland Hill.

6.11.38 This LCU is represented by Viewpoint 2: A966, Hundland Road junction, Viewpoint 3: Vinquin Hill, Costa, Viewpoint 6: Brough of Birsay, and Viewpoint 16: A966, west of Abune-the-Hill. Westside, Rousay as shown in **Figures 6.20, 6.21, 6.24** and **6.34** respectively.

Sensitivity

6.11.39 The value of the North Coast LCU is medium. National or regional landscape planning designations, which would otherwise denote a special landscape value, do not cover the LCU.

6.11.40 The susceptibility of the North Coast LCU to the effects of the Proposed Development is medium-high. Those factors which contribute to its susceptibility include the location of the Proposed Development partly within this LCU and the predominantly rural and small-scale character which exists, albeit with some fairly close-range influence from Burgar Hill Wind Farm and single turbines. Those factors which detract from its susceptibility include the stronger association between this LCU and the coast and sea to the north, which means there is a weaker association between this LCU and the hinterland to the south, where the site is located. The settled and farmed nature of this LCU also increases the human influences, albeit that they are small in scale and rural in character.

6.11.41 The medium value of the North Coast LCU and its medium-high susceptibility to the effects of the Proposed Development, means that the overall sensitivity is rated **medium-high**.

Magnitude of change

6.11.42 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would be almost continuous across this North Coast LCU with the exception of small patches of no or low-level visibility across the north-east slopes of Costa Hill and to the north-west of the chambered cairns between Queena and Hillquoy. This relates to the proximity of this LCU to the Proposed Development, which will be partly located within it, and the openness of the coastal landscape. The ZTV shows that all four turbines would be visible, although owing to the occurrence of coastal hills, it is likely that the extent to which these turbines would be visible would vary.

6.11.43 The magnitude of change on this LCU would be **high**. The location of the Proposed Development partly within the LCU means that there will be direct effects and close-range indirect effects across the extent of this LCU with the furthest boundary at approximately 5 km. While there is a baseline influence from Burgar Hill Wind Farm, at a minimum of 2.1 km from the southern boundary of the LCU, and also from single turbines in this and surrounding LCUs, the larger size of the proposed turbines would present a notable contrast with the scale of Hundland Hill upon which they would sit, and appear at variance with the small-scale and rural character of this farmed and settled coastal LCU. The movement of the blades would also present a dynamic feature in an otherwise relatively static landscape. While there are small patches in the north-west and north-east where there would be no visibility, the overall magnitude of change would be high.

Significance of effect

6.11.44 The effect of the Proposed Development on the landscape character of this LCU would be **major** and **significant**.

306 Coastal Hills and Heath LCT: 306B Ravie Hill LCU

Baseline

6.11.45 The general characteristics of the Ravie Hill LCU is covered by the description of the Coastal Hills and Heath LCT presented above. The Ravie Hill LCU lies to the south of the Birsay LCU of the Enclosed Bays LCT and the north of the Coastal Basin LCT. It extends from Marwick Head on the coastal edge to the west to Ravie Hill to the east, with the Loch Basin LCT wrapping around the north, east and south of this hill. The cliffs of Marwick Head are set at a height of around 80 m, from where the landform slopes east towards the Coastal Basin LCT. The cliffs to the north are defined as Cliffs LCT and extend north to Birsay Bay. To the east, Ravie Hill forms a long and level ridgeline with a strong north-west to south-east orientation, with a steep north-east facing slope down to the Loch Basin LCT of the Loch of Boardhouse and gentler south-west facing slope to The Loons and Loch of Isbister.

6.11.46 Farmland is the predominant land-use, comprising mostly fields of improved pasture enclosed by stone dykes or post and wire fencing. It covers Ravie Hill and extends up to the cliff edge at Marwick Head. This LCU also contains dispersed settlement in the form of farmsteads and other rural properties. These are accessed by a network of rural roads and access tracks. While there is no settlement along the exposed cliff edge of Marwick Head, there is settlement along the ridgeline of Ravie Hill. There is also a small number of single turbines in this LCU and with Burgar Hill and Hammars Hill wind farms visible from the more elevated parts of this LCU, albeit seen at a minimum of 7.3 km and 11.6 km to the east and south-east respectively.

Sensitivity

6.11.47 The value of the Ravie Hill LCU is medium. National or regional landscape planning designations, which would otherwise denote a special landscape value, do not cover the LCU.

6.11.48 The susceptibility of the Ravie Hill LCU to the effects of the Proposed Development is medium. Those factors which contribute to its susceptibility include the limited influence of operational wind farms on this LCU and the predominantly rural and small-scale character which exists. Those factors which detract from its susceptibility include the stronger association between this LCU and the coast and sea to the west, and the loch basins to the north, east and south, which means there is a weaker association between this LCU and the hills further to the east, where the site is located. The settled and farmed nature of this LCU also increases the human influences, albeit that they are small in scale and rural in character.

6.11.49 The medium value of the Ravie Hill LCU and its medium susceptibility to the effects of the Proposed Development, means that the overall sensitivity is rated **medium**.

Magnitude of change

6.11.50 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would occur across the east-facing slopes of Marwick Head, across the north-east facing slopes of Ravie Hill and the east facing slopes of the northern part of Marwick. Visibility across Ravie Hill would comprise all four turbines while across Marwick Head and Marwick, the number of turbines visible would decrease with reduction in elevation down the slope sides. Large patches of no visibility would also occur on the south-western side of Ravie Hill and western side of Marwick. The closest turbine would lie 3.9 km from the closest edge of the LCU at Ravie Hill and 7.1 km from Marwick Head.

6.11.51 The magnitude of change on this LCU would be **medium-high**. Although the principal association of this LCU is with the coast and sea to the west, the introduction of four large and dynamic structures in the hills to the east would form a prominent influence on landscape character. As Burgar Hill does not form a notable influence on this LCU, the addition of the Proposed Development would be seen as a notable change in this predominantly rural area, although small single turbines are a visible feature in the more local landscapes. The effect would be moderated to some extent by the fact that the four proposed turbines would form a compact group occupying only a small extent of the wider landscape context, although this will be counter-acted by the size of the turbines which will appear at variance with the scale of Hundland Hill on which

they would sit. Across the large patches of no visibility on the south-western side of Ravie Hill and western side of Marwick there would be **no change**.

Significance of effect

6.11.52 The effect of the Proposed Development on the landscape character of this LCU would be **moderate** and **significant** in those localised parts where visibility would arise and with **no effect** across all remaining parts where there would be no visibility.

306 Coastal Hills and Heath LCT: 306C Vestra Fiold LCU

Baseline

6.11.53 The general characteristics of the Vestra Fiold LCU is covered by the description of the Coastal Hills and Heath LCT presented above. The Vestra Fiold LCU is separated from the western coast of West Mainland by the small and narrow Cliffs LCT associated with Outshore Point. It sits between LCUs of the lower-lying Coastal Basin LCT to the north and south and with more extensive West Mainland LCU of the Loch Basin LCT to the east. The LCU covers Vestra Fiold and forms a narrow band extending south to cover Kier Fiold to the north of Loch of Skaill.

6.11.54 Farmland is the predominant land-use, comprising mostly fields of improved pasture enclosed by stone dykes or post and wire fencing. It covers Vestra Fiold and extends up to the Cliffs LCT at Outshore Point. This LCU also contains dispersed settlement in the form of farmsteads and other rural properties. These are accessed by a network of rural roads and access tracks. While there is no settlement across the hill slopes of Vestra Fiold, there is settlement across much of the surrounding rural landscape. There is also a small number of single turbines in this LCU and with Burgar Hill and Hammars Hill wind farms visible from the more elevated parts of this LCU, albeit seen at a minimum of 8.4 km and 11.0 km to the north-east and east respectively.

Sensitivity

6.11.55 The value of the Vestra Fiold LCU is medium. National or regional landscape planning designations, which would otherwise denote a special landscape value, do not cover the LCU.

6.11.56 The susceptibility of the Vestra Fiold LCU to the effects of the Proposed Development is medium. Those factors which contribute to its susceptibility include the limited influence of operational wind farms on this LCU and the predominantly rural character which exists. Those factors which detract from its susceptibility include the stronger association between this LCU and the coast and sea to the west, and the loch basins to the north, east and south, which means there is a weaker association between this LCU and the hills further to the east, where the site is located. The settled and farmed nature of this LCU also increases the human influences, albeit that they are small in scale and rural in character.

6.11.57 The medium value of the Vestra Fiold LCU and its medium susceptibility to the effects of the Proposed Development, means that the overall sensitivity is rated **medium**.

Magnitude of change

6.11.58 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would be almost continuous across the LCU, with the exception of the western part which slopes towards the coast, patches to the north and south of Kier Fiold and a small patch in the north of the LCU. The ZTV shows that all four turbines would be visible from most of the extents where visibility would occur, and the openness and low-lying landform associated with the intervening Loch Basins LCT indicates that the turbines would mostly be seen to their full extents. The closest turbine would lie 6.1 km from the closest edge of the LCU and 9.8 km from Kier Fiold in the south.

6.11.59 The magnitude of change on this LCU would be **medium**. The north and north-east facing slopes of Vestra Fiold would be orientated towards the Proposed Development and this would increase the influence that the large and dynamic turbines would have on the character of this LCU (see **Figure 6.33**). Although Burgar Hill and Hammars Hill have a presence in the wider landscape, their influence is limited by the separation distances of 9.5 km and 12.1 km respectively and the smaller scale of the turbines. This in turn will add to the magnitude of change that the Proposed

Development will introduce as the existing wind farm influences are relatively weak. The effect would be moderated to some extent by the fact that the four proposed turbines would form a compact group occupying only a small extent of the wider landscape context, although this will be counter-acted by the size of the turbines which will appear at variance with the scale of Hundland Hill on which they would sit. Across the patches of no visibility across the western part which slopes towards the coast, patches to the north and south of Kier Fiold and a small patch in the north of the LCU, there would be **no change**.

Significance of effect

6.11.60 The effect of the Proposed Development on the landscape character of this LCU would be **moderate** and **significant** where visibility arises and with **no effect** in remaining parts where there would be no visibility.

306 Coastal Hills and Heath LCT: 306E Rousay LCU

Baseline

6.11.61 The general characteristics of the Rousay Hill LCU is covered by the description of the Coastal Hills and Heath LCT presented above. The Rousay LCU covers the north-west coast of the island, extending from Sinians of Cutclaws in the south to Saviskaill Head in the north. The landform is gently undulating with a general fall from south-east towards the north-west coast and with steeper land occurring around the slopes of Brae of Moan (122 m AOD) which is included in the adjacent Moorland Hills LCT. The north-west coast is defined by a rim of low cliffs, from 5 to 25 m in height, which front the North Atlantic.

6.11.62 There are no roads and only old, abandoned crofts in this LCU. While there are small patches of improved pasture and some old sections of stone dykes, the landcover generally comprises an expanse of rough moorland grasses, used for hill sheep farming. There are no roads and only old, abandoned crofts in this LCU, although rural settlement and roads do occur at Wasbister in the adjacent Moorland Hills LCT. There are also no wind farms or single turbines in this LCU and limited visibility of single turbines in adjacent areas. The limited presence of development presents a relatively remote character.

Sensitivity

6.11.63 The value of the Rousay LCU is medium. National or regional landscape planning designations, which would otherwise denote a special landscape value, do not cover the LCU.

6.11.64 The susceptibility of the Rousay LCU to the effects of the Proposed Development is medium. Those factors which contribute to its susceptibility include the limited influence of operational wind farms and single turbines on this LCU and the predominantly rural and undeveloped character which exists, with the rough moorland presenting a relatively natural looking land cover. Those factors which detract from its susceptibility include the stronger association between this LCU and the coast and sea to the north-west, and the moorland hills to the east, which means there is a weaker association between this LCU and the hills on West Mainland to the south-west, where the site is located.

6.11.65 The medium value of the Rousay LCU and its medium susceptibility to the effects of the Proposed Development, means that the overall sensitivity is rated **medium**.

Magnitude of change

6.11.66 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would be almost continuous across the southern part of the LCU, and no visibility across the northern part of the LCU. The ZTV shows that all four turbines would be visible from the southern part of the LCU, and that visibility would be screened from the northern part by the intervening landform of Brae of Moan (122 m AOD). The four turbines would be seen to the south-west, set beyond the northern section of the Eynhallow Sound and behind the edge of coastal hills (see **Figure 6.35**). The closest turbine would lie 7.3 km from the closest edge of the LCU and 8.8 km from the furthest part where visibility would arise.

6.11.67 The magnitude of change on this LCU would be **medium**. While the principal orientation of this coastal landscape is north-west towards the North Atlantic, the openness of the Eynhallow Sound allows an association which means that West Mainland will also form a contextual influence on landscape character. The four turbines would occur as large and dynamic structures and with very little baseline influence from other wind farms or turbines, these structures would appear at variance with the undeveloped and semi-remote character of this LCU. The effect would be moderated to some extent by the fact that the four proposed turbines would form a compact group occupying only a small extent of the wider landscape context, although this would be counter-acted by the size of the turbines which would appear at variance with the scale of the coastal hills with which they would be associated. In the northern part, where there would be no visibility, there would be **no change**.

Significance of effect

6.11.68 The effect of the Proposed Development on the landscape character of the southern part of this LCU will be **moderate** and **significant,** while there will be **no effect** on the northern part beyond Hellia Spur.

307 Cliffs LCT: 307A Marwick Head LCU

Baseline

6.11.69 The Cliffs LCT is characterised by narrow cliff tops set above dramatic rocky vertical cliffs. The Cliff LCT is found on the west coasts of West Mainland, Hoy, Westray and South Ronaldsay. On West Mainland the Cliffs LCT occurs intermittently between lower-lying areas of Coastal Basin LCT and Enclosed Bay LCT and are backed by Coastal Hills and Heath LCT with the landform typically falling towards the coast. Where farmland has not encroached close to the cliff edge, the cliff tops comprise maritime grasslands and heaths. The cliffs form an abrupt transition from the coastal hills, with heights on West Mainland ranging between 10 m and 70 m and the cliffs containing features of coastal erosion.

6.11.70 The Marwick LCU of the Cliffs LCT covers a short section of the coastal edge and a narrow extent inland, covering the unnamed hill in the south of the LCU and tapering towards the north. The height of the unnamed hill is 81 m AOD, and the adjacent cliffs rise to a height of 70 m, making this southern part of the LCU the most elevated, while to the north, the height of the cliffs gradually falls to 10 m. The cliffs and the adjacent landform are orientated north-west across the North Atlantic, while the site is located in almost the opposite direction to the east.

6.11.71 Human influences in this LCU are limited to remnants of old stone dykes and abandoned crofts. There are no roads and farm tracks only extend to the outer edge of the LCU and not within it. While fields of improved pasture cover the adjacent Coastal Hills and Heath LCT, the land cover across this LCU is predominantly maritime grasslands and heaths which present a less modified appearance. There are no wind farms or single turbines in this LCU and visibility of them in the wider landscape is limited with Burgar Hill and Hammars Hill wind farms located a minimum of 10.1 km and 14.6 km from the closest LCU boundary.

Sensitivity

6.11.72 The value of the Marwick LCU is medium. National or regional landscape planning designations, which would otherwise denote a special landscape value, do not cover the LCU.

6.11.73 The susceptibility of the Marwick LCU to the effects of the Proposed Development is medium. Those factors which contribute to its susceptibility include the limited influence of operational wind farms and single turbines on this LCU and the predominantly rural and undeveloped character which exists, with the maritime grasslands and heaths presenting a relatively natural looking land cover. Those factors which detract from its susceptibility include the stronger association between this LCU and the coast and sea to the west, and the coastal hills to the east, which means there is a weaker association between this LCU and the hills on West Mainland further to the east, where the site is located.

6.11.74 The medium value of the Marwick LCU and its medium susceptibility to the effects of the Proposed Development, means that the overall sensitivity is rated **medium**.

Magnitude of change

6.11.75 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would be almost continuous across this LCU, with the exception of a small patch of no visibility across the northern part of the LCU. The ZTV shows that all four turbines would be visible from most of this LCU, and that visibility would be screened from the northern part by intervening landform. With reference to **Figure 6.5**, the lower parts of the turbines are shown to be screened from parts of the LCU by intervening landform. The four turbines would be seen to the east, set beyond Ravie Hill and Kirbuster Hill, such that the full extents of the structures would not be visible. The closest turbine would lie 6.1 km from the closest edge of the LCU.

6.11.76 The magnitude of change on this LCU would be **medium**. While the principal orientation of this coastal landscape is north-west towards the North Atlantic, the open and exposed nature of the cliff top means that influences on landscape character are drawn from all aspects. The four turbines would occur as large and dynamic structures and with very little baseline influence from other wind farms or turbines, these structures would appear at variance with the undeveloped and semi-remote character of this LCU. The effect would be moderated to some extent by the fact that the four proposed turbines would form a compact group occupying only a small extent of the wider landscape context, that their full extents would be screened by intervening landform and that they would be seen within a landscape where human influences from settlement and farming are widely evident. In the northern tip of the LCU there would be no visibility of the Proposed Development, although the overall magnitude of change on this LCU would be medium.

Significance of effect

6.11.77 The effects of the Proposed Development on the landscape character of this LCU would be **moderate** and **significant**.

309 Peatland Basin LCT: 309A Hillside LCU

Baseline

7.1.10 The Peatland Basin LCT is associated with low-lying areas of land either on the coast or around inland water bodies. The accumulation of deep peat in these low-lying altitudes makes this LCT locally unique. The land is typically very flat with a range between 10 m and 20 m AOD. It is made distinct from the other low-lying farmed landscapes owing to its peatland or wet grassland vegetation which is typically unenclosed and uncultivated. Owing to the instability of the peaty soils, there is very little settlement in this LCT, with development comprising roads occasionally cutting across the basins.

7.1.11 The Hillside LCU covers the course of the Burn of Hillside such that it forms a narrow band of land aligned from south-west to north-east. At the southern end, the valley is broader as it extends west to cover Glims Moss and then narrows to the north where it joins Loch of Hundland. The Hillside LCU is enclosed by the rising landform of the Rolling Hill Fringe LCT to the west and east, which then rises further into the Moorland Hills LCT to the east and south, while the Loch Basins LCT presents a flatter landscape to the north and west.

7.1.12 The relatively low-lying landform and enclosure from hill slopes limits the extent to which this LCU connects with the wider landscape. The principal association is with the Rolling Hill Fringes LCT to the west and east and the Moorland Hills LCT to the south, as these landforms rise above and enclose the Peatland Basin LCT. In contrast, the Loch Basin LCT to the north is flat, creating a more open aspect with the association strengthened by the orientation of the valley in this direction. There is very little development in this LCU and relatively sparse rural development in the wider area. The enclosure of the landform also limits visibility of wind farm developments with Burgar Hill and Hammars Hill wind farms to the east screened by the intervening landform. The landcover in this LCU is distinguished from the surrounding improved pasture owing to the dark colour of the heather and rough grasses.

Sensitivity

7.1.13 The value of this LCU is medium. This LCU is not covered by any national or regional landscape designations which would otherwise denote a special value.

6.11.78 The susceptibility of this LCU to the effects of the Proposed Development is medium. Those factors which contribute to its susceptibility include the limited influence of operational wind farms and single turbines on this LCU and the predominantly rural and undeveloped character which exists, with the heathers and rough grasses presenting a relatively natural looking land cover. Those factors which detract from its susceptibility include the stronger association between this LCU and the hill slopes to the west, east and south, which means there is a weaker association between this LCU and Hundland Hill to the north-east where the site is located, although from the north of the LCU, the openness of the adjacent Loch Basin LCT means that there is a closer association with the enclosing Coastal Hills and Heath :CT forming an influence in the background of the lochs.

7.1.14 The combination of the value of this LCU and its susceptibility to the effects of the Proposed Development results in an overall **medium** sensitivity.

Magnitude of change

6.11.79 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would be continuous across this LCU, with all four turbines visible apart from along most of the eastern boundary where the screening effect of the intervening landform would reduce this to two or three turbines. Apart from at the northern extent of the LCU, where the four turbines would be seen to practically their full extents, from the remaining parts, the turbines would be seen partly screened by intervening landform. The closest turbine would lie 1.9 km from the closest edge of the LCU and 5.1 km from the furthest part where visibility would arise.

6.11.80 The magnitude of change on this LCU would be **medium-high**. Despite the enclosure formed by the rising landform around this low-lying LCU, its close proximity to the Proposed Development would mean that the proposed turbines would appear as large and dynamic structures, in a part of channelled views to the north, even though they would not be seen to their full extents from most of the LCU. The limited visibility of other wind farms and single turbines from this LCU would add to the magnitude of change as the Proposed Development would be seen at variance to the predominantly rural landscape. The effect would be moderated to some extent by the fact that the four proposed turbines would form a compact group occupying only a small extent of the wider landscape context, although this will be counter-acted by the size of the turbines which would appear at variance with the scale of Hundland Hill on which they would sit.

Significance of effect

6.11.81 The effect of the Proposed Development on the landscape character of this LCU would be **moderate** and **significant**.

309 Peatland Basin LCT: 309C Rousay LCU

Baseline

6.11.82 The Rousay LCU covers a long, narrow, low-lying area at the core of the island of Rousay, and which coincides with the Muckle Water and the Suson Burn which flows from it towards Rousay Sound in the north-east. The predominant LCT on the island is the Moorland Hills LCT which wraps around the north, west and south of the Peatland Basin LCT, while to the north-east lies an area of Coastal Basin LCT. The Rousay LCU is largely enclosed by the rising landform of the Moorland Hills LCT, and this limits its association with the wider landscape context, apart from where the landscape opens out to the south-west allowing an influence from the north-west part of West Mainland and where it opens out to the north-east towards the adjacent coastal basin.

6.11.83 The landcover comprises heather and rough grasses and enclosure from stone dykes and post and wire fencing is limited. While there is evidence of historic peat extraction in the form of linear furrows, the landcover appears continuous. Built development in this LCU is limited to dispersed rural farmsteads and properties along the northern edge and tracks extending into the core of the

area. The surrounding Moorland Hills LCT also contain very little development other than the Kingarley turbine in the east. The enclosure of the landform limits visibility of wind farm developments with Burgar Hill and Hammars Hill wind farms to the south-west screened by the intervening landform.

Sensitivity

6.11.84 The value of this LCU is medium. This LCU is not covered by any national or regional landscape designations which would otherwise denote a special value.

6.11.85 The susceptibility of this LCU to the effects of the Proposed Development is medium. Those factors which contribute to its susceptibility include the limited influence of operational wind farms and single turbines on this LCU and the predominantly rural and undeveloped character which exists, with the heathers and rough grasses presenting a relatively natural looking land cover. Those factors which detract from its susceptibility include the stronger association between this LCU and the enclosing hill slopes to the north and south, which means there is a weaker association between this LCU and Hundland Hill to the south-west where the site is located, although from the central south part of the LCU, the openness of the landform means that there is a closer association with the West Mainland Coastal Hills and Heath LCT forming an influence in the background of this peat basin.

6.11.86 The combination of the value of this LCU and its susceptibility to the effects of the Proposed Development results in an overall **medium** sensitivity.

Magnitude of change

6.11.87 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would be limited to one main patch in the central southern part of this LCU, coinciding with the relatively flat land on the southern side of Suso Burn. An opening, in the otherwise enclosing landform, occurs to the south-west where the Proposed Development would be located, and this allows the influence of the four turbines to extend across this localised part of the Peatland Basin LCT. There would be no visibility across the remaining parts of the LCU. The closest turbine would lie 8.4 km from the closest edge of the LCU.

6.11.88 The magnitude of change on this LCU would be **medium-low**. This finding relates to a combination of factors including the limited extent to which the Proposed Development would be visible from this LCU, such that the majority of the LCU would remain unaffected, the stronger influence from the immediate surrounding and enclosing hill slopes, and the indirect and detached nature of the influence, located more than 8 km from the LCU on a separate island. Where visibility would arise, the four turbines would be seen as large-scale and dynamic structures, at variance with the scale of the coastal hills on which they would be seen. Furthermore, they would be seen in a context where the baseline influences from other wind farms would be limited, and this would accentuate the change that the proposed turbines would introduce.

Significance of effect

6.11.89 The effect of the Proposed Development on the landscape character of this LCU would be **moderate/minor** and **not significant**.

310 Loch Basin LCT: 310A Swannay LCU

Baseline

6.11.90 The Loch Basin LCT is characterised by broad shallow depressions containing large fresh water and tidal lochs. They are found most extensively on West Mainland and comprise large water bodies, often with shallow banks and sloping pastures, hill slopes and ridgelines enclosing them. The openness of the water gives rise to long views often from one basin to another and enclosed by prominent skylines formed by enclosing hills. The loch sides are typically farmed although some areas of wetlands, mudflats, mires, marshes, scrub and low peatland also occur.

6.11.91 The Swannay LCU is relatively small, covering the Loch of Swannay and the surrounding loch banks, albeit especially narrow on the eastern side. It also extends south-east to include the

smaller loch known as Peerie Water. The Swannay LCU is well enclosed by surrounding hills, with the Coastal Hills and Heath LCT wrapping around the western, northern and eastern sides and the Moorland Hills LCT extending across the southern side. Costa Hill forms a high point at 151 m AOD to the north-east, while Hundland Hill (106 m AOD) sits to the south-west with the middle to lower slopes included in the Swannay LCU.

6.11.92 While the majority of this LCU comprises water, the surrounding landform is in agricultural use with improved pasture extending up to the shoreline around much of the loch. To the south-west and south, however, the landcover comprises heathers and rough moorland grasses to present a less modified appearance. Farmsteads and other rural properties form a dispersed pattern of settlement around the loch with access roads drawn off minor roads, a number of which terminate at the loch side. In the north-east, the A966 skirts around the edge of the loch and this reduces the sense of tranquillity found around other parts of the loch. Burgar Hill Wind Farm occupies the coastal hill to the immediate south-east of this LCU, such that it forms an existing influence across much of this LCU. This LCU is represented by Viewpoint 1: A966, Loch of Swannay as shown in **Figure 6.19**.

Sensitivity

6.11.93 The value of the Swannay LCU is medium. This LCU is not covered by any national or regional landscape designations which would otherwise denote a special value.

6.11.94 The susceptibility of this LCU to the effects of the Proposed Development is medium-high. Those factors which contribute to its susceptibility include the fact that the Proposed Development would be partly located in this LCU and, therefore would give rise to direct and close-range indirect effects. Those factors which detract from its susceptibility include the existing presence of Burgar Hill Wind Farm which sits next to the south-east boundary of this LCU, and which makes wind farm development an established influence on the character of this LCU.

6.11.95 The combination of the medium value of this LCU and its medium-high susceptibility to the effects of the Proposed Development results in an overall **medium-high** sensitivity.

Magnitude of change

6.11.96 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would be continuous across the whole LCU and that all four turbines would be visible from these extents. It is also likely that the four turbines would be seen to almost their full extents owing to the openness of views across the loch, although there may be some partial screening from the slopes of Hundland Hill, on which they would sit. The proposed turbines would occur as large scale and dynamic structures

6.11.97 The magnitude of change on this LCU would be high. This finding relates to the location of the turbines in this LCU, the contrast they would present in respect of the scale of Hundland Hill on which they would sit and the predominantly rural character of the LCU. Despite there being a baseline influence from nearby Burgar Hill Wind Farm, the location of the Proposed Development in this LCU, combined with the larger size of the turbines, means that the Proposed Development will become the defining influence in terms of landscape character.

Significance of effect

6.11.98 The effect of the Proposed Development on the landscape character of this LCU would be **major** and **significant**.

310 Loch Basin LCT: 310B West Mainland LCU

Baseline

6.11.99 The West Mainland LCU of the Loch Basin LCT forms one of the largest LCUs on West Mainland, covering a substantial part of the western half of West Mainland. It extends from Loch of Boardhouse and Loch of Hundland in the north, to Loch of Harray and Loch of Stenness in the south. While there are no large lochs in the middle part of the LCU, there are a number of small lochs including Loch of Isbister and Loch Sabiston which sit amidst a relatively level plain. The West Mainland LCU is enclosed by Coastal Hills and Heath LCT along the western boundary and Rolling

Hill Fringes along the eastern boundary, with the Moorland Hills LCT stepping the landform up higher in this direction. The loch sides are characterised by level or inclined banks, which are either enclosed by surrounding hills or which open up into a broader extent of gently undulating landform.

6.11.100 The predominant land-use across this LCU is farmland, with most of the fields used for improved pasture, albeit also with some crop growing in places. The relatively level landform means that this LCU is well settled as well as cultivated, and a network of roads provides access to a number of small, nucleated settlements as well as more dispersed farmsteads and other rural properties. While there are no wind farms in this LCU, there is a number of single turbines and the Hammars Hill and Burgar Hill wind farms intermittently visible in the Moorland Hills LCT further to the east.

6.11.101 This LCU is represented by Viewpoint 5: Kirbuster, Loch of Hundland, Viewpoint 7: A967, Birsay Community Hall, Viewpoint 8: A967, Twatt, Viewpoint 9: A967 near Rosemire, Viewpoint 10: A967 near Queena and Viewpoint 11: Ring of Brodgar as shown in **Figures 6.23, 6.25, 6.26, 6.27, 6.28** and **6.29** respectively.

Sensitivity

6.11.102 The value of the West Mainland LCU is medium. This LCU is not covered by any national or regional landscape designations which would otherwise denote a special value.

6.11.103 The susceptibility of this LCU to the effects of the Proposed Development is medium-high. The presence of the large-scale lochs and relatively low-lying landform creates an open and exposed landscape in which surrounding hills form prominent skylines. The location of the Proposed Development on an enclosing skyline to this LCU, therefore, increases the susceptibility. Furthermore, the limited influence of the operational wind farms on this LCU, will mean that the Proposed Development has greater potential to make a notable change. The susceptibility of the LCU is, however, moderated by the extent of human influences across this settled and farmed landscape, albeit all relatively small in scale and rural in character.

6.11.104 The combination of the medium value of this LCU and its medium-high susceptibility to the effects of the Proposed Development results in an overall **medium-high** sensitivity.

Magnitude of change

6.11.105 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would be continuous across large parts of the LCU and that all four turbines would be visible from most of these extents. In the northern part of the LCU, visibility would be almost continuous with the exception of a patch to the south-west of Ravie Hill where there would be n visibility and then lower levels of visibility. In the central part of the LCU there would be larger patch of no visibility to the south of Greeny Hill (152 m AOD), again with lower levels of visibility radiating out from this. In the southern part of the LCU there would be intermittent patches of no visibility, typically associated with areas of lower-lying land set in alignment with intervening landform.

6.11.106 The magnitude of change on this LCU would vary depending largely on distance from the Proposed Development as well as other factors as set out below. In the northern part of the LCU, the magnitude of change would be **high** around Loch of Hundland which is located adjacent to the Proposed Development and from where the four turbines would occur as large scale and dynamic structures, appearing at variance with the scale and character of Hundland Hill on which they would sit. Around Loch of Boardhouse, the magnitude of change would be **medium-high**, as the proposed turbines would still form a notable influence on landscape character, albeit with some localised screening from Kirbuster Hill and a reduction in the extents of the turbines visible. Across the central parts of the LCU the Proposed Development would continue to form a notable feature in the characterisation of this LCU owing to the large scale of the turbines relative to the scale of the landform, even though a large patch of no and lower-level visibility would be formed to the south of Greeny Hill. In this central part, out to approximately 7 km from the Proposed Development, the magnitude of change would reduce to **medium**. Beyond 7 km the magnitude of change would drop to **medium-low** owing to a combination of the turbines being seen at a slightly longer range, the closer range hills forming partial screening and a more favourable scale comparison, and the fact that the four turbines would occupy only a small proportion of a much

wider landscape context in which human influences are fairly extensive. This medium-low magnitude of change would extend across the southern part of the LCU, from where the ZTV shows theoretical visibility to be patchy and where visibility does occur, it is likely that the extents of the proposed turbines would be fairly well screened by intervening landform as seen from this low-lying area. Where there would be no visibility, there would be **no change**.

Significance of effect

6.11.107 The effect of the Proposed Development on this LCU would be **major**, **major/moderate** or **moderate** and **significant** across northern and central parts out to a radius of approximately 7 km from the Proposed Development and then **moderate** and **not significant** or with **no effect** across all remaining parts.

313 Rolling Hill Fringe LCT: 313A Hillside LCU

Baseline

7.1.15 The Rolling Hill Fringe LCT forms a transitional landscape typically between the higher Moorland Hills LCT and other lower-lying landscapes such as the Loch Basins LCT, Peatland Basin LCT or Inclined Coastal Pastures LCT. It is characterised by rolling landform, typically in the range of 20 to 150 m with occasional steep slopes in places. The land use is predominantly farmland with improved pasture and arable crops, set in fenced fields occupying the lower slopes and semi-improved and rough pasture set in fenced or drystone dyke enclosures on the middle slopes. This landscape transitions into the unenclosed moorland of the Moorland Hills LCT across the upper slopes and hill tops. In terms of roads and settlement, these are typically more evident across the lower slopes and less evident across the middle and upper slopes.

7.1.16 The Hillside LCU is a small LCU covering the south-western flank of Skelday Hill (155 m AOD) and which forms the transition between the low-lying Peatland Basin LCT associated with Hillside Burn to the east, and the more elevated Moorland Hills LCT which wraps around to the north, east and south. Areas of the Loch Basin LCT and Coastal Hills and Heath LCT occur at just over 1 km to the north, and this is where the Proposed Development would be located. In terms of existing landscape character, this is largely defined by the sloping landform and agricultural land uses, with also some influence from small scale and rural settlements and roads on the lower slopes. While there are not turbines in this LCU, there is an influence from Burgar Hill wind farm in the Moorland Hills LCT at 2.7 km to the east and Hammars Hill wind farm at 5.2 km to the south-east.

Sensitivity

7.1.17 The value of this LCU is medium. This LCU is not covered by any national or regional landscape designations which would otherwise denote a special value.

7.1.18 The susceptibility of this LCU to the effects of the Proposed Development is medium. The susceptibility of this LCU relates to the relatively small scale of the landscape and its rural character, in respect of which the Proposed Development would appear at variance. There is a strong association between the site and the northern part of the LCU which forms the southern edge of the open landscape to Hundland Hill where the Proposed Development would sit. The susceptibility is, however, moderated by the human influences of the settlement and roads in parts of this LCU and the wind farms in the Moorland Hills LCT to the east and south-east, which establish wind farm development as part of the baseline character.

7.1.19 The combination of the medium value of this LCU and its medium susceptibility to the effects of the Proposed Development results in an overall **medium** sensitivity.

Magnitude of change

6.11.108 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would occur as a patch in the north and a patch in the south, with no visibility in the central part. The patch in the north would comprise all four turbines and at a minimum of 1.3 km, they would be seen as especially large and dynamic structures. The patch in the south would comprise one or two turbines, likely to

be seen as tips or blades with the rest of the Proposed Development screened by the intervening landform of Skelday Hill. The closest turbine would lie 3.6 km from this southern patch of visibility.

6.11.109 The magnitude of change on this LCU would be **high** across the patch that occurs in the north, **medium-low** across the patch that occurs in the south and with **no change** in the central part. The close proximity of the four turbines to the northern part of this LCU means that they will have a notable influence on landscape character, despite existing influences from wind farms and other human influences occurring in the surrounding LCTs. In the southern part, the influence would be moderated by the screening effect of the intervening landform, which will markedly reduce the extent to which one or two of the turbines would be visible. Furthermore, the orientation of this southern part of the LCU means that it has a closer association with the open Peatland Basin to the south-west and south, which are in the opposite direction to the Proposed Development.

Significance of effect

6.11.110 The effect of the Proposed Development on this small LCU will be **major / moderate** and **significant** in the northern part out to approximately 4 km, **moderate / minor** and **not significant** in the southern part and with **no change** in the central part.

313 Rolling Hill Fringe LCT: 313B West Mainland LCU

Baseline

6.11.111 The West Mainland LCU of the Rolling Hill Fringe LCT forms a long LCU, running broadly north to south through West Mainland, with the lower-lying Loch Basin LCT to the north and west, and the more elevated Moorland Hills LCT to the east and south. The landform comprises small hills, hill slopes and lower-lying valleys separating the uplands, albeit with a general fall in elevation from east to west, reflecting the transition from the Moorland Hills LCT to the east and the Loch Basins LCT to the west. The land use is predominantly agricultural, with mostly improved pasture but also some arable across the lower land and slopes and semi-improved transitioning to rough moorland from the middle to upper slopes.

6.11.112 The northern part of this LCU is centred on Greeny Hill (152 m AOD) to the immediate south of Loch of Hundland. To the south of this, there is flatter land to the west of Dounby and then the gentle south-western flank of Kame of Corrigaill (176 m AOD). To the west and south of the Loch of Harray, there is a broad extent of low-lying land which forms a more abrupt transition into the adjacent Moorland Hills LCT to the east and south. This LCU covers a length of approximately 16 km from north to south. Although large parts of this LCU are undeveloped, there is an influence from development in the lower parts of the LCU, with nucleated settlements occurring and a network of roads providing access to more rural farms and properties. Domestic turbines occur intermittently across this LCU and there is also the influence from Burgar Hill and Hammars Hill wind farms at a minimum of 3.5 km and 4.8 km respectively. This LCU is represented by Viewpoint 13: B9057 north-east of Dounby, as shown in **Figure 6.19**.

Sensitivity

6.11.113 The value of this LCU is medium. This LCU is not covered by any national or regional landscape designations which would otherwise denote a special value.

6.11.114 The susceptibility of this LCU to the effects of the Proposed Development is medium. The susceptibility of this LCU relates to the relatively small scale of the landscape and its rural character, in respect of which the Proposed Development would appear at variance. There is a strong association between the site and the northern part of the LCU which forms the southern edge of the open landscape to Hundland Hill where the Proposed Development would sit. The susceptibility is, however, moderated by the human influences of the settlement, roads and domestic turbines which occur intermittently across this LCU, and the wind farms in the Moorland Hills LCT to the east and south-east, which establish wind farm development as part of the baseline character.

6.11.115 The combination of the medium value of this LCU and its medium susceptibility to the effects of the Proposed Development results in an overall **medium** sensitivity.

Magnitude of change

6.11.116 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would occur intermittently as patches along its length. The closest patch would occur across the north facing slopes of Greeny Hill (152 m AOD) in the northern part of the LCU. Here the magnitude of change on landscape character would be **high** as the four large and dynamic turbines would appear at variance with this predominantly rural landscape, despite some human influences from small scale rural development, agricultural practices and Burgar Hill Wind Farm at a minimum of 3.5 km to the east. There would be no visibility across the south-facing slopes of Greeny Hill, although the high magnitude of change would extend along the eastern side of the hill. Visibility would resume across the lower-lying land to the east of Dounby, at a minimum of 4.1 km and with all the turbines visible to the north, albeit with some screening by intervening Greeny Hill and Skelday Hill. Here, the magnitude of change would be **medium-high** to **medium** as the large scale of the proposed turbines would still be apparent and appear at variance with the small scale of Hundland Hill with which they would be associated. As well as the small scale of this settled and cultivated landscape upon which they would have a notable influence.

6.11.117 Between approximately 7 km and 10 km there would be practically no visibility owing to the screening effect of Kame of Corrigaill and the low-lying landform in this area, although there would be some small patches of full visibility and larger patches of low-level visibility across the western side of the LCU to the west of the Loch of Harray from approximately 8.5 km to 10 km. Here the magnitude of change would be **medium-low** for the following reasons. Firstly, the four turbines would occur beyond the hills to the north, such that they would not be seen to their full extents. Secondly, they would be seen in the context of closer range domestic turbines and wind farms which would moderate their influence. Thirdly, a stronger influence would come from the closer range landscapes of the Loch Basins LCT to the west and the Moorland Hills LCT to the east and these would continue to define this part of the LCU.

6.11.118 Almost continuous visibility would extend south from approximately 10 km to 16.5 km, albeit with small patches of no visibility and margins of lower-level visibility also occurring. This part of the LCU comprises the lower-lying and gently undulating land to the east and south of Loch of Harray. The magnitude of change would range between **medium-low** and **low** owing to the separation distance from the Proposed Development which would mean that the four turbines would occupy only a very small proportion of the wider landscape and the screening effect of the intervening hills, as illustrated by the hub height ZTV in **Figure 6.5**, which would ensure that the turbines would not be seen to their full heights. Furthermore, there is also the greater influence from the closer range landscapes that would continue to characterise this southern part of the LCU.

Significance of effect

6.11.119 The effect of the Proposed Development on this LCU will be **major / moderate** or **moderate** and **significant** in the northern part out to approximately 7 km, and then **moderate / minor** and **not significant** in other parts where there is visibility and with **no effect** where there is no visibility.

314 Moorland Hills LCT: 314A West Mainland LCU

Baseline

7.1.20 The Moorland Hills LCT comprises the highest uplands of Orkney and occurs across Hoy, Rousay and Eday as well as the Mainland of Orkney, with heights ranging from 50 m to 480 m. These upland landscapes are made distinct on account, not only of their more elevated and steep sloping landform, but also the presence of open moorland landcover, the darker hues of which contrast notably with the brighter hues of the enclosed, improved and semi-improved pasture across the middle and lower levels. Furthermore, they are often seen in the context of relatively flat, loch basin, coastal and island landscapes which further accentuates their presence.

7.1.21 The West Mainland LCU of this LCT covers a substantial part of the eastern half of West Mainland. It extends from the northern hills of Mid Hill (193 m AOD) and Burgar Hill (159 m AOD), the northern slopes of which abut the southern boundaries of the Coastal Hills and Heath LCT and Loch Basins LCT, where the Proposed Development would be located. The centre of the LCU

broadens out to include Kame of Corrigaill (176 m AOD) in the west and Hammars Hill (164 m AOD) in the east. Towards the south, the LCU forms a north to south ridgeline between Burrien Hill (202 m AOD) and Cuiffie Hill (145 m AOD) from which the slopes form a strong west and east orientation.

7.1.22 This LCU is characterised by the combination of the upland landform and the open moorland land cover. While the hills do not rise much above 200 m, their presence in the wider landscape is accentuated by the lower lying loch basins to the west and coastal landscapes to the east. Furthermore, the dark hues of the moorland vegetation contrast with the brighter greens of the improved pasture, although some of these more modified fields encroach around the edges of this LCU. Settlement and roads are contained in the landscapes surrounding the LCU, with the exception of the minor road that cross the hills east to west from Settiscarth and its associated rural farms and other properties. Hammars hill and Burgar Hill wind farms are both located in this LCU and there are also masts on Burgar Hill and Fibla Fiold. The elevation of this upland LCU means that its association with the wider landscape reaches further than the lowland LCUs, with views extending out to the surrounding islands of Gairsay, Shapinsay, Rousay, Wyre and Egilsay. This LCU is represented by Viewpoint 4: Mid Hill as shown in **Figure 6.22**.

Sensitivity

7.1.23 The value of this LCU is medium. This LCU is not covered by any national or regional landscape designations which would otherwise denote a special value.

7.1.24 The susceptibility of this LCU to the effects of the Proposed Development is medium. Those factors which contribute to the susceptibility of this LCU include the predominantly rural character of the landscape and the largely unmodified character of the open moorland landcover. Those factors which reduce the susceptibility of this LCU include the presence of two wind farms in this landscape and the extent to which settlement and modified farmland in surrounding LCUs also has an influence.

7.1.25 The combination of the medium value of this LCU and its medium susceptibility to the effects of the Proposed Development results in an overall **medium** sensitivity.

Magnitude of change

6.11.120 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would occur intermittently as patches across its extents. The closest patch would occur across the north facing slopes of Skelday Hill (155 m AOD), Mid Hill (193 m AOD) and Burgar Hill (159 m AOD) in the northern part of the LCU. Here, the magnitude of change on landscape character would be **medium-high** as the four large and dynamic turbines would be located a minimum of 300 m from the closest edge and 3.5 km from the summit of Mid Hill, making them especially close range and prominent. While there is an existing influence from Burgar Hill Wind Farm in this LCU, the larger size of the proposed turbines will ensure that they have a more notable influence on the landscape character of this LCU, apart from across Burgar Hill where the existing turbines will moderate the effect of the proposed turbines and the magnitude of change would be **low**.

6.11.121 There is no visibility from the south-facing slopes of Skelday Hill, Mid Hill and Burgar Hill which face away from the Proposed Development, although patches occur between, at a minimum of 3.5 km to 4.5 km and here, the magnitude of change would be **medium** owing to the closer range influence from Burgar Hill and the influence from the intervening hills. Where visibility resumes, across the north-facing slopes of Starra Fiold, Hill of Huntis and Kame of Corrigall, at a minimum of 4.5 km to 6.8 km, the magnitude of change will also be **medium**. While the Proposed Development will be seen in the context of Burgar Hill Wind Farm to the north-east and Hammars Hill Wind Farm to the east, the four proposed turbines will still have a notable influence on landscape character owing to their larger size and the contrasts these large and dynamic structures would present in respect of the relatively small scale of the coastal hills on which they would sit.

6.11.122 While visibility extends east from Kame of Corrigall, across the north-facing slopes of Mid Tooin (221 m AOD), the closer range influence from Hammars Hill Wind Farm would moderate the magnitude of change that the Proposed Development would have on the landscape character of this part of the LCU, such that it would be rated **medium-low** and **low** across Hammars Hill. These

hills would then screen visibility from much of the remainder of the LCU further to the south, and while patches of visibility would occur the combination of the increased separation distance, the greater influence from closer range Hammars Hill and closer association with the Loch of Harray to the west and Wide Firth to the east, would ensure a **low** magnitude of change.

Significance of effect

6.11.123 The effect of the Proposed Development on this LCU will be **major / moderate** and **significant** in the northern part out to approximately 7 km, and then **moderate / minor** and **not significant** in other parts where there is visibility and with **no effect** where there is no visibility.

314 Moorland Hills LCT: 314D Rousay LCU

Baseline

6.11.124 The Rousay LCU of the Moorland Hills LCT covers most of the island, with these elevated uplands forming the core, with the exception of a band of Peatland Basin LCT which cuts broadly west to east through the middle. The Moorland Hills LCT are bordered by the Inclined Coastal Pasture LCT around the southern coast of the island, the Coastal Hills and Heath LCT to the north-west and the Coastal Basin LCT to the north-east. This LCU is typical to its type in that it comprises small to medium sized hills with steep slopes and open moorland land cover. Kierfea Hill (235 m AOD) is the steepest hill, occupying the north-east of the LCU. The southern ridgeline is formed by Blotchnie Fiols (250 m AOD) in the west and Knitchen Hill (227 m AOD) in the east, while the south-western ridgeline is formed by Ward Hill (198 m AOD) in the north-west and Swarta Fiold (141 m AOD) in the south-east. The distinctive feature on Rousay is the presence of low-lying Peatland Basin LCT which forms a hollow in the centre and around which the Moorland Hills LCT wraps.

6.11.125 Open moorland is the predominant landcover and is used for hill sheep farming, with fields of semi-improved and improved pasture occurring around the periphery. Settlement and roads on the island are mostly concentrated in the coastal landscapes although with some encroachment also into the peripheral parts of the Moorland Hills LCT. There is a single turbine in this LCU at Kingarly and a number of domestic turbines in the Inclined Coastal Pasture LCT along the southern coastal edge. Burgar Hill Wind Farm occurs on West Mainland at a minimum of 7.8 km to the south-west and Hammars Hill Wind Farm at a minimum of 6.1 km, presenting a baseline influence associated with the Mainland of Orkney.

Sensitivity

6.11.126 The value of the Rousay LCU is medium. National or regional landscape planning designations, which would otherwise denote a special landscape value, do not cover the LCU.

6.11.127 The susceptibility of the Rousay LCU to the effects of the Proposed Development is medium. Those factors which contribute to its susceptibility include the limited influence of operational wind farms and domestic turbines on this LCU and the predominantly rural and undeveloped character which exists, with the rough moorland presenting a relatively natural looking land cover. Those factors which detract from its susceptibility include the strength of influence that is derived from the landscapes on the island of Rousay, which in contrast present the wider landscape as more of a background context, and the broad range of seascapes and landscapes that have an influence on this Moorland Hills LCT, with the Coastal Hills and Heath LCT, where the Proposed Development would be located, forming only a small and unremarkable part of the wider context.

6.11.128 The medium value of the Rousay LCU and its medium susceptibility to the effects of the Proposed Development, means that the overall sensitivity is rated **medium**.

Magnitude of change

6.11.129 The ZTV in **Figure 6.6** shows that visibility of the Proposed Development would occur across large patches across the south-western half of the LCU and with no visibility across the north-eastern half of the LCU, with the exception of small, localised patches on the summits of Kierfea Hill and Cuppers of Vacquoy. Visibility would extend across the south-west facing slopes of Ward Hill and

Swarta Fiold from a minimum of 7.5 km. While the general orientation of these hillsides towards the Proposed Development, would accentuate the influence of the proposed turbines, they would be seen in a sector of the view where there is already an influence from the operational wind farms of Burgar Hill and Hammars Hill. Furthermore, the four proposed turbines would occupy only a limited horizontal extent amidst the wider landscape and seascape context experienced from these elevated parts of Rousay. Taking these factors into account, along with the larger size of the proposed turbines and the predominantly rural character of Rousay, albeit with a number of closer range single turbines on the island, the magnitude of change would be **medium**.

6.11.130 The magnitude of change across Braes of Moan, Blotchnie Fiold and Twelve Hours Tower would be **medium-low**. This lower rating relates to the greater separation distances of over 8 and 9 km, the orientation of these slopes to the south, rather than the south-west, their closer proximity to operational turbines on Rousay and the small proportion of the much wider landscape and seascape context which the four turbines will occupy, despite their apparent large size.

Significance of effect

6.11.131 The effect of the Proposed Development on the landscape character of the south-western slopes of Ward Hill and Swarta Fiold, out to approximately 7 km would be **moderate** and **not significant**, while the effect on other parts where visibility arises would be **moderate / minor** and **not significant** and with **no effect** where no visibility would occur.

Assessment of Effects on Coastal Character

Introduction

6.11.132 In addition to the assessment of effects on landscape character, this LVIA also includes the assessment of effects on coastal character. This makes reference to Orkney and Caithness Coastal Character Assessment, which has been produced by Land Use Consultants with the involvement of SNH, OIC, The Highland Council and Marine Scotland. This report describes the entire coastline of Orkney and North Caithness by breaking it down into Regional Coastal Character Areas (RCCA) and then further into Local Coastal Character Areas (LCCA).

6.11.133 The Regional Coastal Character Areas which are especially relevant to this assessment are all classified as Type 12: Deposition Coast of Islands. The assessment below considers the potential effect of the Proposed Development on these five RCCAs with reference to their constituent LCCAs as shown in conjunction with the ZTV in **Figures 6.7** and **6.11**.

10: Rousay North

Baseline

6.11.134 The Rousay North RCCA covers the northern coast of Rousay. It extends from Scabra Head in the west to Saviskaill Bay in the north. 'The Orkney and North Caithness Coastal Character Assessment' (SNH, 2016) defines this RCCA using the following 'Key Characteristics'.

- An open and exposed coast, with some shelter provided in the broad Saviskaill Bay.
- A gently curving coast of layered sandstone cliffs of up to 50 m in height, with numerous sheer-sided geos, blowholes, caves and arches.
- Backed by rough grazing and moorland, on smooth hills which undulate away from the cliff edge.
- Undeveloped except for scattered settlement around the Loch of Wasbister.
- Most rugged, natural and inaccessible between Scabra Head and Saviskaill Head.
- Well-used circular coastal path at Faraclett Head.
- Broad panoramas available over the open Atlantic, including from the B9064 which runs above Saviskaill Bay. Focal points include the Westray cliffs to the north.

6.11.135 The Rousay North RCCA 10 is made up of two LCCAs, namely, 10a Scabra Head to Saviskaill Head and 10b Saviskaill Bay. The ZTV in **Figure 6.7** shows that 10a Scabra Head to Saviskaill Head has the potential to be affected by the Offshore Development and this LCCA is referenced in the detailed assessment below.

Sensitivity

6.11.136 The value of LCCA 10a Scabra Head to Saviskaill Head is medium. It is not covered by any national or regional level designations which would otherwise denote a special scenic landscape value.

6.11.137 The susceptibility of this LCCA to the effects of the Offshore Development will be medium. The orientation of much of this coastline is north-west or north towards the Atlantic Ocean and this will moderate the susceptibility as the Proposed Development will be located to the south-west. Furthermore, it will be located on West Mainland, which is separated from Rousay by the Eynhallow Sound and while the openness of the water allows an association to occur, the Proposed Development will be seen located in a distinctly separate landscape. The limited influence from wind farms and other rural developments along this coastline adds to the susceptibility as it presents characteristics within this RCCA with which the Proposed Development would appear at variance with.

6.11.138 The combination of the medium value and the medium susceptibility gives rise to an overall **medium** sensitivity.

Magnitude of change

6.11.139 The ZTV in **Figure 6.7** shows that visibility of the Proposed Development would be almost continuous across the southern part of the LCCA up to Helia Spur, and no visibility across the northern part of the LCCA. The ZTV shows that all four turbines would be visible from the southern part of the LCCA, and that visibility would be screened from the northern part by the intervening landform of Brae of Moan (122 m AOD). The four turbines would be seen to the south-west, set beyond the northern section of the Eynhallow Sound and behind the edge of coastal hills. The closest turbine would lie 7.3 km from the closest edge of the LCCA and 8.8 km from the furthest part where visibility would arise.

6.11.140 The magnitude of change on LCCA 10a Scabra Head to Saviskaill Head would be **medium**. While the principal orientation of this coastal landscape is north-west towards the North Atlantic, the openness of the Eynhallow Sound allows an association which means that West Mainland will also form a contextual influence on landscape character. The four turbines would occur as large and dynamic structures and with very little baseline influence from other wind farms or turbines, these structures would appear at variance with the undeveloped and semi-remote character of this LCU. The effect would be moderated to some extent by the fact that the four proposed turbines would form a compact group occupying only a small extent of the wider landscape context, although this would be counter-acted by the size of the turbines which would appear at variance with the scale of the coastal hills with which they would be associated. In the northern part, where there would be no visibility, there would be **no change**.

Significance of effect

The effect of the Proposed Development on the coastal character of the southern part of LCCA 10a Scabra Head to Saviskaill Head will be **moderate** and **significant** while there will be **no effect** on the northern part beyond Hellia Spur.

11: Rousay South

Baseline

6.11.141 The Rousay South RCCA is located on the north Caithness coast. It extends from Scabra Head in the west to Scock Ness in the north-east. 'The Orkney and North Caithness Coastal Character Assessment' (SNH, 2016) defines this RCCA using the following 'Key Characteristics'.

- Faces onto the sheltered and generally calm waters of the Eynhallow, Wyre and Rousay Sounds.
- Generally convex coast, with few significant bays.
- Low rocky coastline with a narrow foreshore and small shingle beaches, becoming more irregular in the west.
- Pastoral hinterland rises away from the coast, with a distinctive terraced form to the hillside, backed by steep moorland hills.
- Important archaeology includes Mid Howe Broch and several chambered cairns.
- Scattered dwellings along the B9064 which runs parallel to the coast, the largest of which is Trumland House.
- Views from the B road take in the classic Orkney panorama of numerous islands and seas, from Eday in the east around to the hills of the Mainland in the south-west.

6.11.142 The Rousay South RCCA is made up of four LCCAs, namely; 11a Eynhallow; 11b Scabra to Tratland; 11c Tratland to Point of Avelshay and 11d Point of Avelshay to Scock Ness. The ZTV in Figure 6.7 shows that 11a Eynhallow; 11b Scabra to Tratland; and 11c Tratland to Point of Avelshay have the potential to be affected by the Offshore Development and these LCCAs are therefore referenced in the detailed assessment below.

Sensitivity

6.11.143 The value of this RCCA is medium. This RCCA is not covered by any national or regional landscape designations which would otherwise denote a special value.

6.11.144 The susceptibility of this RCCA to the effects of the Proposed Development is medium. While the eastern part of the RCCA is orientated towards Egilsay and the southern part is orientated towards Wyre, the south-western and western parts are orientated towards West Mainland, where the site is located. While this association raises the susceptibility of the RCCA, this is also moderated by the influence from the single turbines in the adjoining Inclined Coastal Pastures LCT and Moorland Hills LCT and effects from Burgar Hill and Hammars Hill wind farms on West Mainland, at approximately 4.5 km and 4.7 km from the closest LCU boundary.

6.11.145 The combination of the value of this LCU and its susceptibility to the effects of the Proposed Development results in an overall **medium** sensitivity.

Magnitude of change

6.11.146 The ZTV in **Figure 6.7** shows that visibility of the Proposed Development would be continuous along LCCA 11b Scabra to Tratland which lies on the south-west coast of Rousay and continuous along the western part of LCCA 11c Tratland to Point of Avelshay. In respect of LCCA 11a Eynhallow, the ZTV shows visibility to occur around the western side of the island but not the eastern side. The extent of visibility relates to the openness of the west and south-west coasts of Rousay and Eynhallow with views extending over Eynhallow Sound to West Mainland where the Proposed Development would be located. In contrast, the southern coast where LCCA 11c Tratland to Point of Avelshay occurs, is orientated south towards Wyre, with a weaker association with the coast of West Mainland to the south-west where the Proposed Development would be located, and this is reflected in the patchier visibility which dissipates to the east. Here the magnitude of change would be **medium-low**.

6.11.147 LCCA 11b Scabra to Tratland and LCCA 11a Eynhallow would be influenced by all four turbines. These would occur at a minimum of 6.7 km and 4.2 km between the closest turbine and closest edge of each LCCA, such that they would appear as prominent and dynamic structures. While the magnitude of change would be moderated both by the influence from closer range single turbines close to this LCCA 11b Scabra to Tratland, and Burgar Hill Wind Farm and Hammars Hill Wind Farm on the West Mainlans, the magnitude of change would be **medium** owing to the larger size of the

proposed turbines. This also takes into account the contained extent of the four turbines within the wider context and their partial concealment behind the intervening coastal hills.

Significance of effect

6.11.148 The effect of the Proposed Development on the coastal character of LCCA 11b Scabra to Tratland and LCCA 11a Eynhallow RCCA would be **moderate** and **significant**, while the effect on LCCA 11c Tratland to Point of Avelshay would be **moderate / minor** and **not significant**.

12: Egilsay and Wyre

Baseline

6.11.149 The Egilsay and Wyre RCCA is located on the north Caithness coast. This RCCA extends around the coastlines of both islands. 'The Orkney and North Caithness Coastal Character Assessment' (SNH, 2016) defines this RCCA using the following 'Key Characteristics'.

- Small, teardrop shaped islands located to the east (Egilsay) and south-east (Wyre) of Rousay.
- Face onto relatively sheltered seas, particularly the Rousay Sound and Wyre Sound.
- Both islands have a low, rocky coastal edge with occasional small beaches of shingle and sand, and Egilsay has white sands on its east coast.
- Both islands form smooth, elongated mounds with a central ridge line, with Egilsay being larger. Land cover is improved pasture and rough grazing.
- Scattered settlement located on higher ground away from the coastal edge.
- The round tower of St Magnus Church on Egilsay is a key landmark.
- Views north and west to the high hills of Rousay, and east and south across the enclosed sea to a panorama of islands.

6.11.150 The Egilsay and Wyre RCCA 26 has not been defined in terms of LCCAs, and, therefore, there are no references to LCCAs in the detailed assessment presented below.

Sensitivity

6.11.151 The value of this RCCA is medium. This RCCA is not covered by any national or regional landscape designations which would otherwise denote a special value.

6.11.152 The susceptibility of this RCCA to the effects of the Proposed Development is medium. There are no wind farms or turbines on these islands and settlement is typically sparse, small in scale and rural in character and these factors all add to the susceptibility of the surrounding coastlines to the effects of the Proposed Development. The association between these coastlines and the site of the Proposed Development varies with Egilsay having very little association owing to the intervening landform of the Moorland Hills LCT on Rousay and Wyre having a closer association owing to its location out in the open seascape to the south of Rousay, although the coastlines either face north or south.

6.11.153 The combination of the value of this RCCA and its susceptibility to the effects of the Proposed Development results in an overall **medium** sensitivity.

Magnitude of change

6.11.154 The ZTV in **Figure 6.7** shows that there would be no visibility of the Proposed Development from Egilsay, apart from a small section of the southern tip at a minimum distance of 16km. Visibility around Wyre would be more extensive with all four turbines seen from the northern and southern coastlines. While the Proposed Development would be located to the west, there is no west coast on Wyre, only an elongated headland called The Taing. There, would therefore, be no coasts with direct alignment towards the Proposed Development, which would be located a minimum of 11.3 km from the closest turbine.

6.11.155 There would be **no change** on the landscape character across the western coastline of the RCCA where there would be no visibility of the Proposed Development. The southern and northern coasts of the RCCA would be influenced by all four turbines and here the magnitude of change would be **medium**. The Proposed Development would occur at a minimum of 11.3 km and be seen set behind the Coastal Hills and Heath LCT of West Mainland. While the large scale of the proposed turbines would still be apparent from this range and accentuated by comparison with the smaller scale hills on which they sit, there would also be a comparison with the closer range Burgar Hill and Hammars Hill wind farms, which would reduce the magnitude of change by ensuring that the Proposed Development would not form a new influence on the coastal character of this RCCA.

Significance of effect

6.11.156 The effect of the Proposed Development on the coastal character of Wyre would be **moderate** and **not significant** while there would be **no effect** on the coastal character of Egilsay.

26: Marwick Head and Bay of Skaill

Baseline

6.11.157 The Marwick Head and Bay of Skaill RCCA covers the north-western coast of West Mainland. It extends from Birsay Bay in the north to Bay of Skaill in the south and includes Marwick Head. The Orkney and North Caithness Coastal Character Assessment (SNH, 2016) defines this RCCA using the following 'Key Characteristics'.

- Relatively straight sections of rocky coastline facing west onto the open Atlantic, with a series of semi-enclosed bays providing a degree of shelter.
- Bays vary in character, from the wide, sandy Bay of Skaill to the small and rocky Marwick Bay with its intertidal lagoon.
- Coast is relatively low-lying except at Marwick Head where cliffs rise to 87 m.
- Pastoral hinterland rising to inland hills, with some moorland on higher ground and sand dunes fringing the sandier bays.
- Largely unsettled, but rich in built heritage features including Skara Brae, a Neolithic Village at the heart of the Neolithic Orkney WHS.
- Rolling terrain allows panoramic views along the coast, and the open seas to the west.

6.11.158 The Marwick Head and Bay of Skaill RCCA 26 is made up of four LCCAs, namely; 26a Bay of Skaill; 26b Point of Howana Geo to Choldertoo; 26c Marwick Head and 26d Birsay Bay. The ZTV in Figure 6.7 shows that 26c Marwick Head and 26d Birsay Bay have the potential to be affected by the Offshore Development and both of these LCCAs are referenced in the detailed assessment below.

Sensitivity

6.11.159 The value of this RCCA is medium. This RCCA is not covered by any national or regional landscape designations which would otherwise denote a special value.

6.11.160 The susceptibility of this RCCA to the effects of the Proposed Development is medium. There are no wind farms or turbines along this coastal edge and while there are single turbines in the farmed hinterland, operational Burgar Hill and Hammars Hill wind farms are located on the Moorland Hills LCT further to the east. This means that their influence on landscape character is limited and this, along with the sparse occurrence of rural development close to the bays but not along the headlands adds to the susceptibility of this RCCA to the effects of the Proposed Development. The susceptibility of this RCCA is, however, limited by its orientation westwards and strong association with the North Atlantic in this direction, while the Proposed Development would be located in the opposite direction to the east.

6.11.161 The combination of the value of this RCCA and its susceptibility to the effects of the Proposed Development results in an overall **medium** sensitivity.

Magnitude of change

6.11.162 The ZTV in **Figure 6.7** shows that visibility of the Proposed Development would be almost continuous along the coastline of LCCA 26c Marwick Head and LCCA 26d Birsay Bay between Marwick Head and Birsay Bay and then with no visibility across the LCCAs to the south of this, apart from a small patch on the southern side of LCCA 26a Bay of Skaill at the very south of the overall Marwick Head and Bay of Skaill RCCA. All four turbines would be seen from LCCA 26d Birsay Bay at a minimum distance of 5.1 km and from LCCA 26c Marwick Head at a minimum distance of 7.1 km. They would be seen to the east of these LCCAs and set amongst the Coastal Hills and Heath LCT, with intervening Kirbuster Hill providing some partial screening.

6.11.163 LCCA 26c Marwick Head and LCCA 26d Birsay Bay would be influenced by all four turbines. These would occur at a minimum of 6.2 km and 5.1 km between the closest turbine and closest edge of each of the LCCAs, such that they would appear as prominent and dynamic structures. While the magnitude of change would be moderated by the orientation of this coastline towards the North Atlantic, the influence from closer range single turbines close to these LCCAs, and the influence from Burgar Hill and Hammars Hill wind farms in the Moorland Hills LCT at a minimum of 9.2 km and 14.0 km, the magnitude of change would be **medium** owing to the larger size of the proposed turbines and the influence these will have on the predominantly small scale and rural coastal character. This also takes into account the contained extent of the four turbines within the wider context and their partial concealment behind the intervening coastal hills.

Significance of effect

6.11.164 The effect of the Proposed Development on LCCA 26c Marwick Head and LCCA 26d Birsay Bay would be **moderate** and **significant**.

27: Brough Head to Costa Head

Baseline

6.11.165 The Brough Head to Costa Head RCCA covers the northern coast of West Mainland. It extends from Brough of Birsay in the west to Costa Head in the east. 'The Orkney and North Caithness Coastal Character Assessment' (SNH, 2016) defines this RCCA using the following 'Key Characteristics'.

- North facing onto the open Atlantic, exposed to wind and waves.
- Undeveloped coastline of small to large scale cliffs up to 50 m in height, with numerous geos and occasional small shingly beaches.
- Maritime influences include Skipi Geo, a sheltered bay with historic boat nousts and a fishermen's hut.
- Open pasture undulates gently away from the coast, with moorland at Costa Head.
- Settlement tends to be located inland, along the roads which run parallel to the coast.
- The Brough of Birsay is a small rounded tidal island accessed at low tide via a causeway across the intertidal rock. Built features include a Celtic Monastery, Viking Settlement and 11th Century Cathedral & Bishop's Palace on the sheltered east facing side of the Brough.
- Uninterrupted views across the Atlantic are a feature, with views along the coast being contained by landform including the Brough of Birsay to the west and Costa Head to the east.

6.11.166 The Brough Head RCCA 27 is made up of three LCCAs, namely; 27a Brough of Birsay; 27b Point of Buckquoy to Crooie; and 27c Costa Head. The ZTV in Figure 6.7 shows that all three of these LCCAs have the potential to be affected by the Offshore Development and all three are referenced in the detailed assessment below.

Sensitivity

6.11.167 The value of this RCCA is medium. This RCCA is not covered by any national or regional landscape designations which would otherwise denote a special value.

6.11.168 The susceptibility of this RCCA to the effects of the Proposed Development is medium. The northern orientation of this RCCA means that it forms a strong association with the North Atlantic and that the susceptibility would be moderated owing to its weaker association with the hinterland in the opposite direction to the south, where the Proposed Development would be located. There are no wind farms or turbines along or close to this coast, although there is visibility of Burgar Hill from some parts of the coastline at a minimum of 4.5 km and even less of Hammars Hill at a minimum of 10.2 km. While there is some rural settlement and roads close to the western section of the RCCA the central and eastern parts are largely undeveloped and characterised principally by the coastal cliffs and other coastal features.

6.11.169 The combination of the medium value of this RCCA and its medium susceptibility to the effects of the Proposed Development results in an overall **medium** sensitivity.

Magnitude of change

6.11.170 The ZTV in **Figure 6.7** shows that visibility of the Proposed Development would occur from the eastern and southern coasts of LCCA 27a Brough of Birsay. All four turbines would be seen at a range of approximately 6 km to 7 km and the magnitude of change would be **medium-low** owing to the lower lying nature of the coast relative to the surrounding landform and the screening effect on the extent of the proposed turbines that would be visible.

6.11.171 From LCCA 27b Point of Buckquoy to Crooie, visibility would be limited to mostly to two or three turbines with a small patch of no visibility in the eastern extent of this LCCA. These turbines would be seen at a minimum distance of approximately 3 km to 5 km and seen as blades, with visibility reduced by the screening effect of the intervening landform. Here the magnitude of change on coastal character would be **medium-low**.

6.11.172 From LCCA 27c Costa Head, visibility would also be limited by the effect of intervening landform, which is higher than the coastal edge, although there would be some visibility in the central section of this LCCA between Oyce and Costa Hill. Where visibility does arise, the proposed turbines would be seen set in the coastal hills to the south of the coast at a range of approximately 3 km. Allthoughthe proposed turbines would be seen as large and dynamic structures from this close range, the extent to which they would be screened by the intervening landform coupled with the stronger association this coastline has with the North Atlantic to the north than the rural hinterland to the south, ensures that the Proposed development would not become the defining feature. The magnitude of change would be **medium** where visibility arises and with **no change** where there would be no visibility.

Significance of effect

6.11.173 The effect of the Proposed Development on the coastal character of LCCA 27a Brough of Birsay; LCCA 27b Point of Buckquoy to Crooie; and LCCA 27c Costa Head would be **moderate** or **moderate / minor** and **not significant**, while there would be **no effect** on those sections of coastline where there would be no visibility.

6.12 Residual Effects on Visual Receptors

Introduction

6.12.1 The assessment of effects on visual receptors comprises an evaluation of the effects at each of the representative viewpoints. This is carried out on site, using wirelines and photomontages to inform the assessment.

6.12.2 The viewpoint locations are shown in conjunction with the blade tip ZTVs in **Figures 6.2** and **6.3** and hub height ZTVs in Figures **6.4** and **6.5**. The viewpoints are illustrated in **Figures 6.19** to **6.37** where a photograph of each view is accompanied by a computer-generated wireline and a

photomontage. The photographs and cumulative wirelines contained in **Figures 6.19** to **6.37** have a 90-degree field of view. Wirelines and photomontages of the Proposed Development are presented with a 53.5-degree field of view.

6.12.3 In the wirelines, the Proposed Development turbines are shown in red, operational wind farms are shown in black, under construction wind farms are shown in purple, consented wind farms are shown in green, application wind farms are shown in blue, and scoping stage wind farms shown in orange.

Assessment of Effects on Representative Viewpoints

Viewpoint 1: A966, Loch of Swannay

Baseline

6.12.4 The A966 is the main road along the east and north coasts of West Mainland. The viewpoint is located adjacent to the A966, where it comes close to the north-east shoreline of the Loch of Swannay. While there is no formal layby, there are informal spaces by the roadside from where the view over the loch can be appreciated. This viewpoint is representative of the views of road-users on the A966 and residents in the local area.

6.12.5 The rising landform of the coastal hills encloses the northern aspect from this viewpoint, while the southern aspect opens up across the Loch of Swannay, and it is in this direction that the views of road-users are drawn. The loch is enclosed by the coastal hills to the south-east, and the moorland hills to the south-west. These landscapes are distinguished by the lower elevation of the coastal hills, the lighter green of the improved and enclosed fields of pasture, and the presence of intermittent farmsteads, compared with the slightly higher elevation of the moorland hills, the darker brown of the moorland vegetation, and the absence of settlement. In terms of larger scale developments, Burgar Hill Wind Farm is visible in the moorland hills to the south-west at a minimum of 4.6 km, and the single turbine on Hundland Hill is visible to the south.

Sensitivity

6.12.6 The value of this viewpoint is medium-high. While there are no formal viewpoints in the area, and the viewpoint and surrounding landscape are not covered by any landscape planning designations which would otherwise denote a special value, the northern section of the A966 coincides with National Cycle Route 1 (NCR 1).

6.12.7 The susceptibility of this viewpoint to the Proposed Development is medium-high. The proximity of the road to the water combined with the openness of the loch and landscape means that road-users will experience open views across the loch over an approximate 1.9 km stretch. This means that although the views will be transitory and experienced whilst travelling at speeds of 40 to 50mph, the duration of the view will increase the influence it will have on road-users. Visibility of the Proposed Development is more likely to occur in respect of south-bound road-users travelling on the section of the A966 along the eastern shoreline than north-bound road-users, whose views will be at a more oblique angle. Although the elevation and orientation of properties in this area is variable, the susceptibility of residents who will experience visibility will be high owing to the longer duration of their views and their proximity to the Proposed Development.

6.12.8 The combination of the medium-high value of the view and viewpoint, and the medium-high susceptibility of road-users and high susceptibility of residents gives rise to a **high** sensitivity.

Magnitude of change

6.12.9 The wireline in **Figure 6.19c** and photomontage in **Figure 6.19g** show that all four of the turbines would be readily visible from this viewpoint, and almost all seen to their full height of up to 180 m. They would be seen to the south of the viewpoint at a minimum of 2.2 km, with two turbines seen set just behind the ridgeline of Hundland Hill, and two set on the lower slopes to the left. There would also be visibility of the access tracks crossing the eastern slope of the hill.

6.12.10 The magnitude of change during the operational phase would be **high**. The four turbines would appear large in relation to the relatively small scale of Hundland Hill on which they would sit, and the movement of the blades would form a dynamic feature in an otherwise largely static landscape. Albeit at a smaller-scale and a ground-level component, visibility of the access track would, nonetheless, appear at variance with the simple landform and landcover of the hill and would add to the overall effect. While Burgar Hill Wind Farm establishes turbines as part of the baseline character, their smaller size would be readily evident, and this comparison would accentuate the larger scale of the proposed turbines.

6.12.11 The magnitude of change during the construction phase would also be **high**. The openness of the view and the exposed nature of Hundland Hill would mean that most of the ground level construction works, including track, foundation and hard-standing construction would be readily visible, as well as the more prominent presence of the tall cranes used in construction and the emerging proposed turbines.

Significance of effect

6.12.12 The effect of the Proposed Development on the views of road-users and residents during both the construction and operational phases would be **major** and **significant**.

Viewpoint 2: A966, Hundland Road junction

Baseline

6.12.13 The A966 passes through the low and gently undulating coastal hills of the north of West Mainland, from where views extend north towards the North Atlantic and south across the hinterland. The viewpoint is located at the right-angled bend in the road, to the south of Swannay Farm and from where the minor road to Kirbuster extends further south. While settlement is fairly sparse across the coastal hills, there are a number of intermittent farmsteads and other rural properties, either set on or accessed from the A966. This viewpoint is representative of the views experienced by local residents and road-users on the A966.

6.12.14 The view is characterised by farmland which covers this coastal landscape, and which comprises fields of improved pasture enclosed by stone dykes or post and wire fencing. This creates an open and exposed landscape with views ranging as far as the landform allows. The view south, towards the site, is enclosed by the low ridgeline formed by the northern slopes extending off Hundland Hill. A cluster of rural properties are seen set along this ridgeline, with properties also close to the viewpoint and across the more distant ridge to the left. In addition to the small-scale domestic turbines visible in the fore to middle-ground, the upper parts of the Burgar Hill turbines are also visible above the ridgeline to the left.

Sensitivity

6.12.15 The value of this viewpoint is medium-high. While there are no formal viewpoints in the area, and the viewpoint and surrounding landscape are not covered by any landscape planning designations which would otherwise denote a special value, the northern section of the A966 coincides with National Cycle Route 1 (NCR 1).

6.12.16 The susceptibility of residents to the Proposed Development is high and the susceptibility of road-users is medium-high. Although settlement is generally sparse, the openness of the landscape means that open views are a key feature from many of the rural properties and this raises the susceptibility of local residents. Similarly, the views of road-users on the A966 are open, and although the views northwards present a more scenic aspect, views across the hinterland still have a notable influence on the overall experience from this coastal road. The viewpoint marks a point where the speed of road-users will be reduced and both west and east-bound road-users experience views across the southern aspect where the site is located.

6.12.17 The combination of the medium-high value and the high or medium-high susceptibility gives rise to a **high** sensitivity.

Magnitude of change

6.12.18 The wireline in **Figure 6.20c** and photomontage in **Figure 6.20g** show that all four turbines would be visible from this viewpoint. They would be seen set behind the intervening ridgeline and associated properties at a minimum of 1.4 km. While the turbine on the right would be seen to practically its full extents, two would be seen with their towers partly concealed and the remaining one would be seen from just below the hub. Despite the reduced extents of visibility, the close proximity ensures that the turbines would be seen as especially large and dynamic structures.

6.12.19 The magnitude of change during the operational phase would be **high**. The close proximity of the viewpoint to the turbines means that they would appear as large scale and dynamic structures, with their large scale accentuated through comparison with the closer range properties on the ridgeline and the smaller Burgar Hill Wind Farm turbines further to the left. While human influences are evident in the baseline view, the large scale of the proposed turbines would form a new and defining feature.

6.12.20 The magnitude of change during the construction phase would also be **high**. Although the enclosing nature of the ridgeline to the south would mean that the ground works would be screened from this viewpoint and associated visual receptors, the presence of the crane used during construction and the emerging structures of these large-scale turbines would form a close-range and eye-catching feature.

Significance of effect

6.12.21 The effect of the Proposed Development on road-users and residents during the construction and operational phases would be **major** and **significant**.

Viewpoint 3: Vinquin Hill, Costa

Baseline

6.12.22 Vinquin Hill forms part of the coastal hills and is situated on the eastern side of the Loch of Swannay. There are the remains of a Broch on the summit (~100 m AOD) with rough, marshy ground and some small lochans across the hilltop and enclosed fields of improved pasture covering the hill slopes. While there are clusters of properties along the A966 to the north-east and north, across the shallower western and southern flanks, there are only a small number of farmsteads, minor roads and tracks. The viewpoint is located on the minor road that extends south-west from the A966 towards Loch of Swannay at the corner bend next to Newtown Farmstead. It is representative of the views of road-users on the A966 and rural roads and residents in the farmsteads and other rural properties.

6.12.23 The view looks east across the foreground comprising the farmed eastern shore, the middleground comprising the Loch of Swannay and the background comprising the low coastal hills, where the Proposed Development would be located. The combination of the Loch of Swannay and the enclosure formed by the gently undulating coastal hills forms a simple and scenic combination. The settled and farmed nature of much of this landscape is evident through the presence of dispersed farmsteads, modified bright green of the improved pasture and filed enclosures, although further to the left, the less modified and developed nature of the moorland hills is also evident. In terms of larger scale development, all six turbines of Burgar Hill Wind Farm can be seen in the Moorland Hills at approximately 2.7 km to the south and a smaller scale domestic turbine can be seen on Hundland Hill to the east.

Sensitivity

6.12.24 The value of this viewpoint is medium. There are no formal viewpoints in this area and no landscape planning designations which would otherwise denote a special value.

6.12.25 The susceptibility of residents is high, and the susceptibility of road-users is medium-high. Many of the farmsteads and other properties on Vinquin Hill are aligned to follow the fall of the landform from west to east with views extending across the Loch of Swannay to the coastal hills beyond. This raises the susceptibility of residents as the Proposed Development would be located in the

same sector as the orientation of many of the properties and the views of residents would be affected over long periods of time. While the orientation of the A966 would be either perpendicular or at an oblique angle to the location of the Proposed Development, the minor roads to the north and south of Vinquin Hill are both broadly orientated westwards, such that road-users would experience views directed towards the proposed turbines. Despite the transitory nature of road-users and the short duration of the views they would experience, the openness of the landscape means that the Proposed Development would be visible from long sections of the local roads.

6.12.26 The combination of the medium value and the high susceptibility gives rise to an overall **medium-high** sensitivity.

Magnitude of change

6.12.27 The wireline in **Figure 6.21c** and photomontage in **Figure 6.21g** show that all four turbines would be visible, seen set on Hundland Hill at minimum of 1.5 km to the east of the viewpoint. All four turbines would be seen at practically their full height of up to 180 m and the moving blades would form a dynamic feature in an otherwise largely static landscape.

6.12.28 The magnitude of change during the operational phase would be **high**. The close proximity of the viewpoint to the turbines means that they would appear as large scale and dynamic structures, with their large scale accentuated through comparison with the low Hundland Hill on which they sit and the smaller Burgar Hill Wind Farm turbines further to the left. While human influences are evident in the baseline view, the large scale of the proposed turbines would form a new and defining feature. The exposed nature of the eastern hillside would also mean that the tracks, foundations and hard-standings would form readily visible features at variance with the simple landform and landcover of the hill and would add to the overall effect despite their smaller scale and ground level location.

6.12.29 The magnitude of change during the construction phase would also be **high**. The openness of the view and the exposed nature of Hundland Hill would mean that most of the ground level construction works, including track and hardstanding construction would be readily visible, as well as the more prominent presence of the tall crane used in construction and the emerging proposed turbines.

Significance of effect

6.12.30 The effect of the Proposed Development on this viewpoint during the construction and operational phases would be **major** and **significant**.

Viewpoint 4: Mid Hill

Baseline

6.12.31 The viewpoint is located on the summit of Mid Hill (193 m AOD) which is a small hill situated in the moorland hills in the north-east of West Mainland. It is accessed from the B9057 which connects the A966 at Evie with the A986 at Dounby. The hill is gently rounded with a fairly level summit and slightly steeper slopes to the north. The landcover comprises rough moorland vegetation with extensive evidence of peat extraction in the form of deeply rutted landform. The viewpoint is representative of the views of walkers on this hill.

6.12.32 Walkers experience panoramic views from the summit, with the High Hills of Hoy visible to the south, the North Atlantic visible to the west, Loch of Swannay and Costa Head visible to the north and East Mainland and the Wide Firth visible to the east. While the surrounding landscape is characterised by the upland landform and rough moorland landcover, the contrasting settled and farmed landscapes visible beyond, denote a more extensive human influence. In terms of larger scale developments, Burgar Hill Wind Farm is located a minimum of 1.3 km to the east, such that the six turbines are readily visible and establish wind farm development as a prominent feature in the baseline view.

Sensitivity

6.12.33 The value of this viewpoint is medium-high. Although there are no formal viewpoints in the area, the hilltop presents an informal viewpoint from which an elevated and panoramic view can be experienced. The viewpoint and much of the surrounding landscape is not covered by any landscape planning designations which would otherwise denote a special value.

6.12.34 The susceptibility of walkers on Mid Hill to the effects of the Proposed Development is medium. Those factors which contribute to the susceptibility of walkers includes their expectation to enjoy a remote and rural landscape with open and expansive views from the summit. Those factors which detract from their susceptibility include the fact that Burgar Hill Wind Farm already has a notable influence that establishes this type of development as a baseline feature of the views, and visible evidence of other human influences in this landscape including extensive peat extraction across this hill and the extent of settlement and farming in the wider landscape.

6.12.35 The medium-high value of the viewpoint combined with the medium susceptibility of the viewers leads to an overall **medium-high** sensitivity.

Magnitude of change

6.12.36 The wireline in **Figure 6.22c** and photomontage in **Figure 6.22g** show that all four of the proposed turbines would be visible, seen to the north of the viewpoint at a minimum distance of 3.2 km. They would occupy a relatively contained extent of the wider panoramic view and although all four turbines would be visible to almost their full extents, the lower parts of two towers would be partly concealed by the intervening landform of Mid Hill.

6.12.37 The magnitude of change during the operational phase would be **medium**. The main moderating factor on this rating would be the presence and influence of Burgar Hill Wind Farm on the adjacent hill. Despite the larger size of the proposed turbines, their minimum distance of 3.2 km compared to the minimum distance of the operational turbines at 1.3 km, means that the closer turbines would appear larger in scale, and this would moderate the perceived scale of the proposed turbines. Furthermore, the operational turbines are seen to practically their full height and seen to extend across the ridge of Burgar Hill. In contrast, the proposed turbines would form a compact group that would be seen set at a lower elevation below Mid Hill and these factors reduce its prominence. It would, however, introduce wind farm development into this northern sector where currently there is only a limited influence from the single turbine on Hundland Hill. While some of the infrastructure would be screened by the intervening landform, the access tracks, foundations and hard-standings across the northern and eastern hill slopes would be readily evident from this elevated perspective and would add to the overall effect by appearing at variance with the simple landform and landcover of the hill.

6.12.38 The magnitude of change during the construction phase would also be **medium**. Although the intervening northern edge of Mid Hill would screen ground level works across the lower slopes of Hundland Hill, they would be evident across the eastern, central and northern parts, with the construction of access tracks, foundations and hard-standings being visible. Furthermore, the presence of the tall crane used during construction and the emerging structures of these large-scale turbines would form a readily apparent and eye-catching feature.

Significance of effect

6.12.39 The effect of the Proposed Development during the construction and operational phases on walkers on Mid Hill would be **moderate** and **significant**. Despite the existing influence from nearby Burgar Hill Wind Farm, the addition of the Proposed Development would have a notable effect.

Viewpoint 5: Kirbuster, Loch of Hundland

Baseline

6.12.40 This viewpoint is taken from the minor road that connects the A986 near Twatt and the A966 near Swannay. It is located where the road rounds the southern flank of Kirbuster Hill (102 m AOD). Here, the rising landform to the west contains the view, while to the east it opens out across Loch

of Hundland with Hundland Hill (106 m AOD) forming the enclosing ridgeline in this direction. There is a small number of rural properties spaced along this minor road and occasional road-users passing through. The viewpoint is representative of the relatively small number of residents and road-users who live and travel in this rural area.

6.12.41 The view is characterised by the combination of the low hills and open water. Fields of improved pasture extend across much of the landscape with the exception of the hilltops and slightly higher moorland hills to the south, where the darker brown of the moorland vegetation distinguishes them from the bright green of the improved pasture. The intermittent farmsteads and other rural properties denote the settled nature of this area, with complexes of buildings and sheds accentuating this influence, as evident with the Nisthill and Hundland farms on Hundland Hill. The Burgar Hill turbines are also evident, seen set on the ridge of the moorland hills to the right of Hundland Hill.

Sensitivity

6.12.42 The value of the viewpoint and the view is medium. There are no formal viewpoints in this area, and the viewpoint and the surrounding area are not covered by any landscape planning designations which would otherwise denote a special value.

6.12.43 The susceptibility of the residents is high, and the susceptibility of road-users is medium-high. Many of the properties on the western side of Loch of Hundland are aligned so that views extend across the water to Hundland Hill on the opposite side. This raises the susceptibility of residents as the Proposed Development would be located in the same sector as the orientation of many of the properties and the views of residents would be affected over long periods of time. While the orientation of the minor road would be mostly perpendicular or at an oblique angle to the location of the Proposed Development, in the section to the south of the viewpoint it would align towards it. From the other sections not aligned towards the Proposed Development, the openness of the landscape would mean that road-users would still experience clear views, even though they would be in transit at speeds of approximately 30 mph to 40mph.

6.12.44 The medium value of the viewpoint combined with the high or medium-high susceptibility of the viewers leads to an overall **medium-high** sensitivity.

Magnitude of change

6.12.45 The wireline in **Figure 6.23c** and photomontage in **Figure 6.23g** show that all four turbines would be readily visible, with two seen to practically their full height and two with towers partly concealed by the landform of Hundland Hill. At a minimum distance of 1.5 km, the 180 m tall turbines would appear large in scale and the movement of the blades would appear at contrast with this otherwise largely static landscape. The openness along the western bank of the Loch of Hundland means that residents and road-users would experience clear views of the Proposed Development.

6.12.46 The magnitude of change during the operational phase would be **high**. The close proximity of the viewpoint to the 180 m tall turbines means that they would appear as large scale and dynamic structures, with their large scale accentuated through comparison with the low Hundland Hill (106 m AOD) on which they would sit and the smaller Burgar Hill Wind Farm turbines at 5.0 m seen further to the right. While human influences are evident in the baseline view, the large scale of the proposed turbines would form a new and defining feature. The exposed nature of the western hillside would also mean that the track crossing the north-western slopes would be readily visible, along with the substation building located close to the junction between Hundland Road and minor road to Nisthouse Farm. These components would add to the overall effect by appearing at variance with the simple landform and landcover of the hill, despite their relatively small scale and ground level location.

6.12.47 The magnitude of change during the construction phase would also be **high**. Although the ground works on the eastern side of Hundland Hill would be screened in this view, the construction of the access tracks, substation, and hard-standings and foundations associated with the northern and southern turbines on the western side would be readily visible. The construction compound would be located next to the substation and also readily visible from this viewpoint. The most notable

change in this view would, however, relate to the presence of the tall crane used in the construction of the turbines and their emerging structures.

Significance of effect

6.12.48 The effect of the Proposed Development during the construction and operational phases on the views of residents and road-users in this local area would be **major** and **significant**.

Viewpoint 6: Brough of Birsay

Baseline

6.12.49 The Brough of Birsay is an uninhabited tidal island set off the north-west corner of West Mainland and linked by a concrete causeway over the rocky skerries. The grass covered landform rises from the east to the west with high cliffs occurring around the west and the north, providing a home for hundreds of sea birds. Brough of Birsay is of historical importance owing to the remains of 7th and 8th Century Pictish settlements, a 9th Century Viking settlement and 12th Century monastery. The viewpoint is located adjacent to these historic sites, set on the more elevated landform on the western side to ensure a clear view back to West Mainland. The viewpoint is representative of the views of visitors to the island.

6.12.50 The view looks east-south-east towards the low coastal hills that define the north-west corner of West Mainland. The view is characterised by the varied coastal features including the high cliffs seen along the northern coast, the broad band of skerries separating West Mainland and the Brough of Birsay and the sandy and stony beaches around the Bay or Birsay on the western coast. The hinterland comprises gently undulating farmland, with fields of improved pasture and both clustered and dispersed settlement. While small scale and rural development is readily evident, there is little influence from larger scale developments with only the tips of Burgar Hill Wind Farm theoretically visible, but not actually discernible in the field.

Sensitivity

6.12.51 The value of this viewpoint is medium-high. Although the view is not taken from a formal viewpoint, and there are no landscape planning designations which would otherwise denote a special scenic value, the Brough of Birsay is an attractive destination for visitors on account of both its historic importance and scenic value.

6.12.52 The susceptibility of visitors to the effects of the Proposed Development is medium-high. Those factors that add to the susceptibility include the fact that visitors to this area have a heightened awareness of their surroundings, and while the focus will largely be on the Brough of Birsay, the wider landscape setting will also have an influence. Furthermore, the landform falls from west to east, such that views are naturally drawn eastwards, in direction of where the Proposed Development would be located, and there is very little influence from wind turbines or wind farms in this view, such that the introduction of the Proposed Development would make a notable change to the baseline. Those factors that moderate the magnitude of change, however, include the extent to which the West Mainland has been modified by farming practices and settlement, which reduce any sense of remoteness or naturalness.

6.12.53 The medium-high value of the viewpoint combined with the medium-high susceptibility gives rise to an overall **medium-high** sensitivity.

Magnitude of change

6.12.54 The wireline in **Figure 6.24c** and photomontage in **Figure 6.24g** show that all four of the proposed turbines would be visible, albeit all four screened to varying extents by the intervening landform of the coastal hills. While the hubs of two turbines would be visible, the other two would be seen only as blades. They would be seen at a minimum of 6.0 km to the east of the viewpoint.

6.12.55 The magnitude of change during the operational phase would be **medium**. This rating is moderated by the fact that all four turbines would be partly screened, such that they would not be seen at their full height, the separation distance of 6.0 km which means that they will not be seen as especially large-scale structures, the small number of turbines which means that they will

occupy only a small proportion of a much wider view, and the extent of rural development evident in this view, albeit all relatively small in scale. The proposed turbines will, nonetheless, introduce four large, modern and moving structures into a view where such structures are not readily evident. They would appear at variance with the small-scale and rural character of the landscape and the movement of the blades across the ridgeline would form an eye-catching feature.

6.12.56 The magnitude of change during the construction phase would also be **medium**. Although the enclosing nature of the ridgeline to the east would mean that the ground works would be screened from this viewpoint and associated visual receptors, the presence of the crane used during construction and the emerging structures of the upper parts of these large-scale turbines would form an eye-catching feature set behind the ridgeline.

Significance of effect

6.12.57 The effect of the Proposed Development during the construction and operational phases on visitors to the Brough of Birsay would be **moderate** and **significant**.

Viewpoint 7: A967, Birsay Community Hall

Baseline

6.12.58 Birsay Community Hall is a modern building, set on the A967 and orientated eastwards across the northern end of the Loch of Boardhouse. It is situated to the immediate south of the Birsay Hostel and Campsite, which is a traditional stone building set in the corner plot at the junction between the A967 and the B9056 and with the campsite set behind to the west. There is also a farmhouse set further to the west of the campsite on the B9056. The viewpoint is representative of locals and visitors staying in this area, as well as road-users on the A967 and B9056.

6.12.59 The viewpoint is located on the western side of the Loch of Boardhouse, with the view extending across the open water to the coastal hills, which enclose the loch basin to the north, east and south. Kirbuster Hill is the coastal hill visible to the east, behind which Hundland Hill sits, and Ravie Hill is the coastal hill to the south, which forms a steep and well-defined ridgeline in this direction. The landcover comprises mostly fields of improved pasture enclosed by stone dykes or post and wire fences. As well as the modified nature of the landscape through extensive farming practices, the other human influences include the presence of rural development, most notably the community centre and associated car park from the view is taken, but also the dispersed settlement evident across the view. While two of the Burgar Hill turbines are visible on the distant ridgeline to the east and a single turbine visible on Ravie Hill to the south, these influences are fairly limited.

Sensitivity

6.12.60 The value of this viewpoint is medium. There are no formal viewpoints in this area and the viewpoint and surrounding landscape are not covered by any landscape planning designations which would otherwise denote a special scenic value.

6.12.61 The susceptibility of viewers at this viewpoint is high. The community centre and the hostel are both orientated eastwards towards the Loch of Boardhouse and in the direction of the site of the Proposed Development. This means there is the potential for residents and visitors to experience these views for a sustained period of time. The section of the A967 either side of the viewpoint, follows a north to south orientation such that the views of road-users would be perpendicular to the location of the Proposed Development. The openness of the landscape does, however, mean that clear views would still be experienced despite the oblique angle at which they would occur. In contrast, the B9056 aligns directly towards the Proposed Development and from here, east-bound road-users will experience direct views. Despite the transitory nature of the road-users, the openness of the landscape means that their views will be affected over considerable sections of these roads and, therefore, for a longer period of time.

6.12.62 The combination of the medium value and the high susceptibility gives rise to an overall **medium-high** sensitivity.

Magnitude of change

6.12.63 The wireline in **Figure 6.25c** and photomontage in **Figure 6.25g** show that all four of the proposed turbines would be visible, albeit all four partly screened by the intervening landform of Kirbuster Hill. While the hubs of three turbines would be visible, the fourth turbine would be seen only as blades. They would be seen at a minimum of 4.5 km to the east of the viewpoint.

6.12.64 The magnitude of change during the operational phase would be **medium-high**. This rating is moderated by the fact that all four turbines would be partly screened, such that they would not be seen to their full extents, the separation distance of 4.5 km, which means that they will not be seen as especially large scale structures, the small number of turbines which means that they will occupy only a small proportion of a much wider view, and the extent of rural development and wind turbines evident in this view, albeit all relatively small in scale. The proposed turbines would, nonetheless, introduce four up to 180 m tall, modern and moving structures into a view which is characterised by the scenic combination of the open loch and surrounding low coastal hills. They would appear at variance with the small-scale and rural character of the landscape and the movement of the blades across the ridgeline would form an eye-catching feature.

6.12.65 The magnitude of change during the construction phase would also be **medium-high**. Although the ground works would be screened in this view by the intervening landform of Kirbuster Hill, the construction of the middle and upper parts of the proposed turbines and the presence and activity of the tall crane used in their construction would be readily visible.

Significance of effect

6.12.66 The effect of the Proposed Development during the construction and operational phases on the views of residents associated with this cluster of buildings and road-users on the A967and B9056 would be **major / moderate** and **significant**.

Viewpoint 8: A967, Twatt

Baseline

6.12.67 This viewpoint is located on the A967 to the north of the small, nucleated settlement of Twatt. The road and settlement are set above the south-west shoreline of the Loch of Boardhouse, such that an uninterrupted view opens up across the water to Hundland Hill, where the Proposed Development would be located and with Kirbuster Hill seen to the left and the broader extent of the moorland hills visible to the right. Most of the properties in this area are orientated eastwards to optimise the scenic views across the loch, and open views are experienced by road-users although their direction of travel is north and south along this section of the A967. This viewpoint is representative of the views of residents and road-users in this area.

6.12.68 The natural draw of the view is eastwards across the loch, which is enclosed by the surrounding coastal hills. While there is some evidence of moorland vegetation on Hundland Hill, and more extensively across the moorland hills to the south, the predominant landcover is improved pasture, with large open fields enclosed by post and wire fencing and some traditional stone dykes. Large farmsteads can also be seen dispersed across the farmland, as well as smaller scale rural properties. The six turbines of the Burgar Hill development can be seen set along the ridgeline of the moorland hills to the south of Hundland Hill and timber pole telephone lines across the hillside to the rear of the viewpoint.

Sensitivity

6.12.69 The value of this viewpoint is medium. There are no formal viewpoints in this area and the viewpoint and surrounding landscape are not covered by any landscape planning designations which would otherwise denote a special scenic value.

6.12.70 The susceptibility of residents is high, and the susceptibility of road-users is medium-high. Although many of the properties are orientated eastwards and the Proposed Development would be located to the north-east, it is possible that residents would still experience views of the proposed turbines from their properties as well as from their garden grounds and this, along with

the long duration of their views, would raise their susceptibility to the effects. The section of the A967 either side of the viewpoint, follows a north to south orientation such that the views of road-users would be at an oblique angle to the location of the Proposed Development. The openness of the landscape does, however, mean that clear views would still be experienced especially for north-bound road-users passing through Twatt.

6.12.71 The combination of the medium value and the high or medium-high susceptibility gives rise to an overall **medium-high** sensitivity.

Magnitude of change

6.12.72 The wireline in **Figure 6.26c** and photomontage in **Figure 6.26g** show that all four of the proposed turbines would be visible, seen set across the slopes of Hundland Hill at a minimum distance of 4.0 km. Of the four turbines, three would be seen to practically their full height, while the tower of the other turbine would be partly screened by the intervening landform of Hundland Hill. They would appear as large scale and dynamic structures, with the movement of the blades presenting a contrast in the context of this largely static landscape.

6.12.73 The magnitude of change during the operational phase would be **medium-high**. The proposed turbines would introduce four large, modern and moving structures into a view which would appear at variance with the strong horizontal emphasis presented by the Loch of Boardhouse and the low-lying and small scale of Hundland Hill. They turbines would also present a contrast with the small-scale and rural character of the landscape and although wind farm development is evident in the baseline view, the closer proximity and larger size of these turbines would ensure they form the defining feature in this view. The access track crossing the north-western slope and the substation located also in this area, would be visible from this viewpoint and although relatively small scale and ground level components, they would add to the overall effect. The rating is prevented from being high owing to the fact that the small number of turbines means they will occupy only a small proportion of a much wider view, and also that there is an existing influence from rural development and wind turbines, albeit all relatively small in scale.

6.12.74 The magnitude of change during the construction phase would also be **medium-high**. While some of the access tracks and the substation would be visible across the north-western slopes of Hundland Hill, it would be the presence and activity of the tall crane and the emerging structures of the wind turbines that would form the most prominent components during the construction phase. These would appear at variance with the relatively small-scale and rural character of Hundland Hill and dispersed settlement in the area.

Significance of effect

6.12.75 The effect of the Proposed Development during the construction and operational phases on the views of residents and road-users would be **major / moderate** and **significant**.

Viewpoint 9: A967, near Rosemire

Baseline

6.12.76 This viewpoint is located on the A967 next to the junction with the minor road to Dounby and to the immediate south-west of the Loch of Rosemire. This viewpoint is located in the Loch Basins LCT which is evident from the broad expanse of relatively low-lying and gently undulating landform that surrounds the viewpoint. Settlement comprises a dispersed pattern of farmsteads and other rural properties, albeit with some concentration along the A967. Road-users on this main road and other minor roads in the area, experience relatively expansive views owing to the open nature of the landscape. This viewpoint is representative of the views of residents and road-users in this area.

6.12.77 The view looks north-east across the loch basin and towards the coastal hills, the most prominent of which is Greeny Hill (152 m AOD) which forms a smooth and rounded profile in the right of the view. While there are some patches of moorland vegetation, the brighter green of the landcover, denotes the extent of improved pasture across this hillside. The more distant outlines of Hundland Hill, Costa Hill and Kirbuster Hill can be seen to the left of Greeny Hill, their already low-lying

landform further diminished by distance. While one of the Burgar Hill turbines is just visible to the right of Greeny Hill and the single turbine at Holodykes is visible to the east, the influence from wind farm development on this view is especially limited.

Sensitivity

6.12.78 The value of this viewpoint is medium. There are no formal viewpoints in this area and the viewpoint and surrounding landscape are not covered by any landscape planning designations which would otherwise denote a special scenic value.

6.12.79 The susceptibility of residents and road-users represented by this viewpoint is medium-high. The relatively flat and open landform of the loch basin means that there is no predominant orientation for properties in this area other than facing in toward the road if they are situated in such a location. This means that there is no strong draw towards Hundland Hill in the north-east where the Proposed Development would be located, although the potential for side windows, the openness of the landscape and the long duration of views, would raise the susceptibility of residents. In respect of the A967, the viewpoint is located on a long and straight, north-south orientated section, such that the Proposed Development would lie within the forward-facing view of north-bound road-users but not for south-bound road-users.

6.12.80 The combination of the medium value and the medium-high susceptibility gives rise to an overall **medium-high** sensitivity.

Magnitude of change

6.12.81 The wireline in **Figure 6.27c** and photomontage in **Figure 6.27g** show that all four of the proposed turbines would be visible, seen set across the western and eastern slopes of Hundland Hill and behind the lower slopes of Greeny Hill at a minimum distance of 6.3 km. Of the four turbines, two would be seen to practically their full extents, while the towers of the other two turbines would be partly screened by the intervening landform of Greeny Hill.

6.12.82 The magnitude of change during the operational phase would be **medium**. The very limited influence from operational wind farm development in this view would increase the magnitude of change as it would be seen as a contrasting feature relative to the largely undeveloped baseline context. Furthermore, the 180 m height of the turbines and the movement of their blades would appear at variance with the relatively low-lying landform and largely static nature of the landscape. They would also present a contrast with the rural and small-scale character of existing developments in the view. The magnitude of change would, however, be moderated by the relationship between the proposed turbines and Greeny Hill, whereby the more distant location of the turbines and closer range of Greeny Hill would present a scale comparison which would reduce the perceived scale of the turbines. Their scale would, however, also be accentuated by the less favourable comparison with the more distant coastal hills. There is also the fact that the small number of turbines means they would occupy only a small proportion of a much wider view, and also that there is an existing influence from rural development and wind turbines, albeit all relatively small in scale.

6.12.83 The magnitude of change during the construction phase would also be **medium**. Although the ground works would not form a prominent feature owing to their smaller scale, location 6.3 km from the viewpoint and screening by intervening landform, the tall crane and the emerging structures of the proposed turbines would form a readily apparent and prominent feature along the ridgeline.

Significance of effect

6.12.84 The effect of the Proposed Development on the views of residents and road-users in this area during the construction and operational phases would be **moderate** and **significant**.

Viewpoint 10: A967, near Queena

Baseline

6.12.85 This viewpoint sits on the south-west edge of the broad and low-lying area classified as Loch Basin LCT, which is characterised by large inland lochs and surrounded by shallow and gently undulating farmland. The viewpoint is located to the north of the staggered road junction between the main north to south road through the west of West Mainland A967 and the B9055 which links the Loch of Skaill, with the A965 near Stenness, passing over the isthmus which contains the Ring of Brodgar. Although the landform in this section is approximately 30 m, it is sufficient to present a fairly extensive view across the loch basins to the more distant coastal hills in the north of West Mainland.

6.12.86 A large farmstead and a couple of rural properties form a cluster close to this road junction, although with properties in this area not following any specific orientation. The A967 to the south of the junction forms a very straight south-west to north-east alignment and then curves through Queena to follow a straight south to north section. This viewpoint is representative of the views of residents in this rural area and road-users on the A967. The view illustrates the influence of the agricultural land uses, which creates an open and modified landscape comprising fields of improved pasture. Small nucleated and dispersed settlements can be seen across the loch basin landscape, and while a timber pole telephone line can be seen in the foreground, the influence from wind farm developments is limited with Burgar Hill at approximately 12.1 km, seen as a distant feature on the ridgeline of the moorland hills.

Sensitivity

6.12.87 The value of this viewpoint is medium-high. There are no formal viewpoints in this area and the viewpoint and view to the north is not covered by any landscape planning designations which would otherwise denote a special scenic value. The area to the south is however covered by the Hoy and West Mainland NSA and this more sensitive context raises the value from medium to medium-high

6.12.88 The susceptibility of residents and road-users represented by this viewpoint is medium-high. The relatively flat and open landform of the loch basin means that there is no predominant orientation for properties in this area other than facing in toward the road if they are situated in such a location. This means that there is no strong draw towards Hundland Hill in the north-east where the Proposed Development would be located, although the openness of the landscape and the long duration of views, would raise the susceptibility of residents. In respect of the A967, the north-easterly or northerly orientation of the sections to the south and north of the viewpoint, presents north-bound road-users with views broadly directed towards the Proposed Development. This raises the prominence of the Proposed Development in the views of road-users and their susceptibility to the effects.

6.12.89 The combination of the medium-high value and the medium-high susceptibility gives rise to an overall **medium-high** sensitivity.

Magnitude of change

6.12.90 The wireline in **Figure 6.28c** and photomontage in **Figure 6.28g** show that the four proposed turbines would be located a minimum of 10.9 km to the north-east. One of the turbines would be set behind Greeny Hill and seen as a small blade that would be largely indiscernible from this viewpoint. While these turbines would appear large in comparison with the more distant coastal hill and closer range Greeny Hill, it is their position relative to the lower slopes of Greeny Hill that reduces their perceived sense of scale.

6.12.91 The magnitude of change during the operational phase would be **medium-low**. While the proposed turbines would still appear large relative to the coastal and moorland hills with which they would be associated, the separation distance of 10.9 km would reduce their influence on this view. Furthermore, the fact that only three turbines would be readily visible and that they would occupy only a small proportion of a much wider view would further moderate their effect. Those factors which mean that they would still have some influence on the character of this view,

include their tall vertical forms and moving blades, which would still make them a readily apparent feature in this view, as well as the contrast they would present amidst a strongly rural and small-scale landscape, in which the baseline influence from operational wind farm developments is limited, albeit with some visibility of Burgar Hill arising behind the ridgeline.

6.12.92 The magnitude of change during the construction phase would also be **medium-low**. The ground works would not be readily visible owing to the separation distance of 10.9 km, the small scale of the works and the partial screening by landform. While the tall crane and the emerging turbines would form a readily visible feature, the separation distance combined with the small number of turbines, the compact layout and the existing influence from operational wind farms in this view, would mean that they would not become the defining feature in this view.

Significance of effect

6.12.93 The effect of the Proposed Development on the views of residents and road-users during the construction and operational phases would be **moderate** and **not significant**.

Viewpoint 11: Ring of Brodgar

Baseline

6.12.94 The Ring of Brodgar is a neolithic stone circle, dating back around 5,000 years. It is located on a narrow isthmus that separates Loch of Stenness to the west and Loch of Harray to the east. This viewpoint is located on a small burial mound on the southern side of the stone circle from which clear views can be gained in all directions. The viewpoint is representative of the views visitors will experience from this historic site.

6.12.95 The view is characterised by the presence of these 36 ancient stones, which form a strong focus in the foreground of the view. The setting is defined by the water surrounding both sides and which makes this narrow band of land unique in appearance. The broad extent of the loch basins means that views are fairly expansive and contained by the moorland hills to the east and south, and the coastal hills to the west. To the north, the gently undulating landform provides some enclosure with the coastal hills beyond seen as a distant feature. While patches of moorland vegetation occur across the hill tops, the predominant landcover is improved pasture, enclosed by a geometric pattern of fences or stone dykes and creating an open landscape with practically no tree cover. Settlement occurs as intermittent farmsteads and dispersed rural properties as well as some small, nucleated settlements visible along the eastern side of Loch of Harray. The influence of larger scale developments is limited to Burgar Hill Wind Farm at a minimum of 13.2 km to the north-east, which is partly concealed by the intervening landform and the masts on Keelylang Hill (221 m AOD) to the south-east.

Sensitivity

6.12.96 The value of this viewpoint is high. The viewpoint is located in the nationally designated Hoy and West Mainland National Scenic Area, which denotes the national scenic value of the landscape and the internationally designated Heart of Neolithic Orkney World Heritage Site, which denotes the international historic value.

6.12.97 The susceptibility of viewers at the Ring of Brodgar is medium-high. The attraction of this historic site is the ancient standing stones, and this is, first and foremost what visitors come to see. The surrounding landscape forms a setting to this historic site, with the immediate surroundings have a greater influence than the more distant and partially developed surroundings. While the location of the Proposed Development in the more distant surroundings, combined with the closer range human influences in the form of widespread settlement and farmland, masts and wind turbines, moderates the susceptibility of viewers, visitors will still have a heightened awareness of the overall setting to this site.

6.12.98 The combination of the high value and medium-high susceptibility gives rise to an overall **high** susceptibility.

Magnitude of change

6.12.99 The wireline in **Figure 6.29c** and photomontage in **Figure 6.29g** show that while all four of the turbines would be theoretically visible, one turbine would be barely discernible owing to the fact that it would be seen as a small tips behind intervening landform. Actual visibility would, therefore, comprise three turbines seen on the downslope and to the right of Greeny Hill, with the ridgeline screening the lower parts of the towers. The turbines would be seen a minimum of 13.6 km from the viewpoint.

6.12.100 The magnitude of change during the operational phase would be **medium-low**. The openness of the view and the importance of the ridgeline in forming enclosure to the wider loch basin landscape means that the Proposed development would form an apparent addition to the setting of this historic feature and the medium part of the rating relates to this. The low part of the rating would relate to a combination of the separation distance between the viewpoint and the proposed turbines which means they would appear as relatively distant features, they would be seen contained behind the intervening ridgeline which means they would appear as part of the more distant landscape, and with only three turbines readily visible, they would occupy only a small proportion of a much wider view. Furthermore, the proposed turbines would be seen in the same sector of the view as existing settlement and the existing Burgar Hill turbines, such that they would be adding to an existing influence, and although seen to be comparatively larger, there would be sufficient similarities in their appearance in terms of numbers, location on the ridgeline and general size, to moderate the additional effect.

6.12.101 The magnitude of change during the construction phase would also be **medium-low**. The ground works would not be readily visible owing to the separation distance of 13.6 km, the small scale of the works and the screening by landform. While the tall crane and the emerging turbines would form a readily visible feature, the separation distance combined with the small number of turbines, the compact layout and the existing influence from operational wind farms in this view, would mean that they would not become the defining feature in this view.

Significance of effect

6.12.102 The effect of the Proposed Development on visitors to the Ring of Brodgar during the construction and operational phases would be **moderate** and **not significant**.

Viewpoint 12: Vishall Hill

Baseline

6.12.103 Vishall Hill (91 m AOD) is a small hill on the north-east coast of the West Mainland. It is classified as being within the Isolated Coastal Knoll LCT and forms a high point on the prominent headland amidst the lower-lying Inclined Coastal Plain LCT that surrounds it and between Aiker Ness to the north and Ness of Woodwick to the east. The hill is farmed and there is no formal public access. There is a trig point at the top and the hill does offer extensive views both inland and out to sea. The viewpoint is representative of any walkers on this hill who may access it under their rights under the Land Reform (Scotland) Act 2016.

6.12.104 The viewpoint presents the contrasting aspects between enclosing hills and open seascapes and islands. To the north-east, the elevated landform of Rousay can be seen, with the smaller islands of Wyre and Gairsay visible to the east and Shapinsay to the south-east. On West Mainland, the enclosure of moorland hills extends from the south through to the west, to the north-west, while the rising landform of the coastal hills contain the view to the north. The moorland hills are characterised by their slightly larger form and darker moorland landcover. Hammars Hill Wind Farm can be seen in the view to the south-west and Burgar Hill Wind Farm to the north-west. Other human influences include the extent of settlement along the coastal edge and the modified nature of the landscape evident as fields of improved pasture and intermittent farmsteads.

Sensitivity

6.12.105 The value of this viewpoint is medium. The hilltop is not a recognised viewpoint and does not appear to be frequently used by walkers. The hill and the surrounding landscape are not covered by any landscape planning designations which would otherwise denote a special value.

6.12.106 The susceptibility of viewers to the effects of the Proposed Development is medium. Although walkers have a heightened awareness of their surroundings, the existing influence from wind farm development reduces their susceptibility to the Proposed Development by establishing this type of development as a feature of their baseline view. Both Burgar Hill and Hammars Hill wind farms are relatively close to the viewpoint and present prominent features owing to their location along the enclosing ridgeline. The extent of settlement visible and modified nature of the landscape also reduces the susceptibility of walkers to the effects of the Proposed Development, despite the relatively small scale of these rural developments.

6.12.107 The combination of the medium value of the viewpoint and view and the medium susceptibility of walkers gives rise to an overall **medium** sensitivity.

Magnitude of change

6.12.108 The wireline in **Figure 6.30c** and photomontage in **Figure 6.30g** show that all four turbines would be visible from a minimum distance of 7.9 km. The turbines would be screened by the intervening landform of Burgar Hill such they would only be seen as blades and tips. Furthermore, the proposed turbines would be seen set behind the closer range turbines of Burgar Hill, such that they would not increase the extent of wind farm development and appear to be part of this development, and by comparison would have less of an effect owing to the extent to which they are screened.

6.12.109 The magnitude of change during the operational phase would be **low**. The limited extent to which the proposed turbines would be visible combined with the existing influence from Burgar Hill and Hammars Hill wind farms would moderate the effect that the Proposed development would have on this view.

6.12.110 The magnitude of change during the construction phase would be **low**. Most of the construction works would be screened by the intervening landform such that only the tops of the tall crane and emerging turbines would be visible, and their effect would be moderated by the existing presence and influence of the more readily visible Hammars Hill and Burgar Hill wind farms.

Significance of effect

6.12.111 The effect of the Proposed Development on walkers on Vishall Hill during the construction and operational phases will be **minor** and **not significant**.

VP13: B9057 north-east of Dounby

Baseline

6.12.112 This viewpoint is located on the B9057 approximately 1 km to the north-east of the village of Dounby. The B9057 crosses the moorland hills and peat basin between Evie and Dounby and then the loch basins between Dounby and Loch of Skaill. The section of road where the viewpoint is located, lies along the southern side of the low-lying peat basin, with Greeny Hill (152 m AOD) to the left and Skelday Hill (155 m AOD) to the right, framing the view of the more distant and smaller Hundland Hill (106 m AOD) in the centre. The viewpoint is representative of the views of residents and road-users in this area.

6.12.113 The view is characterised by the low hills with their long ridgelines and gentle slopes. While the landcover comprises mostly fields of improved pasture, as indicated by the bright green colouring, there are also large patches of moorland vegetation occurring as patches across hilltops, as well as through the lower-lying peatland basin, as indicated by the dark brown colouring. Settlement is seen to occur fairly intermittently across this landscape with large farmsteads and other dispersed rural properties forming small clusters on the lower hillslopes. The influence of large-scale development on this view is limited, with some of the Burgar Hill turbines visible behind Mid Hill

to the north-east, and one small domestic turbine located to the east and a couple more to the west.

Sensitivity

6.12.114 The value of this view and viewpoint is medium. There are no formal viewpoints in the area and the viewpoint and view are not covered by any landscape planning designations which would otherwise denote a special scenic value.

6.12.115 The susceptibility of residents is high, and road-users is medium-high. While the properties in this area follow a variety of different orientations, many along this section of the B9057 have an open aspect towards the north, where the view opens out across the low-lying peat basin to the surrounding coastal hills where the Proposed Development would be located. This raises the susceptibility of residents as these views may be experienced over long periods of time. While the road does not align north towards the site, most sections align broadly north-east, such that the Proposed Development would occur within the forward views of north-bound road-users and this raises their susceptibility, despite the shorter duration of the views they are experiencing.

6.12.116 The combination of the medium value of the viewpoint and view and the high or medium-high susceptibility of residents and road-users gives rise to an overall **medium-high** sensitivity.

Magnitude of change

6.12.117 The wireline in **Figure 6.31c** and the photomontage **Figure 6.31g** show that all four turbines would be visible from this viewpoint, with two seen to practically their full heights, one seen to just below the hub and one as a blade. They would be seen set in the low part of the northern skyline, set between the higher landform of Greeny Hill to the left and Skelday Hill to the right. The two turbines seen to practically their full height would be seen set on Hundland Hill, while the two to the right would be partly screened by Skelday Hill. The turbines would be seen to the north at a minimum distance of 5.4 km.

6.12.118 The magnitude of change during the operational phase would be **medium-high**. Those factors that add to the magnitude of change include the contrast between the large scale of the proposed turbines and the small scale of Hundland Hill, on which they would sit, which would accentuate the large scale of the proposed turbines. At a minimum distance of 5.4 km, they would still be seen as large and dynamic structures and the relatively limited influence from other wind farm developments would make them appear more at variance with the baseline character. There would also be visibility of the access track, foundation and hard-standing associated with the southern most turbine on the southern side of Hundland Hill, and although small in scale and at ground level, these components would add to the overall effect.

6.12.119 The magnitude of change during the construction phase would also be **medium-high**. Although the ground works would not form a prominent feature owing to their smaller scale, location 5.4 km from the viewpoint and partial screening by intervening landform, the tall crane and the emerging structures of the proposed turbines would form a readily apparent and prominent feature along the ridgeline.

Significance of effect

6.12.120 The effect of the Proposed Development on the views of residents and road-users during the construction and operational phases would be **major / moderate** and **significant**.

VP14: Skara Brae

Baseline

6.12.121 Skara Brae is a stone-built neolithic settlement which was uncovered by a storm in 1850 and which presents a detailed insight into life on Orkney around 5,000 years ago. Skara Brae is a World Heritage Site, cared for by Historic Environment Scotland and attracting over 100,000 visitors a year. It is located on the west coast of West Mainland, on the southern side of the Bay of Skaill with views over the bay although wider views of the North Atlantic are contained by the enclosing coastal headlands to the north and south. The view is representative of the views of visitors to

Skara Brae and to historic Skaill House which is situated approximately 500 m to the south-east of the viewpoint.

6.12.122 The key feature of the view is the sunken settlement of Skara Brae, with its stone structures encased in the landform of the coastal dune. This historic site is seen against the backdrop of the Bay of Skaill, with its scallop shaped beach comprising light-coloured stones, and sands and the constant tides of the North Atlantic crashing upon the shoreline. In contrast, the hinterland presents a simpler and more static element in the view, with the gentle undulations of the coastal landform and the homogenous landcover of fields of improved pasture. The simplicity of the open landscape is, however, interrupted by the extent of dispersed settlement which denotes the settled, as well as cultivated nature of this modified landscape. Larger developments are not readily visible, and although Burgar Hill is theoretically visible, as shown in the wireline in Figure 6.32c, these blade tips are not readily visible. While the Skara Brae visitor centre presents a larger building close to Skara Brae, it has been designed sensitively in order to minimise its visual impact.

Sensitivity

6.12.123 The value of the viewpoint and the view is high. Although there are no formal viewpoints in the area, the viewpoint and the view are covered by the landscape planning designation of the Hoy and West Mainland NSA which denotes the national scenic value and the Heart of Neolithic Orkney WHS which denotes the international heritage value.

6.12.124 The susceptibility of visitors to the effects of the Proposed Development is medium-high. The attraction of this historic site is the neolithic settlement, and this is, first and foremost what visitors come to see. Visitors will also have a heightened awareness of their context, which in respect of Skara Brae, is characterised by the dramatic coastline and expansive North Atlantic. The Bay of Skaill to the north, forms the defining feature, in respect of which the more distant coastal hills form the background setting to the view. The landscape in this view, is a settled and cultivated landscape, such that human influences are widespread, albeit relatively small in scale and rural in character. The susceptibility of visitors is also accentuated by the very limited influence of other wind farm developments.

6.12.125 The combination of the high value of the viewpoint and the view, and the medium-high susceptibility of visitors to this site gives rise to an overall **high** sensitivity.

Magnitude of change

6.12.126 The wireline in **Figure 6.32c** and photomontage in **Figure 6.32g**, show that the Proposed Development would be theoretically visible to the north-east at a minimum of approximately 10.9 km. The Proposed Development would be screened by the landform of the intervening coastal hills such that only two blade tips would be visible above the skyline. These would be seen in the same sector as the two blades tips of operational Burgar Hill Wind Farm.

6.12.127 The magnitude of change on the views of visitors at Skara Brae during the operational phase would be **low**. The proposed turbines would form a small scale and distant feature that would not be readily apparent from this viewpoint. They would be seen set behind the enclosing ridgeline to the view such that they would be associated with the more distant rather than immediate landscape. They would also be seen in the same sector of the view as the operational Burgar Hill turbines, although of similarly limited visibility, and in a wider view in which the human influence of dispersed settlement is evident.

6.12.128 The magnitude of change during the construction phase would also be **low**. Most of the construction works would be screened by the intervening landform such that only the tops of the tall crane and emerging turbines would be visible, and their effect would be moderated by the existing presence and influence of operational Burgar Hill wind farm, albeit also of limited visibility.

Significance of effect

6.12.129 The effect of the Proposed Development on the views of visitors to Skara Brae during the construction and operational phase would be **moderate / minor** and **not significant**.

VP15: Vestra Fiold

Baseline

6.12.130 Vestra Fiold (129 m AOD) forms a high point in the low coastal hills on the west coast of West Mainland. The western slopes of the hill meet with the cliffs that form the west coast and here there is some sense of remoteness albeit with the human influence of farmed fields readily evident right up to the coast. The eastern slopes of the hill meet with the B9056 and while in the elevated section adjacent to Vestra Fiold, settlement comprises intermittent farmsteads, there is much more clustering of rural properties in the lower-lying landform to the north and south. The viewpoint is taken from the farm track that cuts east to west over the hill, while at the summit there is a trig point and a number of historic cairns. This viewpoint is representative of walkers on the hill, as well as road-users and residents in the local area.

6.12.131 The view looks north-east across the low hill of Yonbell, beyond which there is the broader expanse of the loch basins landscape. The relative flatness and openness of this landscape means that views extend all the way from Vestra Fiold on the west coast to the coastal hills in the north-east of West Mainland, which include Hundland Hill, upon which the Proposed Development would be situated. Kirbuster Hill can be seen to the left, Loch of Hundland to the fore and the wider ridgeline of the moorland hills extending to the right, made distinct by the patches of brown moorland vegetation across their tops. The predominant land cover across this view, is improved pasture, set out in a rectilinear pattern of fields with fenced or stone dyked enclosures. Settlement is also evident, occurring mostly in a dispersed pattern, albeit with some clustering occurring in lower-lying parts. In terms of larger developments, Burgar Hill Wind Farm can be seen on the northern edge of the moorland hills, albeit relatively small in scale and distant.

Sensitivity

6.12.132 The value of the viewpoint and view is medium. There are no formal viewpoints in this area although the hilltop does present a natural viewpoint, and there are no landscape planning designations covering the viewpoint and view towards the site, although the Hoy and West Mainland NSA covers the landscape further to the south.

6.12.133 The susceptibility of walkers and road-users to the effects of the Proposed Development is medium-high and the susceptibility of residents is high. The openness of the landscape and the elevated nature of Vestra Fiold means that all visual receptors are experiencing open and exposed views of the wider landscape. While the orientation of the farmsteads and rural properties is varied and intervening landform could restrict open views, there is the potential that residents in more elevated and exposed properties could experience clear views towards the site and their susceptibility is raised by the fact that these views could be over long periods of time. The B9056 follows a general north-south alignment, such that there would be no direct views towards the site, although for north-bound road-users it would be visible in their forward vision from the more elevated sections of the route, and this would raise their susceptibility. It would, however, be walkers on Vestra Fiold that would experience the most open and clear views toward the site and their susceptibility would be raised by their heightened awareness of their surroundings.

6.12.134 The medium value of the viewpoint and view combined with the high or medium-high susceptibility of visual receptors gives rise to an overall **medium-high** sensitivity.

Magnitude of change

6.12.135 The wireline in **Figure 6.33c** and photomontage in **Figure 6.33g**, show that all four turbines would be visible to the north-east of the hill at a minimum distance of 7.6 km. They would be seen set over Hundland Hill, with three seen to practically their full height, and the tower of the remaining turbine partially concealed by the intervening landform of the hill.

6.12.136 The magnitude of change during the operational phase would be **medium**. Those factors which would moderate the effect would include the small number of turbines and their contained horizontal extents which would occupy only a small proportion of the much wider view, as well as the separation distance which would go some way in reducing the perceived scale of the proposed turbines. Furthermore, the existing influence of the Burgar Hill turbines in this same sector of the

view would ensure that the proposed turbines would not be seen as a new feature, and the extent of settlement and cultivation evident in the view ensures that human influences are already an established part of the baseline character.

6.12.137 Those factors which would add to the magnitude of change include the fact that despite the separation distance, the proposed turbines would still appear relatively large owing to scale comparisons with the low landform of Hundland Hill and the operational Burgar Hill turbines on the moorland hills to the south. In the context of a landscape where there is a strong horizontal emphasis, these tall, vertical and dynamic structures would form a notable addition. There would also be visibility of the access track, foundations and hard-standings associated with the three turbines located to the fore of the Hundland Hill ridge, and although small in scale and at ground level, these components would add to the overall effect.

6.12.138 The magnitude of change during the construction phase would also be **medium**. Although the ground works would not form a prominent feature owing to their smaller scale, location 7.6 km from the viewpoint and partial screening by intervening landform, they would, nonetheless add to the overall effect. It would, however, be the tall crane and the emerging structures of the proposed turbines that would form a readily apparent and prominent feature along the ridgeline.

Significance of effect

6.12.139 The effect of the Proposed Development on the views of residents, road-users and walkers in this area during the construction and operational phase would be **moderate** and **significant**.

VP16: A966 west of Abune the Hill

Baseline

6.12.140 This viewpoint is located on the A966 which it the main road along the north coast of West Mainland. It is located at the junction to Queena Farm, which forms one of the few informal stopping points along the road. The elevated and open nature of this section of the A966 means that expansive views occur in almost all directions, with views over the coastal hills to the east, west and south, and glimpses of the North Atlantic and Brough of Birsay seen over the low coastal hills to the north. This viewpoint is representative of the views of east-bound road-users on the A966 as well as rural residents in this area.

6.12.141 The view looks south-east over the falling landform named on the OS map as 'Abune the Hill'. The view opens up across the loch basin of the Loch of Kirbuster, behind which the low and rounded landform of Hundland Hill is readily visible. Other hills of note include Costa Hill visible in the far left, With the moorland hills of Rousay visible to the right of this, and then the moorland hills of Burgar Hill and Mid Hill visible to the rear of Hundland Hill. While the predominant landcover across this landscape is improved pasture set out in rectilinear fields enclosed by fencing and stone dykes, there are also patches of moorland vegetation on parts of the higher hills. The settled nature of this landscape is also readily evident in the form of farmsteads spaced intermittently across the lower hill slopes, many appearing large owing to the complex of large sheds they comprise and the exposed character of the landscape. Larger scale development is also evident with the six Burgar Hill turbines set on the northern edge of the moorland hills to the rear of the site.

Sensitivity

6.12.142 The value of this viewpoint is medium-high. While there are no formal viewpoints in the area, and the viewpoint and surrounding landscape are not covered by any landscape planning designations which would otherwise denote a special value, the northern section of the A966 coincides with National Cycle Route 1 (NCR 1).

6.12.143 The susceptibility of residents and road-users would be high or medium-high. While the elevation and orientation of the B966 is variable along this north coast section, there are enough elevated sections from which clear views of the site would be readily visible and for east-bound road-users the proposed turbines would form a readily visible feature in their forward-facing views. This would give rise to a medium-high susceptibility despite the transitory nature of their views

experienced at speeds of 40 to 50 mph. While the elevation and orientation of the farmsteads and rural properties is varied, the openness of the landscape and proximity of these properties to the Proposed Development, means that it is likely that many residents would experience some form of visibility from their properties and/or garden grounds. The longer duration of the views experienced by residents would give rise to a high susceptibility.

6.12.144 The medium-high value of the viewpoint and view combined with the high or medium-high susceptibility of residents and road-users gives rise to an overall **medium-high** sensitivity.

Magnitude of change

6.12.145 The wireline in **Figure 6.34c** and photomontage in **Figure 6.34g**, show that all four turbines would be readily visible, with the closest seen to its full extents and the towers of the remaining three partly concealed by the intervening landform of Hundland Hill. At a minimum distance of 2.7 km, the 180 m tall turbines would appear large in scale and the movement of the blades would appear to be in contrast with this otherwise largely static landscape. The openness across these coastal hills means that residents and road-users would experience visibility of the Proposed Development, albeit with screening of the full extents of the proposed turbines from lower elevated parts.

6.12.146 The magnitude of change during the operational phase would be **medium-high**. The close proximity of the viewpoint to the turbines means that they would appear as large scale and dynamic structures, with their large scale accentuated through comparison with the low Hundland Hill on which they sit, and the smaller Burgar Hill Wind Farm turbines seen to the rear. While human influences are evident in the baseline view, most notably in the form of the operational wind farm and large farmsteads, the large scale of the proposed turbines would form a newly defining feature. The exposed nature of the north-western hillside would also mean that the track crossing the north-western slopes would be readily visible, along with the substation building located close to the junction between Hundland Road and minor road to Nisthouse Farm, and the foundations and hard-standings associated with the northern turbine. These components would add to the overall effect by appearing at variance with the simple landform and landcover of the hill, despite their relatively small scale and ground level location.

6.12.147 The magnitude of change during the construction phase would also be **medium-high**. The openness of the view and the exposed nature of Hundland Hill would mean that most of the ground level construction works, including track, hard-standing and foundation construction would be readily visible, as well as the substation and construction compound located on this north-western side of the hill. The more prominent presence of the tall crane used in construction and the emerging proposed turbines.

Significance of effect

6.12.148 The effect of the Proposed Development on the views of residents and road-users during the construction and operational phases would be **major/moderate** and **significant**.

Viewpoint 17: Westside, Rousay

Baseline

6.12.149 Rousay is an island set off the north-east coast of West Mainland, separated by the narrow waters of Eynhallow Sound. Rousay is one of the more elevated islands in the Orkney archipelago, characterised by a core of moorland hills. The viewpoint is located on the B9064, at a slightly elevated section above Westness Farm, from where open views are experienced across the sound to the West Mainland coast. The Rousay Heritage Walk extends north from this area to take in a series of neolithic chambered cairns and other historical features found along this coastal route. The viewpoint is representative of the views of walkers on the Heritage Walk, as well as residents in rural properties along this coastal edge and road-users on the minor coastal road.

6.12.150 The view looks west-south-west across the Rousay coast and Eynhallow Sound to the coastal edge of West Mainland. Although not especially high, the coastal and moorland hills, from Costa Hill through Vinquin Hill to Burgar Hill, form a well-defined edge to the coast. The settled and

cultivated nature of West Mainland is evident in the extent of dispersed and clustered settlement along this coastal edge, mostly associated with the A966, as well as the extent of improved pasture as the predominant landcover, with only patches of moorland vegetation on the higher tops. Wind farm development is another feature characterising this coastal landscape with all six Burgar Hill turbines visible to the south-west at approximately 4.9 km, and five Hammars Hill turbines visible to the south at approximately 6.2 km. These features on West Mainland form a prominent focus owing to the fact that the south-west coast of Rousay faces the north-east coast of West Mainland and this forms a strong visual association between the two.

Sensitivity

6.12.151 The value of this viewpoint and view is medium. There are no formal viewpoints in the area, and the viewpoint and the view are not covered by any landscape planning designations which would otherwise denote a special scenic value.

6.12.152 The susceptibility of walkers and road-users to the effects of the Proposed Development is medium-high. The openness of the landscape and the association between the Rousay coast and the West Mainland coast means that all visual receptors are experiencing open and exposed views across the Eynhallow Sound. While there are only few farmsteads and rural properties along this coastline, those that do occur are typically orientated across the sound and to West Mainland and this along with the longer duration of their views, raises the susceptibility of residents. The minor coastal road follows a general south-east to north-west alignment, such that there would be no direct views towards the site, although perpendicular views would be experienced by road-users in both directions, and the openness of this coastal edge combined with the relatively slow speed along this road would raise the susceptibility of road-users, despite views being over a shorter duration. The susceptibility of walkers on the Heritage Walk would also be increased by the experience of open and clear views toward the site, as well as their heightened awareness of their surroundings.

6.12.153 The medium value of the viewpoint and view combined with the medium-high susceptibility of visual receptors gives rise to an overall **medium-high** sensitivity.

Magnitude of change

6.12.154 The wireline in **Figure 6.35c** and photomontage in **Figure 6.35g**, show that all four turbines would be visible to the west-south-west of the viewpoint at a minimum distance of 7.0 km. They would be seen set behind the low intervening landform of Vinquin Hill, such that the towers of all four would be concealed and only hubs and blades or blades would be visible. They would be seen in the same sector, and to the right of the operational Burgar Hill Wind Farm and along the same coastal edge as the Hammars Hill turbines, albeit further to the north.

6.12.155 The magnitude of change during the operational phase would be **medium**. Those factors which would moderate the effect would include the extent to which the intervening landform would screen the visible extents of the proposed turbines, such that their full scale would not be appreciated, a factor also reduced to some extent by the separation distance of 7.0 km. The small number of turbines would mean that they would present a contained horizontal extent which would occupy only a small proportion of the much wider view. Furthermore, the existing influence of the Burgar Hill turbines in this same sector of the view would ensure that the proposed turbines would not be seen as a new feature, and the extent of settlement and cultivation evident along the coast ensures that human influences are already an established part of the baseline character.

6.12.156 Those factors which would add to the magnitude of change include the fact that despite the separation distance, the proposed turbines would still appear relatively large owing to scale comparisons with the low landform of Vinquin Hill and the operational Burgar Hill turbines on the moorland hills to the south. In the context of a landscape where there is a strong horizontal emphasis, and a strong association between these facing coastlines these large and dynamic structures will form a notable addition.

6.12.157 The magnitude of change during the construction phase would also be **medium**. Most of the construction works would be screened by the intervening landform such that only the tops of the tall crane and emerging turbines would be visible, and while their effect would be moderated by

the existing presence and influence of operational Burgar Hill and Hammars Hill wind farms, their apparent larger scale would increase the magnitude of change.

Significance of effect

6.12.158 The effect of the Proposed Development on the walkers, residents and road-users in this area during the construction and operational phases would be **moderate** and **significant**.

Viewpoint 18: Hillock Road, Shapinsay

Baseline

6.12.159 Shapinsay is an island set to the east of West Mainland and the north of East Mainland. It is characterised by its distinctive ridgeline which follows a broadly north-east to south-west alignment across the island and which is delineated by the route of the B9058. Minor roads and access tracks extend off this following a predominantly geometric alignment, with the field pattern, which infills this framework also conforming to the geometric layout. Other than the woodland at Balfour Castle, this island is largely bare of tree cover, with low and exposed landform, and settlement occurring as intermittent farmsteads or other properties. The predominant land use is improved pasture and there is a single turbine along the south coast. The viewpoint is located towards the northern end of the B9058 and is representative of the views of residents and road-users on this island.

6.12.160 From this northern part of Shapinsay, views are drawn out across the surrounding seascape to the islands of Eday, Faray, Gairsay, Egilsay, Wyre and Rousay. The view looks north-west across the inclined pastures of Shapinsay and waters of the Gairsay Sound to the north-east coast of West Mainland. From this range of over 20 km, the detail of the landscape on West Mainland is not readily evident although Hammars Hill and Burgar Hill wind farms do form a readily visible and recognisable feature along this coastal edge. The character of the view is rural owing to the predominance of agricultural land and dispersed settlement across Shapinsay, although there is the influence from a number of small-scale domestic turbines on the island.

Sensitivity

6.12.161 The value of this viewpoint and view is medium. There are no formal viewpoints in the area, and the viewpoint and the view are not covered by any landscape planning designations which would otherwise denote a special scenic value.

6.12.162 The susceptibility of road-users and residents to the effects of the Proposed Development is medium-high. The openness of the landscape means that all visual receptors are experiencing open and exposed views of the wider landscape, and although there is no strong association between the north-west coast of Shapinsay and the north-east coast of West Mainland, and while there are few farmsteads and rural properties in this area, those that do occur are typically orientated north-west across the Gairsay Sound to West Mainland and this, along with the longer duration of their views, raises the susceptibility of residents. The B9058 follows a general south-west to north-east alignment, such that there would be no direct views towards the site, although perpendicular views would be experienced by road-users in both directions, and the openness of this coastal edge combined with the relatively slow speed along this road would raise their susceptibility, despite views being over a shorter duration. Furthermore, access roads are typically aligned north-west towards the site.

6.12.163 The medium value of the viewpoint and view combined with the medium-high susceptibility of visual receptors gives rise to an overall **medium-high** sensitivity.

Magnitude of change

6.12.164 The wireline in **Figure 6.36c** and photomontage in **Figure 6.36g**, show that all four turbines would be visible to the north-west of the viewpoint at a minimum distance of 23.3 km. They would be seen set behind the low intervening landform of the coastal and moorland hills, such that they would be visible as three blades and one blade with hub. They would be seen to the rear of the

operational Burgar hill turbines, and to the right of the Hammars Hill turbines, all seen associated with the same coastal edge of West Mainland.

6.12.165 The magnitude of change during the operational phase would be **low**. Those factors which would moderate the effect would include the extent to which the intervening landform would screen the visible extents of the proposed turbines, such that their full scale would not be appreciated, a factor also reduced by the separation distance of 23.3 km which means the turbines would be seen as small scale and distant elements. The small number of turbines would mean that they would present a contained horizontal extent which would occupy only a small proportion of the much wider view. Furthermore, the existing influence of the Burgar Hill turbines seen to the fore, would ensure that the proposed turbines would not be seen as a new feature, and instead be seen as an extension to this operational wind farm.

6.12.166 The magnitude of change during the construction phase would be **low**. Most of the construction works would be screened by the intervening landform such that only the tops of the tall crane and emerging turbines would be visible, and their effect would be moderated by the existing presence and influence of the more readily visible Hammars Hill and Burgar Hill wind farms.

Significance of effect

6.12.167 The effect of the Proposed Development on the walkers, residents and road-users in this area during the construction and operational phase would be **moderate** / **minor** and **not significant**.

Viewpoint 19: Ward Hill, Hoy

Baseline

6.12.168 At 479 m AOD, Ward Hill is the highest hill on Hoy and the highest hill on the Orkney Islands. It is situated in the north-east of Hoy in an upland landscape classified as Rugged Hills LCT. Ward Hill has a distinctive profile with steep sides and a rounded top. It is well defined within its seascape and landscape context owing to the contrast with the low-lying coastal edge to the north-east, the U-shaped valley which wraps around the eastern and southern sides, and the Glens of Kinnaird which separate Ward Hill from Cuilags (433 m AOD), from the north-west to south-west. Ward Hill forms a dramatic landform feature in the iconic skyline of Hoy, especially when viewed from the islands to the east, and West Mainland to the north.

6.12.169 This viewpoint is representative of the views of walkers on this hill. Ward Hill can be accessed from any aspect, although all routes ascend very steep slopes and with routes from the north-east ascending over rocky crags. The broad ridgeline, which caps the steep slopes, curves round to enclose a broad convex bowl below. From the summit, expansive views extend in all directions, northwards towards West Mainland, eastwards across Scapa Flow, westwards across the western part of the Rugged Hills LCT and southwards across the Moorland Hills LCT of Hoy.

6.12.170 The view towards the site extends north-north-east across the north coast of Hoy and the extensive Loch Basin LCT of West Mainland to the low coastal hills where the site is located, and which mark the northern coast of this island. This sector of the view is characterised by the contrasting large inland lochs that can be seen to occupy much of the southern part of West Mainland, as well as the moorland hills which form the eastern coastal edge and the lower coastal hills which form the western coastal edge. While the wireline in **Figure 6.37c** shows that the Burgar Hill and Hammars Hill wind farms are theoretically visible from Ward Hill, in actual visibility they are small and distant features that are subservient to the characteristics of other landscape features. A more notable influence comes from the town of Stromness which is readily apparent on the southern coast of West Mainland, and which denotes the settled nature of this island.

Sensitivity

6.12.171 The value of the viewpoint and the view is high. Although not marked as a formal viewpoint on OS maps, Ward hill presents a natural, albeit informal viewpoint from which walkers can appreciate the panoramic view. The viewpoint and much of the view are also covered by the landscape planning designation of the Hoy and West Mainland NSA which denotes the national value scenic value of this area.

6.12.172 The susceptibility of walkers to the effects of the Proposed Development is medium-high. There are no paths or signposts, and the route does not lead to any other visitor attractions. Ward Hill presents a steep ascent, and while this will deter many walkers from attempting this hill climb, for those that do, an appreciation of the panoramic views from the summit will be part of the incentive. Walkers can often be more aware than other visual receptors of their surroundings and often take time to enjoy the views. The susceptibility of walkers is, however, moderated by the fact that the site lies more than 23 km from the viewpoint and there is already the influence of other developments in this view with the town of Stromness and operational wind farm developments.

6.12.173 The combination of the high value of the viewpoint and view and medium-high susceptibility of walkers gives rise to an overall **high** sensitivity.

Magnitude of change

6.12.174 The wireline in **Figure 6.37c** and photomontage in **Figure 6.37g** show that all four turbines would be visible to the north-north-east of the viewpoint at a minimum distance of 25.8 km. The elevation of the viewpoint means that all four turbines would be seen practically to their full extents, albeit with some screening of the lower parts of the towers from intervening Greeny Hill. They would be seen associated with the lower coastal hills to the right of the slightly higher moorland hills where Burgar Hill and Hammars Hill wind farms are visible.

6.12.175 The magnitude of change during the operational phase would be **low**. Those factors which would moderate the effect would include the extent to which the minimum distance of 23.3 km would reduce the perceived scale of the proposed turbines, with then seen as small scale and distant elements. The small number of turbines would mean that they would present a contained horizontal extent which would occupy only a small proportion of the much wider view, within which more attractive features include views over Hoy and across Scapa Flow. Furthermore, the existing influence of settlement within the intervening coastal landscape as well as the Burgar Hill turbines seen to the right, would ensure that the proposed turbines would not be seen as a new feature in this sector of the view.

6.12.176 The magnitude of change during the construction phase would also be **low**. This assessment relates to the fact that the construction works would be located at a minimum distance of 23.3 km such that the smaller-scale ground level works would not be readily visible and the larger-scale construction of the four turbines using a tall crane would be visible but would form a small and distant feature occupying only a small proportion of a wider view. Furthermore, their effect would be moderated by the existing presence and influence of operational Burgar Hill and Hammars Hill wind farms, also readily visible in this view.

Significance of effect

6.12.177 The effect of the Proposed Development on the walkers in this area during the construction and operational phases would be **moderate / minor** and **not significant**.

Assessment of Effects on Principal Visual Receptors

Introduction

6.12.178 The second part of the assessment of effects on views is the assessment of the effects that the Proposed Development would have on the views from principal visual receptors. The principal visual receptors considered in the assessment include settlements and route corridors, which are shown in conjunction with the ZTV in **Figure 6.10** and on the composite plan in **Figure 6.11**. The principal visual receptors assessed have been selected as they have potential to undergo significant effects as a result of the Proposed Development. A preliminary assessment to identify these receptors has been carried out through the use of ZTVs and wirelines to indicate the extents, level and nature of theoretical visibility, and site work to determine the extents, level and nature of actual visibility. This process has identified the following principal visual receptors as requiring detailed assessment;

- A966;
- A967;
- B9057;
- Swannay;
- Vinquin Hill;
- Kirbuster;
- Birsay; and
- Twatt.

All of these principal visual receptors have been assessed previously in this section 6.12, through the assessment of the representative viewpoints. The assessment of the principal visual receptors, presented below, therefore, refers to the findings of the relevant representative viewpoint assessments.

A966

6.12.179 The A966 has been assessed through the following representative viewpoints;

- Viewpoint 1: A966, Loch of Swannay;
- Viewpoint 2: A966, Hundland Road junction; and
- Viewpoint 16: A966, west of Abune the Hill.

6.12.180 Viewpoints 1 and 2 were assessed as having a high sensitivity and undergoing a high magnitude of change to result in a significant effect at a major level. Viewpoint 16 was assessed as having a medium-high sensitivity and undergoing a medium-high magnitude of change to result in a significant effect at a major / moderate level.

6.12.181 **Figure 6.10** presents the Principal Visual Receptors in conjunction with the ZTV and shows that theoretical visibility of the Proposed Development extends from the eastern side of Loch of Swannay to west of Abune-the-Hill, making the three viewpoints representative of this section where visibility would arise. The assessments of these viewpoints, therefore, apply to the assessment of this northern section of the A966, with a **medium-high** sensitivity, **medium-high** magnitude of change and a **significant** effect at a **major / moderate** level occurring in the western part, and a **high** sensitivity, **high** magnitude of change and a **significant** effect at a **major** level occurring in the central and eastern parts. The significant effects would occur within an approximate 2 to 3 km radius of the Proposed Development.

A967

6.12.182 The A967 has been assessed through the following representative viewpoints;

- Viewpoint 7: A967, Birsay Community Hall;
- Viewpoint 8: A967, Twatt;
- Viewpoint 9: A967, near Rosemire; and
- Viewpoint 10: A967, near Queena.

6.12.183 Viewpoints 7 and 8 were assessed as having a medium-high sensitivity and undergoing a medium-high magnitude of change to result in a significant effect at a major / moderate level. Viewpoint 9 was assessed as having a medium-high sensitivity and undergoing a medium magnitude of change to result in a significant effect at a moderate level, while Viewpoint 10 was assessed as having a medium-high sensitivity and undergoing a medium-low magnitude of change to result in a not significant effect at a moderate level.

6.12.184 The ZTV in **Figure 6.10** shows that theoretical visibility of the Proposed Development extends from the junction with the A966 at Birsay in the north to the end of the road in Stromness in the south, albeit with practically continuous visibility in the northern part as far as Queena and then more intermittent visibility south of this. The four viewpoints are well spaced along the section of continuous visibility and, therefore, form a good representation of the potential effects of this section of the A967.

6.12.185 The assessments of these viewpoints apply to the assessment of these northern and central section of the A967, with a **medium-high** sensitivity, **medium-high** magnitude of change and a **significant** effect at a **major / moderate** level occurring in the northern part, a **medium-high** sensitivity, **medium** magnitude of change and a **significant** effect at a **moderate** level occurring in the north central part, and a **medium-high** sensitivity, **medium-low** magnitude of change and a **not significant** effect at a **moderate** level occurring in the south central part.

6.12.186 From site work and review of wirelines, it has been assessed that the transition between the significant and not significant effect would occur to the south of Viewpoint 9: A967, near Rosemire at a range of approximately 7 km from the Proposed Development.

B9057

6.12.187 The A967 has been assessed through the following representative viewpoints;

- Viewpoint 13: B9057, north-east of Dounby; and
- Viewpoint 10: A967, Queena.

6.12.188 Viewpoint 13 was assessed as having a medium-high sensitivity and undergoing a medium-high magnitude of change to result in a significant effect at a major / moderate level, while Viewpoint 10 was assessed as having a medium-high sensitivity and undergoing a medium-low magnitude of change to result in a not significant effect at a moderate level.

6.12.189 The ZTV in **Figure 6.10** shows that theoretical visibility of the Proposed Development is intermittent in extents along this road owing to the screening effect of Mid Hill and Greeny Hill to the north. There is, however, a patch shown to the north-east of Dounby, where Viewpoint 13 is located and another patch around Queena to the south-west, where Viewpoint 10 is located. The location of the two viewpoints in these two main patches of visibility, therefore, form a good representation of the potential effects on these parts of the B9057.

6.12.190 The assessments of these viewpoints apply to the assessment of these parts of the B9057, with a **medium-high** sensitivity, **medium-high** magnitude of change and a **significant** effect at a **major / moderate** level occurring in the part to the north-east of Dounby, a **medium-high** sensitivity, **medium-low** magnitude of change and a **not significant** effect at a moderate level occurring in the part around Queena. The significant effects would occur within an approximate 5 to 6 km radius of the Proposed Development.

Swannay

6.12.191 Settlement at Swannay has been assessed through the following representative viewpoints;

- Viewpoint 1: A966, Loch of Swannay; and
- Viewpoint 2: A966, Hundland Road junction.

6.12.192 Viewpoints 1 and 2 were assessed as having a high sensitivity and undergoing a high magnitude of change to result in a significant effect at a major level. Viewpoint 16 was assessed as having a medium-high sensitivity and undergoing a medium-high magnitude of change to result in a significant effect at a major / moderate level.

6.12.193 The ZTV in **Figure 6.10** shows that theoretical visibility of the Proposed Development is continuous across the rural properties located around the north of Loch of Swannay and Loch of Hundland. The assessments of these viewpoints, therefore, apply to the assessment of this area of settlement, with a **high** sensitivity, **high** magnitude of change and a **significant** effect at a **major** level occurring. The significant effect would occur within a radius of approximately 2 km to 2.5 km.

Vinquin Hill

6.12.194 Settlement at Vinquin Hill has been assessed through the following representative viewpoint;

- Viewpoint 3: Vinquin Hill.

6.12.195 Viewpoint 3 has been assessed as having a **medium-high** sensitivity and undergoing a **high** magnitude of change to result in a significant effect at a **major** level. The ZTV in **Figure 6.10** shows that theoretical visibility of the Proposed Development is continuous across the rural properties located in and around Vinquin Hill. This assessment, therefore, applies to settlement at Vinquin Hill.

Kirbuster

6.12.196 Settlement at Kirbuster has been assessed through the following representative viewpoint;

- Viewpoint 5: Kirbuster, Loch of Hundland.

6.12.197 Viewpoint 5 was assessed as having a **medium-high** sensitivity and undergoing a **high** magnitude of change to result in a significant effect at a **major** level. The ZTV in **Figure 6.10** shows that theoretical visibility of the Proposed Development is continuous across the rural properties located in and around Kirbuster. This assessment, therefore, applies to settlement at Kirbuster.

Birsay

6.12.198 Settlement at Birsay has been assessed through the following representative viewpoints;

- Viewpoint 6: Brough of Birsay; and
- Viewpoint 7: A96, Birsay Community Hall.

6.12.199 Viewpoint 6 was assessed as having a **medium-high** sensitivity and undergoing a **medium** magnitude of change to result in a **significant** effect at a **moderate** level, while Viewpoint 7 was assessed as having a **medium-high** sensitivity and undergoing a **medium-high** magnitude of change to result in a **significant** effect at a **major / moderate** level. The ZTV in **Figure 6.10** shows that theoretical visibility of the Proposed Development is almost continuous across the rural properties located in and around Birsay, albeit with some patches of lower visibility around the Northside area. This assessment, therefore, applies generally to settlement at Birsay with a major / moderate level of significance occurring next to Loch of Boardhouse and a moderate level of significance occurring to the north.

Twatt

6.12.200 Settlement at Twatt has been assessed through the following representative viewpoint;

- Viewpoint 8: A967, Twatt.

6.12.201 Viewpoint 8 was assessed as having a **medium-high** sensitivity and undergoing a **medium-high** magnitude of change to result in a **significant** effect at a **major / moderate** level. The ZTV in **Figure 6.10** shows that theoretical visibility of the Proposed Development is continuous across the rural properties located in and around Twatt. This assessment, therefore, applies to settlement at Twatt.

Summary of Assessment on Visual Receptors

6.12.202 The assessment of the effects of the Proposed Development has found that significant effects would arise during the construction and operational phases at 13 of the 19 viewpoints. The viewpoints significantly affected during the construction and operational phases all lie within a 7 km radius of the Proposed Development and include;

- VP1: A966, Loch of Swannay;
- VP2: A966, Hundland Road junction;
- VP3: Vinquin Hill, Costa;

- VP4: Mid Hill;
- VP5: Kirbuster, Loch of Hundland;
- VP6: Brough of Birsay;
- VP7: A967, Birsay Community Hall;
- VP8: A967, Twatt;
- VP9: A967, near Rosemire;
- VP13: B9057 north-west of Dounby;
- VP15: Vestra Fiold;
- VP16: A966 west of Abune the Hill; and
- VP17: Westside, Rousay.

6.12.203 There would also be significant effects on those principal visual receptors which coincide with a number of the representative viewpoints, including the northern section of the A966, the northern and central sections of the A967, the section of the B9057 to the north-east of Dounby and the rural settlements associated with Swannay, Vinquin Hill, Kirbuster. Birsay and Twatt. These significant effects would extend to cover a radius of 7 km from the Proposed Development.

6.13 Cumulative Assessment

6.13.1 Cumulative effects refer to effects upon receptors arising from the Proposed Development, when considered alongside other proposed developments and activities and any other reasonably foreseeable projects or proposals. GLVIA3 (Landscape Institute and IEMA, 2013, p120) defines cumulative landscape and visual effects as those that *'result from additional changes to the landscape and visual amenity caused by the proposed development in conjunction with other developments (associated with or separate to it), or actions that occurred in the past, present or are likely to occur in the foreseeable future'*.

6.13.2 All operational and under construction wind farms have been included as part of the baseline situation in the main assessment. The cumulative effect of the Offshore Development in conjunction with the operational and under construction wind farms and other large-scale energy developments is assessed in more detail in this section.

Methodology for the Cumulative Assessment

6.13.3 The methodology used in the assessment of cumulative effects differs in some respects from that used in the rest of the assessment. The full methodology for the cumulative assessment is described in **Appendix 6.1**.

6.13.4 It is important to note that the objective of the cumulative assessment is different from the assessment of effects of the Proposed Development as carried out previously in this chapter; here, the intention is to establish whether or not the addition of the Proposed Development, in combination with other relevant existing and proposed wind farms, may lead to a landscape character or view where wind farm developments become a prevailing characteristic as a result of the addition of the Proposed Development, albeit that they may become one of a number of prevailing characteristics.

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

Wind Farm sites Included in the Cumulative Assessment

6.13.6 Cumulative sites that lie within a 45 km radius of the Proposed Development have been listed in Table 6.5 and their locations shown in **Figure 6.9**.

6.13.7 Cumulative ZTVs that show the visibility of the cumulative site, or group of sites, along with the visibility of the Proposed Development have been run for all of the operational, under construction, consented and application wind farms that are considered relevant in the cumulative assessment, as shown in **Figures 6.13** to **6.17**. These show the extent of visibility of each wind farm in conjunction with the Proposed Development and are referred to in the following detailed assessments.

6.13.8 The cumulative sites are shown in the cumulative wirelines for each of the representative viewpoints, as shown in **Figures 6.19** to **6.37**. In these wirelines, the Proposed Development turbines are shown in red; operational and under-construction turbines are shown in black; consented turbines are shown in green and application turbines are shown blue. The main cumulative interactions will occur in respect of Costa Head Wind Farm which is situated on Costa Hill at a minimum of 1.8 km to the north-east of the Proposed Development.

6.13.9 There is only one application stage wind farm in the 45 km Study Area radius, namely Faray Wind Farm. As this is located a minimum of 24 km from the Proposed Development and with limited visibility across much of West Mainland owing to the screening effect of the moorland hills on Rousay and West Mainland, it has not been considered in the cumulative assessment. The assessment, therefore, focuses on the cumulative interactions between the proposed Development and the operational and consented wind farms (Scenario 1 described in paragraph 6.5.24).

6.13.10 In some instances, wind farms show up in the wirelines although they are beyond their own Study Area radius. Where this occurs, the wind farm is not included in the written assessment as it lies outwith its own Study Area radius and is, therefore, considered to lie beyond the radius within which it may contribute to a significant cumulative effect.

Preliminary Assessment of Cumulative Effects on Landscape Character

6.13.11 The assessment of cumulative effects on landscape character uses the same receptors as the assessment of effects on landscape character carried out previously in this chapter. These are in two groups, namely LCTs / LCUs and designated landscapes.

6.13.12 The cumulative assessment for landscape character types is presented below. The only landscape designation with potential to be affected is the Hoy and West Mainland NSA, the assessment and cumulative assessment of which is presented in **Appendix 6.2**. The detailed methodology for the assessment of cumulative effects on landscape character is described in **Appendix 6.1**.

6.13.13 Table 6.6 below presents a preliminary assessment of the LCTs / LCUs assessed in the main assessment in section 6.11 in order to ascertain which have the potential to undergo significant cumulative effects as a result of the Proposed Development. Those LCTs / LCUs shaded in grey have been identified as having the potential to undergo significant cumulative effects and therefore, require a full assessment.

Table 6.6 – Preliminary assessment of cumulative effects on landscape character

Receptor	Summary of Baseline Assessment	Relevant Cumulative Developments	Potential for cumulative effects to arise
296 Whaleback Islands LCT: 296A Eynhallow LCU	Moderate (not significant) No effect	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	Yes, there is the potential for significant cumulative effects to arise owing to the influence of the close range Proposed Development, operational Burgar Hill Wind Farm and consented Costa Head Wind Farm on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** and **6.15**.

Receptor	Summary of Baseline Assessment	Relevant Cumulative Developments	Potential for cumulative effects to arise
302 Inclined Coastal Pasture LCT: 302A Evie LCU	Moderate (significant) No effect	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	Yes, there is the potential for significant cumulative effects to arise owing to the influence of the close range Proposed Development, operational Burgar Hill Wind Farm and consented Costa Head Wind Farm on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** and **6.15**.
302 Inclined Coastal Pasture LCT: 302B Rousay LCU	Moderate (significant) No effect	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	Yes, there is the potential for significant cumulative effects to arise owing to the influence of the close range Proposed Development, operational Burgar Hill Wind Farm and consented Costa Head Wind Farm on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** and **6.15**.
304 Isolated Coastal Knolls LCT: 304B Vishall Hill LCU	Moderate / minor (not significant) No effect	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the Proposed Development and other cumulative wind farms on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** to **6.17**.
305 Enclosed Bays LCT: 305A Birsay LCU	Moderate (significant)	Operational – Burgar Hill Consented – Costa Head	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the other cumulative wind farms on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** to **6.17**.
306 Coastal Hills and Heath LCT: 306A North Coast LCU	Major (significant) No effect	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	Yes, there is the potential for significant cumulative effects to arise owing to the influence of the close range Proposed Development, operational Burgar Hill Wind Farm and consented Costa Head Wind Farm on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** and **6.15**.
306 Coastal Hills and	Moderate (significant)	Operational – Burgar Hill / Hammars Hill Consented – Costa Head	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the Proposed

Receptor	Summary of Baseline Assessment	Relevant Cumulative Developments	Potential for cumulative effects to arise
Heath LCT: 306B Ravi Hill LCU		/ Hammars Hill Extension	Development and other cumulative wind farms on this LCU, as shown in the cumulative ZTVs in **Figures 6.13 to 6.17**.
306 Coastal Hills and Heath LCT: 306C Vestra Fiold LCU	Moderate (significant)	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the Proposed Development and other cumulative wind farms on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** to **6.17**.
306 Coastal Hills and Heath LCT: 306E Rousay LCU	Moderate (significant)	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the Proposed Development and other cumulative wind farms on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** to **6.17**.
307 Cliffs LCT: 307A Marwick Head LCU	Moderate (significant)	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the other cumulative wind farms on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** to **6.17**.
309 Peatland Basin LCT: 309A Hillside LCU	Moderate (significant) No effect	Operational – Burgar Hill Consented – Costa Head	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the other cumulative wind farms on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** and **6.15**.
309 Peatland Basin LCT: 309C Rousay LCT	Moderate / Minor (not significant) No effect	Operational – Burgar Hill	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the other cumulative wind farms on this LCU, as shown in the cumulative ZTV in **Figure 6.13**.
310 Loch Basin LCT:	Major (significant)	Operational – Burgar Hill	Yes, there is the potential for significant cumulative effects to arise

Receptor	Summary of Baseline Assessment	Relevant Cumulative Developments	Potential for cumulative effects to arise
310A Swannay LCU	No effect	Consented – Costa Head	owing to the influence of the close range Proposed Development, operational Burgar Hill Wind Farm and consented Costa Head Wind Farm on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** and **6.15**.
310 Loch Basin LCT: 310B West Mainland LCU	Major or moderate (significant) Moderate/minor (not significant) No effect	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	Yes, there is the potential for significant cumulative effects to arise owing to the influence of the close range Proposed Development, operational Burgar Hill Wind Farm and consented Costa Head Wind Farm on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** and **6.15**.
313 Rolling Hill Fringe LCT: 313A Hillside LCU	Moderate (significant) Moderate / Minor (not significant) No effect	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	No, there is no potential for significant cumulative effects to arise owing to the limited influence of consented Costa Head Wind Farm and Hammars Hill Extension on this LCU. The cumulative ZTVs in **Figures 6.15** and **6.17** show the limited extents of visibility across this LCU.
313 Rolling Hill Fringe LCT: 313B West Mainland LCU	Major or Major / Moderate (significant) Moderate / Minor (not significant) No effect	Operational – Burgar Hill / Hammars Hill / Holodykes Consented – Costa Head / Hammars Hill Extension	Yes, there is the potential for significant cumulative effects to arise owing to the influence of the Proposed Development, operational Burgar Hill Wind Farm and consented Costa Head Wind Farm on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** and **6.15**.
314 Moorland Hills LCT: 314A West Mainland LCU	Major or Major / Moderate (significant) Moderate / Minor (not significant) No effect	Operational – Burgar Hill / Hammars Hill / Holodykes Consented – Costa Head / Hammars Hill Extension	Yes, there is the potential for significant cumulative effects to arise owing to the influence of the close range Proposed Development, operational Burgar Hill Wind Farm and Hammars Hill Wind Farm, consented Costa Head Wind Farm and application stage Hammars Hill Extension on this LCU, as shown in the cumulative ZTVs in **Figures 6.13, 6.14, 6.15** and **6.17**.
314	Moderate	Operational – Burgar	Yes, there is the potential for

Receptor	Summary of Baseline Assessment	Relevant Cumulative Developments	Potential for cumulative effects to arise
Moorland Hills LCT: 314D Rousay LCU	(significant) Moderate / Minor (not significant) No effect	Hill / Hammars Hill / Kingarly Hill Consented – Costa Head / Hammars Hill Extension	significant cumulative effects to arise owing to the influence of the Proposed Development, operational Burgar Hill Wind Farm and consented Costa Head Wind Farm on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** and **6.15**.
RCCA 10: Rousay North	Moderate (significant) No effect	Operational – Burgar Hill Consented – Costa Head	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the other cumulative wind farms on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** and **6.15**.
RCCA 11: Rousay South	Moderate (significant) No effect	Operational – Burgar Hill / Hammars Hill / Kingarly Hill Consented – Costa Head / Hammars Hill Extension	Yes, there is the potential for significant cumulative effects to arise owing to the influence of the Proposed Development, operational Burgar Hill Wind Farm and consented Costa Head Wind Farm on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** and **6.15**.
RCCA 12: Egilsay and Wyre	Moderate / minor (not significant) No effect	Operational – Burgar Hill / Hammars Hill / Kingarly Hill Consented – Costa Head / Hammars Hill Extension	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the Proposed Development and other cumulative wind farms on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** to **6.17**.
RCCA 26: Marwick Head and Bay of Skaill	Moderate/Minor (not significant) No effect	Operational – Burgar Hill / Hammars Hill / Consented – Costa Head / Hammars Head Extension	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the Proposed Development and other cumulative wind farms on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** to **6.17**.
RCCA 27: Brough Head to	Moderate (significant)	Consented – Costa Head	No, there is no potential for significant cumulative effects to arise owing to the limited influence of the Proposed

Receptor	Summary of Baseline Assessment	Relevant Cumulative Developments	Potential for cumulative effects to arise
Costa Head	No effect		Development and other cumulative wind farms on this LCU, as shown in the cumulative ZTVs in **Figures 6.13** to **6.17**.

Assessment of Cumulative Effects on Landscape and Coastal Character

6.13.14 The preliminary assessment presented in Table 6.6 highlights the fact that nine LCTs / LCUs and one RCCA have the potential to undergo significant cumulative effects as a result of the Proposed Development. A detailed assessment of the cumulative effects on these landscape receptors is presented in Table 6.7 below, taking into account the cumulative effects of the Proposed development in addition to all relevant operational and consented wind farms. There are no application stage wind farms with a direct relevance to this assessment owing to their comparatively distant location and limited influence on the local cumulative situation.

Table 6.7 Assessment of the cumulative effects on LCTs / LCUs and RCCAs

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
296 Whaleback Islands LCT: 296A Eynhallow LCU	The cumulative ZTV in **Figure 6.15** shows that consented Costa Head Wind Farm would be visible over similar extents of this LCU as the Proposed Development and located a minimum of approximately 4 km from the LCU. The cumulative ZTV in **Figure 6.13** shows that there is already a baseline influence from Burgar Hill Wind Farm at a minimum of approximately 2.5 km to the south of the LCU. The cumulative magnitude of change would be **medium**. The Proposed Development would be added along the skyline of the coastal hills at a minimum of approximately 4 km from the LCU. It would be seen between Burgar Hill to the south and Costa Head to the north. The Proposed Development would add to the extent of the developed skyline which forms a characterising feature on Eynhallow Island, it would partly infill the gap that separates the other cumulative wind farms, and the four turbines would be seen to be slightly larger than the other cumulative turbines The magnitude of change would, however, be moderated by the fact that it would not increase the extents of wind farm development along this coastline, as it would fill in between the other cumulative wind farms, and it would keep wind farm development contained within this southerly sector. Furthermore, it would add only four turbines, and these would not be seen to their full extents	The combination of the medium sensitivity and the medium cumulative magnitude of change would give rise to a **moderate (not significant)** cumulative effect on the western and central parts of the LCU and **no effect** on the eastern part.

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
	owing to the screening effect of the intervening landform. On the eastern side of the island where there would be no visibility of the Proposed Development, there would be no change.	
302 Inclined Coastal Pasture LCT: 302A Evie LCU	There are only a few small patches in this LCU over which the Proposed Development would be visible, and it is the patch to the north of operational Burgar Hill Wind Farm that is most susceptible to the potential for significant cumulative effects owing to its proximity to the Proposed Development and other cumulative wind farms. The cumulative ZTV in **Figure 6.15** shows that consented Costa Head Wind Farm would also be visible from this patch of the LCU and located a minimum of approximately 2 km from the LCU. Consented Hammars Hill extension would also be visible at a minimum of approximately 5 Km to the south. The cumulative ZTVs in **Figures 6.13** and **6.14** show that there is already a baseline influence from Burgar Hill Wind Farm on the boundary of this LCU. The cumulative magnitude of change would be **medium-high** in this small patch of the LCU while there would be **no change** across the remainder of the LCU. The Proposed Development would be added along the skyline of the coastal hills at a minimum of approximately 1 km from the LCU. It would be seen between Burgar Hill to the south and Costa Head to the north. While the Proposed Development would not increase the extents of wind farm development along this coastline, it would add to the extent of the developed skyline which encloses the north-western side of this LCU and would partly infill the gap that separates the other cumulative wind farms. Furthermore, the four turbines would be seen to be notably larger than the other cumulative turbines and would add to a cumulative situation in which Burgar Hill Wind Farm already presents a close-range influence on this patch of the LCU.	The combination of the medium sensitivity and the medium cumulative magnitude of change would give rise to a **moderate (significant)** cumulative effect on this localised part of the LCU that lies to the north of Burgar Hill Wind Farm. There would be **no effect** on the remaining parts of the LCU.
302 Inclined Coastal Pasture LCT: 302B Rousay LCU	The cumulative ZTV in **Figure 6.15** shows that consented Costa Head Wind Farm would be visible from this LCU of the Inclined Coastal Pasture and located a minimum of approximately 4.5 km from the LCU. Consented Hammars Hill Extension would also be visible at a minimum of approximately 5 Km to the south. The cumulative ZTVs in **Figures 6.13** and **6.14** show that there is already a baseline influence from Burgar Hill Wind Farm at a minimum of approximately 4 km to the south-west of this LCU, and	The combination of the medium sensitivity and the medium cumulative magnitude of change would give rise to a **moderate (not significant)** cumulative effect on

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
	Hammars Hill Wind Farm at a minimum of approximately 4.5 km. The cumulative magnitude of change would be **medium** across the western part of this LCU between Westness and Frostoft, **medium-low** to the east of this or **no change** where there would be no visibility. The Proposed Development would add to the extent of the developed skyline which forms a characterising feature on the Inclined Pasture of Rousay, it would partly infill the gap that separates the other cumulative wind farms, and the four turbines would be seen to be slightly larger than the other cumulative turbines The magnitude of change would, however, be moderated by the fact that it would not increase the extents of wind farm development along this coastline, as it would fill in between the other cumulative wind farms, and it would keep wind farm development contained within this southerly sector. Furthermore, it would add only four turbines, and these would not be seen to their full extents owing to the screening effect of the intervening landform. On the southern and eastern side of the island where there would be limited or no visibility of the Proposed Development, there would be a **low** cumulative magnitude of change or **no change**.	the part of the LCU between Westness and Frostoft and **moderate/minor (not significant)** or with **no effect** on all remaining parts.
306 Coastal Hills and Heath LCT: 306A North Coast LCU	The cumulative ZTV in **Figure 6.15** shows that consented Costa Head Wind Farm would be located in this LCU and visible from most of its extents with the exception of a patch of no visibility in the north-west of this LCU. The cumulative ZTVs in **Figures 6.13** and **6.14** show that there is already a baseline influence from Burgar Hill Wind Farm at a minimum of approximately 2.5 km and Hammars Hill Wind Farm at a minimum of approximately 7 km, both to the south of the LCU. The cumulative magnitude of change would be **medium-high** across the eastern parts of this LCU, while there would be **no change** or a **medium-low** cumulative magnitude of change across the remainder of the LCU. The Proposed Development would be partly located in this LCU such that there would be direct and indirect effects on its landscape character. While Costa Head would comprise four turbines each with a blade tip height of 125 m, the four proposed turbines would add a further four turbines each with a blade tip height of up to 180 m. The Proposed	The combination of the medium-high sensitivity and the medium-high cumulative magnitude of change would give rise to a **major/moderate (significant)** cumulative effect on the eastern parts of the LCU. There would be a **moderate/minor (not significant) effect** or **no effect** on the remaining parts of the LCU.

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
	Development would increase the extent of wind farm development within close proximity to this LCU and would have a notable cumulative effect on its landscape character. It would also be seen in the context of operational Burgar Hill Wind Farm at approximately 2.5 km to the south, such that there would be a sense of enclosure from wind farm development in this north-eastern part of the LCU.	
310 Loch Basin LCT: 310A Swannay LCU	The operational wind farm with the most extensive influence across this small LCU is Burgar Hill Wind Farm which is located adjacent to the south-east boundary. The cumulative ZTV in **Figures 6.13** shows that intervisibility between the Proposed Development and Burgar Hill occurs as an almost continuous patch across this LCU, from which the five turbines would be seen set on the moorland hills to the south-east. The cumulative ZTVs in **Figures 6.14** and **6.17** show that intervisibility with Hammars Hill and Extension is very limited, owing to the screening effect of the intervening hills. The cumulative ZTV in **Figure 6.15** shows that consented Costa Head Wind Farm would be inter-visible with the Proposed Development also as an almost continuous patch across this LCU, with the four turbines set adjacent to the northern boundary of this LCU. The cumulative magnitude of change would be **medium-high** across all of this LCU. Two of the proposed turbines would be located in this LCU, while the other two would be located in the adjacent Coastal Hills and Heath LCT. The Proposed Development would be partly located in this LCU such that there would be direct and indirect effects on its landscape character. This would mean that the proposed turbines would have direct and close-range indirect effects on the Swannay LCU. They would be seen in addition to the cumulative influences of Costa Head Wind Farm to the immediate north and Burgar Hill Wind Farm to the immediate south-east, and the addition of the proposed turbines would present a sense of enclosure around this loch basin. Furthermore, the increase in the size of the proposed turbines relative to the cumulative turbines would present a notable variance that would further accentuate a disparity between these developments.	The combination of the medium-high sensitivity and the medium-high cumulative magnitude of change would give rise to a **major/moderate (significant)** cumulative effect on this LCU.
310 Loch Basin LCT: 310B West	The operational wind farm with the most extensive influence across this LCU is Burgar Hill Wind Farm which is located a minimum of approximately 3.5 km to the east.	The combination of the medium-high sensitivity and the

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
Mainland LCU	The cumulative ZTV in **Figure 6.13** shows that intervisibility between the Proposed Development and Burgar Hill occurs as large patches in the northern part of the LCU, and smaller patches in the more distant southern part. The cumulative ZTVs in **Figures 6.14** and **6.17** show that intervisibility with Hammars Hill and Extension is very limited, owing to the screening effect of the intervening hills. The cumulative ZTV in **Figure 6.15** shows that consented Costa Head Wind Farm would be inter-visible with the Proposed Development with large patches concentrated in the northern part of the LCU and then becoming more intermittent further south as the intervening hills would increasingly screen the extents of Costa Head Wind Farm and the Proposed Development. The cumulative magnitude of change would be **medium** in the northern part of the LCU out to approximately 4 km and then **medium-low** or **low** for all remaining parts or **no change** where there would be no visibility. The Proposed Development would be added to a context in which operational Burgar Hill already has a close-range influence on landscape character and consented Costa Head Wind Farm would establish this type of development as a feature in the north-east corner of West Mainland. The medium cumulative magnitude of change would relate to the proximity of the Proposed Development to this LCU and the larger scale of the turbines which would be evident through comparison with the smaller cumulative turbines. It would increase the sense of enclosure from wind turbines in this northern part of the LCU, but this effect would dissipate beyond 4 km where the influence of Burgar Hill Wind Farm would become stronger owing to its location in this LCU and the influence of the Proposed Development would start to diminish in comparison.	medium cumulative magnitude of change would give rise to a **moderate (significant)** cumulative effect on the northern part of the LCU out to approximately 4 km. There would be a **moderate/minor (not significant) effect** or **no effect** on the remaining parts of the LCU.
313 Rolling Hill Fringe LCT: 313B West Mainland LCU	The operational wind farm with an influence across this LCU is Burgar Hill Wind Farm at a minimum of approximately 4 km to the east. The cumulative ZTV in **Figure 6.13** shows that patches of intervisibility with the Proposed Development occur in the northern part of the LCU between Kirbuster and Dounby and the southern part to the east of Loch of Harray. The influence of Burgar Hill on this LCU is, however limited by the relatively small size of the turbines and the screening effect of the intervening landform. The cumulative ZTVs in **Figures 6.14** and **6.17** show that intervisibility with Hammars Hill and Extension is	The combination of the medium sensitivity and the medium-low cumulative magnitude of change would give rise to a **moderate/minor (not significant)** cumulative effect

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
	very limited across this LCU and, therefore, these developments would have a very limited influence on the cumulative situation. The cumulative ZTV in **Figure 6.15** shows that consented Costa Head Wind Farm would be visible also from the northern part of the LCU at a minimum of 4.5 km, although seen set in the coastal hills in the north-east corner of West Mainland. The cumulative magnitude of change would be **medium-low** across the northern part of the LCU. At a distance of approximately 2.5 km from the northern boundary, the Proposed Development would form a notable addition to the influence of wind farm development across the northern part of this LCU, and this is recognised in the assessment of a major/moderate (significant) solus effect. The cumulative magnitude of change would, however, be moderated by the limited influence of the other cumulative developments which owing to their slightly larger separation distance, notably smaller scale and reduced visibility from parts of the LCU owing to the screening effect of the intervening landform, would mean that the cumulative interactions with the Proposed Development would be limited. In the remaining parts of the LCU further to the south, the cumulative magnitude of change would reduce to **low**, where the influence of the Proposed Development, as well as the other cumulative developments would reduce further and where no visibility would occur there would be **no change**.	across the northern part of the LCU. The combination of the medium sensitivity and the low cumulative magnitude of change would give rise to a **minor (not significant)** cumulative effect across the remainder of the LCU and with **no effect** where there would be no visibility.
314 Moorland Hills LCT: 314A West Mainland LCU	The operational wind farms that have an influence across this LCU include Burgar Hill Wind Farm and Hammars Hill Wind Farm, which are both located in this LCU. The cumulative ZTVs in **Figures 6.13** and **6.14** show that intervisibility between the Proposed Development and Burgar Hill occurs as patches across north-west facing slopes, while intervisibility with Hammars Hill is very limited, occurring only as small patches on select hilltops. The cumulative ZTV in **Figure 6.15** shows that consented Costa Head Wind Farm would be visible also from patches across north-west facing hill slopes and would be located a minimum of approximately 2 km from the northern edge of the LCU. The cumulative magnitude of change would be **medium** in the northern part of the LCU out to approximately 4 km and then **medium-low** or **low** for all remaining parts or **no change** where there would be no visibility. The Proposed	The combination of the medium-high sensitivity and the medium cumulative magnitude of change would give rise to a **moderate (significant)** cumulative effect on the northern part of the LCU out to approximately 4 km. There would be a **moderate/minor (not significant) effect** or **no effect** on the remaining

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
	Development would be added to a context in which operational Burgar Hill already has a close-range influence on landscape character and consented Costa Head Wind Farm would establish this type of development as a feature in the north-east corner of West Mainland. The medium cumulative magnitude of change would relate to the proximity of the Proposed Development to this LCU and the larger scale of the turbines which would be evident through comparison with the other cumulative turbines. It would increase the sense of enclosure from wind turbines in this northern part of the LCU, but this effect would dissipate beyond 4 km where the influence of Burgar Hill Wind Farm would become stronger owing to its location in this LCU and the influence of the Proposed Development would start to diminish in comparison.	parts of the LCU.
314 Moorland Hills LCT: 314D Rousay LCU	The cumulative ZTV in **Figure 6.15** shows that consented Costa Head Wind Farm would be visible from patches of this LCU where west and south-west facing hill slopes occur and would be located a minimum of approximately 7 km from the LCU. Consented Hammars Hill Extension would also be visible at a minimum of approximately 5.5 km to the south. The cumulative ZTVs in **Figures 6.13** and **6.14** show that there is already a baseline influence from Burgar Hill Wind Farm at a minimum of approximately 5 km to the south-west of this RCCA and Hammars Hill Wind Farm at a minimum of approximately 6 km to the south. The cumulative magnitude of change would be **medium-low** where there would be visibility and **no change** where there would be no visibility. The Proposed Development would be added along the skyline of the coastal hills at a minimum of approximately 7.5 km from the LCU. It would be seen between Burgar Hill to the south and Costa Head to the north. While the Proposed Development would not increase the extents of wind farm development along this coastline, it would add to the extent of the developed skyline and would partly infill the gap that separates the other cumulative wind farms. Furthermore, the four turbines would be seen to be notably larger than the other cumulative turbines despite their slightly longer range. The cumulative magnitude of change would, however, be moderated by the more extensive landscape context that influences the more elevated parts of the island covered by the Moorland Hills LCT, and in respect of which the Proposed Development would occupy only a small	The combination of the medium sensitivity and the medium cumulative magnitude of change would give rise to a **moderate/minor (not significant)** cumulative effect or with **no effect** on all remaining parts where there would be no visibility.

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
	proportion.	
RCCA 11: Rousay South	The cumulative ZTV in **Figure 6.15** shows that consented Costa Head Wind Farm would be visible from this RCCA which lines the southern coast of Rousay and would be located a minimum of approximately 4.5 km from the RCCA. Consented Hammars Hill Extension would also be visible at a minimum of approximately 5 km to the south. The cumulative ZTVs in **Figures 6.13** and **6.14** show that there is already a baseline influence from Burgar Hill Wind Farm at a minimum of approximately 4 km to the south-west of this RCCA and Hammars Hill Wind Farm at a minimum of approximately 4.5 km to the south. The cumulative magnitude of change would be **medium** across the western part of this RCCA between Westness and Frostoft, **medium-low** to the east of this or **no change** where there would be no visibility. The Proposed Development would add to the extent of the developed skyline which forms a characterising feature on the South Rousay RCCA, it would partly infill the gap that separates the other cumulative wind farms, and the four turbines would be seen to be slightly larger than the other cumulative turbines The magnitude of change would, however, be moderated by the fact that it would not increase the extents of wind farm development along this coastline, as it would fill in between the other cumulative wind farms, and it would keep wind farm development contained within this southerly sector. Furthermore, it would add only four turbines, and these would not be seen to their full extents owing to the screening effect of the intervening landform. On the southern and eastern side of the island where there would be limited or no visibility of the Proposed Development, there would be a **low** cumulative magnitude of change or **no change**.	The combination of the medium sensitivity and the medium cumulative magnitude of change would give rise to a **moderate (not significant)** cumulative effect on the part of the RCCA between Westness and Frostoft and **moderate/minor (not significant)** or with **no effect** on all remaining parts.

Preliminary Assessment of Cumulative Effects on Visual Amenity

6.13.15 The assessment of cumulative effects on visual amenity uses the same visual receptors as the assessment of effects on visual amenity carried out previously in this chapter. The cumulative assessment for representative viewpoints is presented below. The detailed methodology for the assessment of cumulative effects on landscape character is described in **Appendix 6.1**.

6.13.16 Table 6.8 below presents a preliminary assessment of the representative viewpoints assessed in the main assessment in section 6.12 in order to ascertain which have the potential to undergo significant cumulative effects as a result of the Proposed Development. Those representative

viewpoints shaded in grey have been identified as having the potential to undergo significant cumulative effects and therefore, require a full assessment, which is presented in Table 6.8 below.

Table 6.8 – Preliminary Assessment of Cumulative Effects on Representative Viewpoints

Receptor	Summary of Baseline Assessment	Relevant Cumulative Developments	Potential for cumulative effects to arise
VP1: A966, Loch of Swannay	Major (significant)	Operational – Burgar Hill Consented – Costa Head	Yes, there is the potential for significant cumulative effects to arise owing to the proximity of the Proposed Development and consented Costa Head Wind Farm to this viewpoint.
VP2: A966, Hundland Road junction	Major (significant)	Operational – Burgar Hill Consented – Costa Head	Yes, there is the potential for significant cumulative effects to arise owing to the proximity of the Proposed Development and consented Costa Head Wind Farm to this viewpoint.
VP3: Vinquin Hill, Costa	Major (significant)	Operational – Burgar Hill Consented – Costa Head	Yes, there is the potential for significant cumulative effects to arise owing to the proximity of the Proposed Development and consented Costa Head Wind Farm to this viewpoint.
VP4: Mid Hill	Moderate (significant)	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	Yes, there is the potential for significant cumulative effects to arise owing to the proximity of the Proposed Development, operational Burgar Hill and Hammars Hill wind farms and consented Costa Head Wind Farm to this viewpoint.
VP5: Kirbuster, Loch of Hundland	Major (significant)	Operational – Burgar Hill Consented – Costa Head	Yes, there is the potential for significant cumulative effects to arise owing to the proximity of the Proposed Development, operational Burgar Hill and Hammars Hill wind farms and consented Costa Head Wind Farm to this viewpoint.
VP6: Brough of	Moderate (significant)	Operational – Burgar Hill	No, although there is the potential for cumulative effects to arise, these would not be significant

Receptor	Summary of Baseline Assessment	Relevant Cumulative Developments	Potential for cumulative effects to arise
Birsay		Consented – Costa Head	owing to the very limited visibility and influence from the other cumulative wind farms.
VP7: A967, Birsay Community Hall	Major / moderate (significant)	Operational – Burgar Hill Consented – Costa Head	No, although there is the potential for cumulative effects to arise, these would not be significant owing to the very limited visibility and influence from the other cumulative wind farms.
VP8: A967, Twatt	Moderate (significant)	Operational – Hammars Hill Consented – Costa Head	No, although there is the potential for cumulative effects to arise, these would not be significant owing to the limited visibility and influence from the other cumulative wind farms.
VP9: A967, near Rosemire	Moderate (significant)	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	No, although there is the potential for cumulative effects to arise, these would not be significant owing to the limited visibility and influence from the other cumulative wind farms.
VP10: A967, near Queena	Moderate (not significant)	Operational – Burgar Hill Consented – Costa Head	No, although there is the potential for cumulative effects to arise, these would not be significant owing to the limited visibility and influence from the Proposed Development and other cumulative wind farms.
VP11: Ring of Brodgar	Moderate (not significant)	Operational – Burgar Hill Consented – Costa Head	No, although there is the potential for cumulative effects to arise, these would not be significant owing to the limited visibility and influence from the Proposed Development and other cumulative wind farms.
VP12: Vishall Hill	Minor (not significant)	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill	No, although there is the potential for cumulative effects to arise, these would not be significant owing to the limited visibility and influence from the Proposed

Receptor	Summary of Baseline Assessment	Relevant Cumulative Developments	Potential for cumulative effects to arise
		Extension	Development.
VP13: B9057 north-west of Dounby	Major / moderate (significant)	Operational – Burgar Hill Consented – Costa Head	No, although there is the potential for cumulative effects to arise, these would not be significant owing to the very limited visibility and influence from the other cumulative wind farms.
VP14: Skara Brae	Moderate / minor (not significant)	Operational – Burgar Hill	No, although there is the potential for cumulative effects to arise, these would not be significant owing to the very limited visibility and influence from the Proposed Development.
VP15: Vestra Fiold	Moderate (significant)	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	No, although there is the potential for cumulative effects to arise, these would not be significant owing to the very limited visibility and influence from the other cumulative wind farms.
VP16: A966 west of Abune the Hill	Major (significant)	Operational – Burgar Hill Consented – Costa Head	Yes, there is the potential for significant cumulative effects to arise owing to the proximity of the Proposed Development and consented Costa Head Wind Farm to this viewpoint.
VP17: Westside, Rousay	Moderate (significant)	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	Yes, there is the potential for significant cumulative effects to arise owing to the visibility and influence of the Proposed Development, operational Burgar Hill and Hammars Hill and consented Costa Head Wind Farm.
VP18: Hillock Road, Shapinsay	Moderate / minor (not significant)	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	No, although there is the potential for cumulative effects to arise, these would not be significant owing to the limited visibility and influence from the Proposed Development and cumulative developments.

Receptor	Summary of Baseline Assessment	Relevant Cumulative Developments	Potential for cumulative effects to arise
VP19: Ward Hill, Hoy	Moderate / minor (not significant)	Operational – Burgar Hill / Hammars Hill Consented – Costa Head / Hammars Hill Extension	No, although there is the potential for cumulative effects to arise, these would not be significant owing to the limited visibility and influence from the Proposed Development and cumulative developments.

Assessment of Cumulative Effects on Visual Amenity

6.13.17 The preliminary assessment presented in Table 6.9 highlights the fact that seven representative viewpoints have the potential to undergo significant cumulative effects as a result of the Proposed Development. A detailed assessment of the cumulative effects on these visual receptors is presented in Table 6.9 below, taking into account the cumulative effects of the Proposed Development in addition to all relevant operational and consented wind farms. There are no application stage wind farms with a direct relevance to this assessment owing to their comparatively distant location and limited influence on the local cumulative situation.

Table 6.9: Assessment of cumulative effects on representative viewpoints

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
VP1: A966, Loch of Swannay	The cumulative wireline in **Figure 6.19c** shows that all four of the consented Costa Head turbines would be readily visible as large-scale structures owing to their close proximity on Costa Hill to the immediate north of the viewpoint at 0.2 km. Five of the six operational Burgar Hill turbines are also visible, albeit seen as small-scale structures set on the more distant moorland hills to the south. The Proposed Development would be seen to the south-west of the viewpoint where all four turbines would be seen to their full extent, set across Hundland Hill. The cumulative magnitude of change would be **medium** owing to the increased extent of the skyline that would be occupied by wind farm development and the location of the four proposed turbines in the opposite sector to Costa Head Wind Farm, that would increase the sense that the viewpoint was enclosed by wind farm development.	The combination of the medium-high sensitivity and the medium cumulative magnitude of change would give rise to a **moderate (significant)** cumulative effect
VP2: A966, Hundland Road junction	The cumulative wireline in **Figure 6.20c** shows that all four of the consented Costa Head turbines would be readily visible from this area, although screened from this specific viewpoint by the intervening residential property. They would be seen to the north-east of this viewpoint at a minimum of 1.4 km. The six operational Burgar Hill turbines are also visible, albeit seen as small-scale structures partly screened by the intervening	The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change would give

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
	landform. The Proposed Development would be seen to the south-east of the viewpoint where all four turbines would be seen although not all to their full extent, owing to the screening effect of the ridgeline. The cumulative magnitude of change would be **medium-low** owing to the increased extent of the skyline that would be occupied by wind farm development and the location of the four proposed turbines in a different sector to Costa Head Wind Farm, such that the extent of wind farm development would be seen to increase. The cumulative magnitude of change is prevented from being rated higher than medium-low owing to the limited influence from Burgar Hill and other cumulative wind farms.	rise to a **moderate (not significant)** cumulative effect.
VP3: Vinquin Hill, Costa	The cumulative wireline in **Figure 6.21c** shows that all four of the consented Costa Head turbines would be readily visible to the immediate north of the viewpoint at a minimum of 1.8 km. The six operational Burgar Hill turbines are also visible, seen set on the moorland hills in the opposite sector to the south, at a minimum of 2.7 km. The Proposed Development would be seen to the east of the viewpoint where all four turbines would be seen to practically their full extent, set across the low landform of Hundland Hill. The cumulative magnitude of change would be **medium-high** owing to the increased extent of wind farm development visible from this viewpoint. Although the Proposed Development would comprise only four turbines, their proximity to the viewpoint would mean that they would occupy a notable proportion of the wider view. Furthermore, their larger scale would increase their prominence and their influence on the view. While the location of cumulative wind farms to the north and south means that the Proposed Development would not be increasing the spread of wind farm development, it would be seen to infill part of the gap that currently separates the other developments.	The combination of the medium-high sensitivity and the medium-high cumulative magnitude of change would give rise to a **major/moderate (significant)** cumulative effect.
VP4: Mid Hill	The cumulative wireline in **Figure 6.22c** shows that all six of the operational Burgar Hill turbines are readily visible as large-scale structures owing to their close proximity on Burgar Hill to the east of the viewpoint at a minimum of 1.3 km. The four consented Costa Hill turbines would also visible, albeit seen as more distant structures, set on the western side of Costa Hill at a minimum of 5.6 km to the north. The Proposed Development would be added to the northern sector at the closer range of 3.2 km. While the turbines would be readily visible the lower parts of two of the turbines would be seen partly screened by the intervening landform. The cumulative magnitude of	The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change would give rise to a **moderate/minor (not significant)** cumulative effect.

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
	change would be **medium-low**. Although the Proposed Development would increase the extent of wind farm development in this view, the cumulative magnitude of change would be moderated by its location in the northerly sector, where there would be an influence from Costa Head Wind Farm and which ensures that the westerly and southerly sectors remain undeveloped. Furthermore, the Proposed Development comprises four turbines which form a compact group occupying only a small proportion of the wider 360 degree view. The effect is also moderated by the closer proximity of the Burgar Hill turbines, which by comparison would reduce the perceived scale of the proposed turbines.	
VP5: Kirbuster, Loch of Hundland	The cumulative wireline in **Figure 6.23c** shows that all four of the consented Costa Head turbines would be readily visible at a minimum of 3.8 km and set to the left of Hundland Hill on the western side of Costa Hill. The six operational Burgar Hill turbines are also visible at a minimum distance of 5.0 km and set along the ridge of the moorland hills to the right of Hundland Hill. The Costa Head turbines would be 125 m to blade tip while the Burgar Hill turbines comprise turbines at 76 m and 116 m to blade tip. The Proposed Development would be seen to the east of the viewpoint where all four turbines would be seen set across Hundland Hill with the lower parts of two of the turbines screened by the intervening landform. The cumulative magnitude of change would be **medium-low**. The addition of the Proposed Development would not increase the spread of wind farm development into new sectors, as it would be contained within the same sector as consented Costa Head and operational Burgar Hill. It would, however, infill the gap between these developments and more notably present a much larger size of turbine that would accentuate the variance in scale with the other cumulative developments.	The combination of the medium-high sensitivity and the medium-high cumulative magnitude of change would give rise to a **moderate (not significant)** cumulative effect.
VP16: A966 west of Abune the Hill	The cumulative wireline in **Figure 6.34c** shows that all four of the consented Costa Head turbines would be readily visible from this area, seen set on the western side of Costa Hill at a minimum of 2.9 km to the east. The six operational Burgar Hill turbines are also visible, seen set along the ridge of the moorland hills to the rear of Hundland Hill and at a minimum distance of 6.8 km to the south-east. The Proposed Development would also be seen to the south-east of the viewpoint, set to the fore of the Burgar Hill turbines at a minimum of 2.7 km, with all four turbines readily visible, albeit	The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change would give rise to a **moderate (not significant)** cumulative effect.

Receptor	Cumulative Magnitude of Change	Cumulative Significance of Effect
	with some partial screening by the intervening landform of Hundland Hill. The cumulative magnitude of change would be **medium-low**. The addition of the Proposed Development would not increase the spread of wind farm development into new sectors, as it would be contained within the same sector as operational Burgar Hill and consented Costa Head. It would, however, concentrate the influence of wind farm developments in this sector and more notably present a much larger size of turbine that would accentuate the variance in scale with the other cumulative developments. The cumulative magnitude of change is prevented from being rated higher than medium-low owing to the limited influence from Burgar Hill and Costa Head.	
VP17: Westside, Rousay	The cumulative wireline in **Figure 6.35c** shows that two operational, one consented and one application stage wind farms would be visible along the hills that define the coastal edge of West Mainland. To the south, the six operational Hammars Hill turbines and two Hammars Hill Extension turbines would be visible at a minimum of 6.2 km and 6.1 km respectively km, with the scale comparison between the 67 m and 150 m tall turbines readily evident. To the south-east, the five operational Burgar Hill turbines would also be readily visible at a minimum of 4.9 km, seen set along the coastal ridge. To the east, Costa Head Wind Farm would be visible although largely screened by the intervening landform of Costa Hill such that only one turbine would be seen to below the hub and the remaining three seen as blades or tips. The Proposed Development would be seen set between Burgar Hill and Costa Head wind farms at a minimum of 7.0 km. Although these proposed turbines would be larger than the other cumulative turbines in the view, their location behind the coastal ridge means that the towers would be screened, and this would reduce their perceived scale. The cumulative magnitude of change would relate to the increased extent of the skyline that would be occupied by wind farm development and the location of the four proposed turbines in the gap between Burgar Hill and Costa Head. The cumulative magnitude of change is prevented from being rated higher than medium-low owing to the limited influence from Costa Head Wind Farm and the containment of wind farm development on the coastal edge of West Mainland and in the south to east sector.	The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change would give rise to a **moderate (not significant)** cumulative effect.

In-combination Cumulative Effects

6.13.18 The in-combination cumulative effects relate to the effect of the Proposed Development in combination with all other wind farm developments which have an influence on the cumulative situation as experienced in respect of the landscape and visual receptors being assessed.

6.13.19 In considering the broad pattern of wind farm development across the 45 km Study Area, Figure 6.12 illustrates a pattern in which the existing and proposed wind farms are small in terms of number of turbines and extent, and generally dispersed across the islands. The relatively small-scale and low-lying nature of the landscapes, combined with the extent to which these landscapes have been settled, has led to a pattern of wind farm development in which turbines are located in the less developed uplands or coastal areas.

6.13.20 In respect of the landscape and visual receptors in the 45 km Study Area, those with potential to undergo significant in-combination cumulative effects lie within close proximity to the Proposed Development for the following reasons. Firstly, the existing and proposed wind farms are relatively small in number and small in scale and this means that their zone of visual influence is limited in strength and extent. Secondly, these existing and proposed wind farms are fairly well dispersed across the Mainland of Orkney and surrounding islands, and this generally reduces the concentration of wind farm development in any one area. Thirdly, the Proposed Development in combination with operational Burgar Hill Wind Farm and consented Costa Head Wind Farm, does contribute to a clustering of wind farm developments in the north-east corner of West Mainland, leading to significant cumulative effects on landscape and visual receptors in this localised area.

6.13.21 The in-conjunction cumulative effects arising as a result of the Proposed Development in-conjunction with operational Burgar Hill Wind Farm and consented Costa Head Wind Farm, such that significant effects were found to occur within parts of five of the LCTs / LCUs that occur within 4 km of the Proposed Development and in respect of two representative viewpoints which lie within 2 km of the Proposed Development.

6.13.22 The in-combination cumulative effects arising as a result of the combination of all the existing and proposed wind farms would largely reflect the assessment presented in respect of the in-conjunction effects, as it would relate principally to the combined effects of the Proposed Development, operational Burgar Hill Wind Farm and consented Costa Head Wind Farm. These effects would occur within parts of the following five LCTs / LCUs that occur in the Study Area.

- 302 Inclined Coastal Pasture LCT: 302A Evie LCU – localised patches north of Burgar Hill;
- 306 Coastal Hills and Heath LCT: 306A North Coast LCU – the north-eastern part of this LCU;
- 310 Loch Basin LCT: 310A Swannay LCU – all this LCU;
- 310 Loch Basin LCT: 310B West Mainland LCU - northern part of this LCU out to 4 km; and
- 314 Moorland Hills LCT: 314A West Mainland LCU - northern part of this LCU out to 4 km.

6.13.23 These significant in-combination cumulative effects would extend out to a radius of approximately 4 km. The cumulative effect of the Proposed Development on all other LCTs / LCUs would be not significant and there would be no significant cumulative effects on the RCCAs / LCCAs or on the SLQs of the Hoy and West Mainland NSA.

6.13.24 The assessment of cumulative effects on visual amenity has identified that significant in-combination cumulative effects would arise as a result of the addition of the Proposed Development in respect of the following two representative viewpoints which lie within 2 km radius of the Proposed Development:

- VP1: A966, Loch of Swannay; and
- VP3: Vinquin Hill, Costa.

6.14 Summary

Introduction

6.14.1 The potential effects on the landscape and visual receptors that would arise as a result of the Proposed Development have been assessed in this chapter. The process taken involved identifying those receptors with the potential to be significantly affected and assessing the potential effects that the construction and operation of the Proposed Development would give rise to. The significance of these effects has been assessed through combining the sensitivity of each receptor with a prediction of the magnitude of change that would occur as a result of the Proposed Development. The findings of the assessment are presented in summary in Tables 6.10 and 6.11 below.

6.14.2 The Proposed Development comprises four turbines each up to 180 m to blade tip with associated infrastructure, including permanent access tracks, substation, foundations and hard-standings and temporary borrow pit and construction compound, as described in **Chapter 3** and shown in **Figure 1.2**.

6.14.3 The Study Area for the Proposed Development covers a radius of 45 km and within this area, those receptors with the potential to be significantly affected have been assessed in detail. This has included one landscape element, 17 LCTs / LCUs, five RCCAs, one designated landscape area, and 19 viewpoints. Photomontages have been prepared for all of the viewpoints. The figures also include a wireline of the Proposed Development on its own and a wireline with all other cumulative Proposed Developments. These visualisations have helped assist in the assessment process**. Figures 6.1 to 6.18** show plans of the Study Area, landscape receptors, visual receptors and ZTVs of the Proposed Development on its own and in combination with other cumulative windfarms, while **Figures 6.19 to 6.37** show the photographs, wirelines and photomontages from the representative viewpoints.

Landscape and Coastal Character Effects

6.14.4 In respect of the physical effects on landscape elements, the assessment found no significant effects would arise in relation to the loss of the agricultural land as a result of the construction of the Proposed Development. The losses would comprise only a small proportion of a much wider landscape resource and would be relatively easy to re-establish either post- construction or post-decommissioning, depending on the short, or long-term use of the area.

6.14.5 The assessment of effects on landscape character found that significant effects, during the construction and operational phases would arise as a result of the Proposed Development within parts of 15 of the LCTs / LCUs that occur in the Study Area. Those parts of the LCTs that would undergo significant effects are as follows with the remaining parts either not significantly affected or not affected:

- 296 Whaleback Islands LCT: 296A Eynhallow LCU – western and central parts;
- 302 Inclined Coastal Pasture LCT: 302A Evie LCU – localised patches north of Burgar Hill;
- 302 Inclined Coastal Pasture LCT: 302B Rousay LCU – western and south-western parts;
- 305 Enclosed Bays LCT: 305A Birsay LCU – practically all this LCU;
- 306 Coastal Hills and Heath LCT: 306A North Coast LCU – practically all this LCU;
- 306 Coastal Hills and Heath LCT: 306B Ravi Hill LCU – northern and western parts;
- 306 Coastal Hills and Heath LCT: 306C Vestra Fiold LCU – practically all this LCU;
- 306 Coastal Hills and Heath LCT: 306E Rousay LCU – southern part;
- 307 Cliffs LCT: 307A Marwick Head LCU - practically all this LCU;

- 309 Peatland Basin LCT: 309A Hillside LCU - practically all this LCU;
- 310 Loch Basin LCT: 310A Swannay LCU – all this LCU;
- 310 Loch Basin LCT: 310B West Mainland LCU – northern part of this LCU out to 7 km;
- 313 Rolling Hill Fringe LCT: 313A Hillside LCU – northern part of this LCU out to 4 km;
- 313 Rolling Hill Fringe LCT: 313B West Mainland LCU – northern part of this LCU out to 7 km and
- 314 Moorland Hills LCT: 314A West Mainland LCU – northern part of this LCU out to 7 km.

6.14.6 These significant effects would extend out to a radius of approximately 7 km. The effect of the Proposed Development on all other LCTs / LCUs during construction and operation would be not significant.

6.14.7 The assessment of effects on coastal character found that significant effects, during the construction and operational phases would arise as a result of the Proposed Development within parts of four of the RCCAs that occur in the Study Area. Those parts of the RCCAs and the constituent LCCAs that would undergo significant effects are as follows with the remaining parts either not significantly affected or not affected:

- RCCA 10: Rousay North – LCCA 10a Scabra Head to Saviskaill Head;
- RCCA 11: Rousay South – LCCA 11a Eynhallow and LCCA 11b Scabra to Tratland;
- RCCA 26: Marwick Head and Bay of Skaill – LCCA 26c Marwick Head and LCCA 26d Birsay Bay; and
- RCCA 27: Brough Head to Costa Head – LCCA 27c Costa Head.

6.14.8 These significant effects would extend out to a radius of approximately 7 km. The effect of the Proposed Development on all other RCCAs / LCCAs during construction and operation would be not significant.

6.14.9 A detailed assessment of the effects on the special qualities of the Hoy and West Mainland NSA is presented in **Appendix 6.2**. This found that the Proposed Development would not give rise to any significant effects on the SLQs attributed to this area. While the Proposed Development would have effects on two of the 11 SLQs of the NSA, the effects would not be significant. The other nine SLQs would remain unaffected, and the objectives of the designation and the overall integrity of the NSA as a whole would not be compromised.

Visual Effects

6.14.10 The assessment of the effects of the Proposed Development has found that significant effects would occur during the construction and operational phases at 13 of the 19 viewpoints. The viewpoints significantly affected during the construction and operational phases all lie within a 7 km radius of the Proposed Development and include;

- VP1: A966, Loch of Swannay;
- VP2: A966, Hundland Road junction;
- VP3: Vinquin Hill, Costa;
- VP4: Mid Hill;
- VP5: Kirbuster, Loch of Hundland;
- VP6: Brough of Birsay;
- VP7: A967, Birsay Community Hall;
- VP8: A967, Twatt;

- VP9: A967, near Rosemire;
- VP13: B9057 north-west of Dounby;
- VP15: Vestra Fiold;
- VP16: A966 west of Abune the Hill; and
- VP17: Westside, Rousay.

6.14.11 The viewpoints would mostly be affected owing to either their close proximity to the construction works and operation of the Proposed Development, or their greater sensitivity. While all the representative viewpoints within a 7 km radius would be significantly affected, that is not to say that all visual receptors within this radius would also be significantly affected, especially as there are large patches with no or low-level visibility. All viewpoints beyond this 7 km radius would not be significantly affected as a result of the Proposed Development.

Cumulative Effects

6.14.12 The most relevant wind farms to the cumulative assessment are operational and consented, with the Proposed Development located in close proximity to both operational Burgar Hill Wind Farm and consented Costa Head Wind Farm.

6.14.13 The assessment of cumulative effects on landscape and coastal character has identified that significant cumulative effects would arise as a result of the addition of the Proposed Development within parts of five of the LCTs / LCUs that occur in the Study Area. Those parts of the LCTs / LCUS that would undergo significant cumulative effects are as follows:

- 302 Inclined Coastal Pasture LCT: 302A Evie LCU – localised patches north of Burgar Hill;
- 306 Coastal Hills and Heath LCT: 306A North Coast LCU – the north-eastern part of this LCU;
- 310 Loch Basin LCT: 310A Swannay LCU – all this LCU;
- 310 Loch Basin LCT: 310B West Mainland LCU - northern part of this LCU out to 4 km; and
- 314 Moorland Hills LCT: 314A West Mainland LCU - northern part of this LCU out to 4 km.

6.14.14 These significant cumulative effects would extend out to a radius of approximately 4 km. The cumulative effect of the Proposed Development on all other LCTs / LCUs would be not significant and there would be no significant cumulative effects on the RCCAs / LCCAs or on the SLQs of the Hoy and West Mainland NSA.

6.14.15 The assessment of cumulative effects on visual amenity has identified that significant cumulative effects would arise as a result of the addition of the Proposed Development in respect of the following two representative viewpoints which lie within 2 km radius of the Proposed Development:

- VP1: A966, Loch of Swannay; and
- VP3: Vinquin Hill, Costa.

6.14.16 This assessment has also considered the in-combination cumulative effects that the Proposed Development, in combination with all other existing and proposed wind farms would give rise to, with the finding that the extent of significant in-combination effects would correlate with the extent of significant in-conjunction effects, summarise above.

Visual Assessment of Visible Aviation Lighting

6.14.17 In **Appendix 6.3**, the visual effect of the turbine aviation lighting has been considered from three representative viewpoints. The assessment has considered the worst-case scenario in terms of assuming that the intensity of lighting experienced at the representative viewpoints would be 2,000cd, with an assessment also of the reduced intensity at 200cd that would be deployed in clear visibility at a range greater than 5 km.

Residential Visual Amenity Assessment

6.14.18 In **Appendix 6.4**, the Residential Visual Amenity Assessment (RVAA) has considered the impact of the Proposed Development on the visual amenity of 56 properties within a 2 km radius. The effect of the Proposed Development on all 56 properties would be significant. The magnitude of change on 32 properties would be medium-high, while on the remaining 24 properties it would be high. The high magnitude of change has meant that these 24 properties have been considered for a Step 4 Residential Visual Amenity Threshold Assessment. The conclusion of this Step 4 assessment is that whilst a high magnitude of change and major significant effect is predicted, the nature of the visual impact at 23 of these properties is not sufficiently adverse to be characterised as an overwhelming or overbearing effect on visual amenity. Residential Visual Amenity Threshold Assessment has, however, identified one especially close-range property where the effects have the potential to be overwhelming or overbearing, namely Property 2: Dale at a minimum of 599 m from the closest turbine.

Summary

6.14.19 In summary, the Proposed Development would give rise to significant effects on landscape and coastal character during the construction and operation of the Proposed Development, albeit contained within the localised extent of approximately 7 km. There would be no significant effects on the SLQs of the Hoy and West Mainland NSA, which lies beyond 10 km from the Proposed Development. The Proposed Development would give rise to significant effects on visual amenity in some locations out to approximately 7 km during the construction and operation of the Proposed Development (noting there are a number of viewpoints /areas within the 7 km which would not be significantly affected). While landscape and visual receptors beyond these ranges may gain views of the Proposed Development, these effects would not be significant. Furthermore, not all landscape and visual receptors within these ranges would be significantly affected, for example tracts of landscape where screening by landform occurs. Significant cumulative effects would arise in relation to landscape and visual receptors out to approximately 4 km.

6.14.20 All effects during the construction of the Proposed Development would be short-term and reversible and all effects during the operation of the Proposed Development would be long-term and reversible. All effects would be adverse in nature.

Table 6.10: Summary of Effects

Receptor	Sensitivity	Magnitude of Change	Significance of Effect
Landscape			
Agricultural Land	Medium-high	Medium-low	Moderate /minor (not significant)
296 Whaleback Islands LCT: 296A Eynhallow LCU	Medium-high	Medium No change	Moderate (significant) – western and central parts No effect – eastern parts
302 Inclined Coastal Pasture LCT: 302A Evie LCU	Medium-high	Medium-high Medium-low No change	Major / Moderate (significant) – localised part to north of Burgar Hill Wind Farm Moderate (not significant) – Aiker Ness No effect – remaining parts

Receptor	Sensitivity	Magnitude of Change	Significance of Effect
302 Inclined Coastal Pasture LCT: 302B Rousay LCU	Medium	Medium Low No change	Moderate (significant) – western and south-western parts Minor (not significant) – southern parts No effect – remaining parts
304 Isolated Coastal Knolls LCT: 304B Vishall Hill LCU	Medium	Medium-low No change	Moderate-minor (not significant) No effect
305 Enclosed Bays LCT: 305A Birsay LCU	Medium	Medium	Moderate (significant)
306 Coastal Hills and Heath LCT: 306A North Coast LCU	Medium-high	High	Major (significant)
306 Coastal Hills and Heath LCT: 306B Ravie Hill LCU	Medium-high	Medium No change	Moderate (significant) east-facing slopes of Marwick Head, north-east facing slopes of Ravie Hill and east facing slopes of the northern part of Marwick No effect – remaining parts
306 Coastal Hills and Heath LCT: 306C Vestra Fiold LCU	Medium	Medium No change	Moderate (significant) – north and north-east facing slopes No effect – remaining parts
306 Coastal Hills and Heath LCT: 306E Rousay LCU	Medium	Medium No change	Moderate (significant) – southern part No effect – northern part
307 Cliffs LCT: 307A Marwick Head LCU	Medium	Medium	Moderate (significant)
309 Peatland Basin LCT: 309A Hillside LCU	Medium	Medium-high	Moderate (significant)
309 Peatland	Medium	Medium-low	Moderate / Minor (not

Receptor	Sensitivity	Magnitude of Change	Significance of Effect
Basin LCT: 309C Rousay LCT		No change	significant) No effect
310 Loch Basin LCT: 310A Swannay LCU	Medium-high	High	Major (significant)
310 Loch Basin LCT: 310B West Mainland LCU	Medium-high	High / Medium-high / Medium Medium-low No change	Major / Moderate (significant) – out to approximately 7 km Moderate (not significant) – remaining parts No effect – remaining parts
313 Rolling Hill Fringe LCT: 313A Hillside LCU	Medium	High Medium-low No change	Major / Moderate (significant) – out to approximately 4 km Moderate / Minor (not significant) – central part No effect -southern part
313 Rolling Hill Fringe LCT: 313B West Mainland LCU	Medium	High / Medium-high / Medium Medium-low / Low No change	Major / Moderate or Moderate (significant) -out to approximately 7 km Moderate / Minor (not significant) – remaining parts No effect – remaining parts
314 Moorland Hills LCT: 314A West Mainland LCU	Medium	Medium-high / Medium Medium-low / Low No change	Moderate (significant) – out to approximately 7 km Moderate / Minor or Minor (not significant) – remaining parts No effect – remaining parts
314 Moorland Hills LCT: 314D Rousay LCU	Medium	Medium Medium-low No change	Moderate (not significant) - south-west facing slopes of Ward Hill and Swarta Fiold Minor (not significant) – remaining parts No effect – remaining parts
RCCA 10: Rousay North - LCCA 10a	Medium	Medium No change	Moderate (significant) – southern part

Receptor	Sensitivity	Magnitude of Change	Significance of Effect
Scabra Head to Saviskaill Head			No effect – northern part
RCCA 11: Rousay South – LCCA 11a Eynhallow	Medium	Medium No change	Moderate (significant) – western parts No effect – eastern parts
RCCA 11: Rousay South – LCCA 11b Scabra to Tratland	Medium	Medium	Moderate (significant)
RCCA 11: Rousay South – LCCA 11b Tratland to Point of Avelshay	Medium	Medium – low No change	Moderate / Minor (not significant) No effect
RCCA 12: Egilsay and Wyre	Medium	Medium No change	Moderate (not significant) - Wyre No effect - Egilsay
RCCA 26: Marwick Head and Bay of Skaill – LCCA 26c Marwick Head	Medium	Medium	Moderate (significant)
RCCA 26: Marwick Head and Bay of Skaill – LCCA 26d Birsay Bay	Medium	Medium	Moderate (significant)
RCCA 27: Brough Head to Costa Head - 27a Brough of Birsay	Medium	Medium / Medium-low No change	Moderate or Moderate / Minor (not significant) No effect
RCCA 27: Brough Head to Costa Head - 27b Point of Buckquoy to Crooie;	Medium	Medium / Medium-low No change	Moderate or Moderate / Minor (not significant) No effect
RCCA 27: Brough Head to Costa Head - LCCA 27c Costa Head.	Medium	Medium / Medium-low No change	Moderate or Moderate / Minor (not significant) No effect
Viewpoints			

Receptor	Sensitivity	Magnitude of Change	Significance of Effect
VP1: A966, Loch of Swannay	High	High	Major (significant)
VP2: A966, Hundland Road junction	High	High	Major (significant)
VP3: Vinquin Hill, Costa	Medium-high	High	Major (significant)
VP4: Mid Hill	Medium-high	Medium	Moderate (significant)
VP5: Kirbuster, Loch of Hundland	Medium-high	High	Major (significant)
VP6: Brough of Birsay	Medium-high	Medium	Moderate (significant)
VP7: A967, Birsay Community Hall	Medium-high	Medium-high	Major / moderate (significant)
VP8: A967, Twatt	Medium-high	Medium-high	Major / moderate (significant)
VP9: A967, near Rosemire	Medium-high	Medium	Moderate (significant)
VP10: A967, near Queena	Medium-high	Medium-low	Moderate (not significant)
VP11: Ring of Brodgar	High	Medium-low	Moderate (not significant)
VP12: Vishall Hill	Medium	Low	Minor (not significant)
VP13: B9057 north-west of Dounby	Medium-high	Medium-high	Major / moderate (significant)
VP14: Skara Brae	High	Low	Moderate / minor (not significant)
VP15: Vestra Fiold	Medium-high	Medium	Moderate (significant)
VP16: A966 west of Abune the Hill	Medium-high	Medium-high	Major / moderate (significant)
VP17: Westside,	Medium-high	Medium	Moderate (significant)

Receptor	Sensitivity	Magnitude of Change	Significance of Effect
Rousay			
VP18: Hillock Road, Shapinsay	Medium-high	Low	Moderate / minor (not significant)
VP19: Ward Hill, Hoy	High	Low	Moderate / minor (not significant)

Table 6.11: Summary of Cumulative Effects

Receptor	Sensitivity	Cumulative Magnitude of Change	Cumulative Significance of Effect
Landscape			
296 Whaleback Islands LCT: 296A Eynhallow LCU	Medium	Medium No change	Moderate (not significant) – south-western and central parts No effect – north-eastern parts
302 Inclined Coastal Pasture LCT: 302A Evie LCU	Medium	Medium-high No change	Moderate (significant) – north of Burgar Hill Wind Farm No effect – remaining parts
302 Inclined Coastal Pasture LCT: 302B Rousay LCU	Medium	Medium Medium-low No change	Moderate (not significant) – Westness to Frostoft Moderate / Minor (not significant) – remaining parts No effect
306 Coastal Hills and Heath LCT: 306A North Coast LCU	Medium-high	Medium-high Medium-low No change	Major / Moderate (significant) – north-eastern part Moderate (not significant) – remaining parts No effect
310 Loch Basin LCT: 310A	Medium-high	Medium-high	Major / Moderate (significant)

Receptor	Sensitivity	Cumulative Magnitude of Change	Cumulative Significance of Effect
Swannay LCU			
310 Loch Basin LCT: 310B West Mainland LCU	Medium-high	Medium Medium-low / Low No change	Moderate (significant) – northern part out to approximately 4km Moderate / Minor (not significant) – remaining parts No effect – remaining parts
313 Rolling Hill Fringe LCT: 313B West Mainland LCU	Medium	Medium-low / Low No change	Moderate / Minor or Minor (not significant) No effect
314 Moorland Hills LCT: 314A West Mainland LCU	Medium	Medium-high Medium-low / Low No change	Moderate (significant) - northern part out to approximately 4km Moderate / Minor (not significant) – remaining parts No effect – remaining parts
314 Moorland Hills LCT: 314D Rousay LCU	Medium	Medium Medium-low No change	Moderate (not significant) – Westness to Frostoft Moderate / Minor (not significant) – remaining parts No effect – remaining parts
RCCA 11: Rousay South – LCCA 11a Eynhallow and LCCA 11b Scabra to Tratland	Medium	Medium Medium-low No change	Moderate (not significant) Moderate / Minor (not significant) No effect
Viewpoints			
VP1: A966, Loch of Swannay	Medium-high	Medium	Moderate (significant)

Receptor	Sensitivity	Cumulative Magnitude of Change	Cumulative Significance of Effect
VP2: A966, Hundland Road junction	Medium-high	Medium-low	Moderate (not significant)
VP3: Vinquin Hill, Costa	Medium-high	Medium-high	Major / moderate (significant)
VP4: Mid Hill	Medium-high	Medium-low	Moderate (not significant)
VP5: Kirbuster, Loch of Hundland	Medium-high	Medium-low	Moderate (not significant)
VP16: A966 west of Abune the Hill	Medium-high	Medium-low	Moderate (not significant)
VP17: Westside, Rousay	Medium-high	Medium-low	Moderate (not significant)

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