

# **Pentland floating offshore wind farm**

## Volume 2: Offshore EIAR

Chapter 16: Seascape, Landscape and  
Visual Amenity

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## OFFSHORE EIAR (VOLUME 2): MAIN REPORT

### CHAPTER 16: SEASCAPE, LANDSCAPE, AND VISUAL AMENITY

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## GLOSSARY OF PROJECT TERMS

Key Terms	Definition
Dounreay Tri Floating Wind Demonstration Project (the 'Dounreay Tri Project')	The 2017 consented project that was previously owned by Dounreay Tri Limited (in administration) and acquired by Highland Wind Limited (HWL) in 2020. The Dounreay Tri Project consent was for two demonstrator floating Wind Turbine Generators (WTGs) with a marine licence that overlaps with the Offshore Development, as defined. The offshore components of the Dounreay Tri Project consent are no longer being implemented.
Highland Wind Limited	The Developer of the Project (defined below) and the Applicant for the associated consents and licences.
Landfall	The point where the offshore export cable(s) from the PFOWF Array Area, as defined, will be brought ashore.
Offshore Export Cable(s)	The cable(s) that transmits electricity produced by the WTGs to landfall.
Offshore Export Cable Corridor (OECC)	The area within which the offshore export cable(s) will be located.
Offshore Site	The area encompassing the PFOWF Array Area and OECC, as defined.
Onshore Site	The area encompassing the PFOWF Onshore Transmission Infrastructure, as defined.
Pentland Floating Offshore Wind Farm (PFOWF) Array and Offshore Export Cable(s) (the 'Offshore Development')	All offshore components of the Project (WTGs, inter-array and offshore export cable(s), floating substructures, and all other associated offshore infrastructure) required during operation of the Project, for which HWL are seeking consent. The Offshore Development is the focus of this Environmental Impact Assessment Report.
PFOWF Array	All WTGs, inter-array cables, mooring lines, floating sub-structures and supporting subsea infrastructure within the PFOWF Array Area, as defined, excluding the offshore export cable(s).
PFOWF Array Area	The area where the WTGs will be located within the Offshore Site, as defined.
PFOWF Onshore Transmission Infrastructure (the 'Onshore Development')	All onshore components of the Project, including horizontal directional drilling, onshore cables (i.e. those above mean low water springs), transition joint bay, cable joint bays, substation, construction compound, and access (and all other associated infrastructure) across all project phases from development to decommissioning, for which HWL are seeking consent from The Highland Council.
PFOWF Project (the 'Project')	The combined Offshore Development and Onshore Development, as defined.

## ACRONYMS AND ABBREVIATIONS

DTDOWP	Dounreay Tri Demonstration Offshore Wind Project
EIA	Environmental Impact Assessment
GDL	Garden and Designed Landscape
GIS	Geographical Information System
GLVIA 3	Guidelines for Landscape and Visual Impact Assessment Third Edition
HAT	Highest Astronomical Tide
HWL	Highland Wind Limited
IPCC	International Panel on Climate Change
KM	Kilometre
LCCA	Local Coastal Character Area
LCT	Landscape Character Types
LCU	Landscape Character Unit
LVIA	Landscape and Visual Impact Assessment
MS-LOT	Marine Scotland Licensing Operations Team
NCR1	National Cycle Route 1
NM	Nautical Mile
NRTE	Naval Reactor Test Establishment
NSA	National Scenic Area
OECC	Offshore Export Cable Corridor
PFOWF	Pentland Firth Offshore Wind Farm
PVR	Principal Visual Receptor
RCCA	Regional Coastal Character Area
SCT	Seascape Character Types
SHE-T	Scottish Hydro Electric - Transmission
SLA	Special Landscape Area
SLQ	Special Landscape Quality
SLVIA	Seascape, Landscape and Visual Impact Assessment
SNH	Scottish Natural Heritage
THC	The Highland Council
WCS	Worst Case Scenario
WLA	Wild Land Area
WLQ	Wild Land Quality
ZTV	Zone of Theoretical Visibility



## 16 SEASCAPE, LANDSCAPE, AND VISUAL AMENITY

### 16.1 Introduction

The potential impacts of the Pentland Floating Offshore Wind Farm (PFOWF) Array during construction, operation and maintenance and decommissioning on Seascape, Landscape, and Visual Amenity receptors are assessed in this chapter. The chapter also includes an assessment of the potential cumulative impacts with other relevant projects.

Only an assessment of impacts from the PFOWF Array are considered within this chapter. No effects on Seascape, Landscape, and Visual Amenity receptors pertaining to the offshore export cable(s) (located within the Offshore Export Cable Corridor [OECC]) are identified and thus are not assessed within this chapter.

The assessment has been undertaken by Optimised Environments Ltd (OPEN). Further competency details of the Project Team, including lead authors for each chapter, are provided in Volume 3: Appendix 1.1: Details of the Project Team of this Offshore Environmental Impact Assessment Report (Offshore EIAR).

The assessment has been prepared in accordance with the Landscape Institute's 'Guidelines for Landscape and Visual Impact Assessment Third Edition (Landscape Institute, 2013).

Table 16.1 below provides a list of all the supporting studies which relate to the Seascape, Landscape, and Visual Impact Assessment (SLVIA). All supporting studies are appended to this EIAR.

Table 16.1 Supporting studies

Details of study	Locations of supporting studies
SLVIA Methodology	Offshore EIAR (Volume 3): Appendix 16.1
Assessment of Effects on the Special Landscape Qualities of Kyle of Tongue National Scenic Area	Offshore EIAR (Volume 3): Appendix 16.2
Assessment of Effects on the Special Landscape Qualities of Hoy and West Mainland National Scenic Area	Offshore EIAR (Volume 3): Appendix 16.3
Assessment of Effects on Wild Land Area 39	Offshore EIAR (Volume 3): Appendix 16.4
Assessment of Effects on Wild Land Area 41	Offshore EIAR (Volume 3): Appendix 16.5
Night-time Visual Impact Assessment	Offshore EIAR (Volume 3): Appendix 16.6
Onshore Wind Energy Supplementary Guidance Assessment	Offshore EIAR (Volume 3): Appendix 16.7
Visibility Frequency Data	Offshore EIAR (Volume 3): Appendix 16.8
SLVIA Viewpoints (NatureScot): SLVIA Photographs, Photomontages, and Wirelines from each of the respective viewpoints displayed to NatureScot Standards: <i>Figures 16.31a - 16.46c</i> .	Offshore EIAR (Volume 4): Appendix 16.9a
SLVIA Viewpoints (The Highland Council): SLVIA Photographs, Photomontages, and Wirelines from each of the respective viewpoints displayed to The Highland Council Standards: <i>Figures 16.47a - 16.62a</i> .	Offshore EIAR (Volume 4): Appendix 16.9b
SLVIA Visual Materials (excluding viewpoints): Figures showing plans of the SLVIA Study Area, landscape receptors, visual receptors and ZTVs of the Offshore Development on its own and in combination with other cumulative windfarms: <i>Figures 16.1 -16.30</i> and Additional Requested Wirelines: <i>Figures 16.63a -16.67b</i> .	Offshore EIAR (Volume 4): Appendix 16.9c

## 16.2 Legislation, Policy and Guidance

The following relevant legislation, policy and guidance relating to SLVIA was used in the preparation of this chapter:

### 16.2.1 Legislation

- > *Town and County Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) (the 'EIA Regulations') – the relevant regulations for carrying out EIA.*

### 16.2.2 Policy

- > *Scottish Government (2020). Scottish Planning Policy – relevant national planning policy;*
- > *The Highland Council (2012). Highland wide Development Plan – relevant regional planning policy; and*
- > *The Highland Council (2018). Caithness and Sutherland Local Development Plan – relevant regional planning policy.*

### 16.2.3 Guidance

- > *Landscape Institute and the Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) – best practice guidance in respect of LVIA production;*
- > *Countryside Agency and Scottish Natural Heritage (2002). 'Guidelines for Landscape Character Assessment';*
- > *NatureScot (2021). Guidance – Assessing the cumulative landscape and visual impact of onshore wind energy development;*
- > *NatureScot (2020). Assessing the Impacts on Wild Land: Technical Guidance – best practice guidance in respect of wild land assessment;*
- > *Scottish Natural Heritage (2018-2019). Draft Guidance for Assessing the Effects on Special Landscape Qualities;*
- > *Scottish Natural Heritage (2018). Guidance Note – Coastal Character Assessment – Version 1a;*
- > *Scottish Natural Heritage (2017). Visual Representation of Wind Farms Guidance – Version 2.2;*
- > *The Highland Council (2016). Visualisation Standards for Wind Energy Developments; and*
- > *Landscape Institute (2021). Technical Guidance Note 02/21 Assessing landscape value outside national designations.*

## 16.3 Scoping and Consultation

Scoping and 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 Offshore Development and the requirements of the regulators, their advisors and other interested stakeholders.

Relevant comments from the EIA Scoping Opinion, Scoping Opinion Addendum and other consultation specific to SLVIA provided by Marine Scotland Licencing Operations Team (MS-LOT) on behalf of Scottish Ministers, The Highland Council, NatureScot and Marine Scotland are summarised in Table 16.2 below, which provides a high-level response on how these comments have been addressed within the EIAR.

The Pre-Application Consultation (PAC) Report, which accompanies this application, further details how feedback on Seascape, Landscape, and Visual Amenity provided from the public during public consultation events has been considered for the Offshore Development.



Table 16.2 Summary of consultation responses specific to SLVIA

Consultee	Comment/ Issue Raised	Offshore Development Approach and Section ID
<b>Scoping Opinion</b>		
NatureScot	<b>General</b> <i>"There is a large amount of wind and other energy production infrastructure in this area – including pylons and the Dounreay facility – which gives the landward area an existing energy production context. Notwithstanding this the vertical scale of the turbines, each located on a yellow floating platform / support structure, heightens their visibility as an unfamiliar and uncharacteristic feature in the remote seascape of the Pentland Firth."</i>	The baseline influence of development across the landward area and lack of development across the seaward area are taken into account in the assessments in sections 16.7 and 16.8.
	<b>Study Area</b> <i>"A 50km ZTV and study area would not generally be extensive enough for turbines of this height so close to the coast. However, we have considered the coverage of the 50km ZTV and the coastal alignment and topography and judged that this is acceptable for this proposal. We caveat this with a note that we might request further details subsequently should a very sensitive receptor / context become apparent."</i>	Noted. The SLVIA Study Area has been set at a 50 km radius following agreement from all statutory consultees. No additional receptors beyond this radius have been requested by statutory consultees for inclusion in this SLVIA.
	<b>National Landscape Designations</b> <i>"The SLVIA should consider likely effects on the Special Qualities (SQ) of Kyle of Tongue National Scenic Area (NSA) and Hoy and West Mainland NSA. With separation distances from the proposed site of 23km and 30km respectively. We advise that a precautionary approach is taken and effects on both NSAs are considered. We also advise that cumulative effects and effects of aviation lighting are included in the scenic qualities assessment."</i>	The SLVIA considers the effects, cumulative effects and lighting effects of the Offshore Development on the Special Landscape Qualities of the Kyle of Tongue NSA and Hoy and West Mainland NSA. The detailed assessment is presented in Offshore EIAR (Volume 3) Appendix 16.2 and Appendix 16.3.
	<b>Local Landscape Designations</b> <i>"The SLVIA should consider the likely effects on Farr Bay, Strathy and Portskerra Special Landscape Area (SLA) and on Dunnet Head SLA."</i>	The SLVIA considers the effects of the Offshore Development on Farr Bay, Strathy and Portskerra SLA and on Dunnet Head SLA. The assessment is presented in sections 16.7 and 16.8.
	<b>Wild Land Areas</b>	The SLVIA considers the effects of the Offshore Development on East Halladale Flows WLA in Offshore EIAR

Consultee	Comment/ Issue Raised	Offshore Development Approach and Section ID
	<p><i>"A wild land assessment should be carried out for East Halladale Flows Wild Land Area (WLA 39), located just to the south of the project site. We also advise that a wild land assessment is carried out for Hoy Wild Land Area (WLA 37). Both assessments should take into account the effects of aviation lighting on the wildness qualities."</i></p>	<p>(Volume 3): Appendix 16.4 and on Hoy WLA in Offshore EAIR (Volume 3): Appendix 16.5, with consideration given to the effects of aviation lighting.</p>
	<p><b>Landscape Character</b></p> <p><i>"Effects on the following Landscape Character Types (LCTs) (SNH / NatureScot Landscape Character Assessment 2019) should be considered in the SLVIA:</i></p> <p><i>Sweeping Moorland and Flows LCT</i></p> <p><i>Farmed Lowland Plain LCT</i></p> <p><i>High Cliffs and Sheltered Bays LCT</i></p> <p><i>Sandy Bays/ Beaches and Dunes LCT: Strathy Bay LCU</i></p> <p><i>Coastal Crofts and Small Farms LCT: Melvich LCU.</i></p> <p><i>We note and agree with the proposal (Table 9-10) to omit Halladale LCU and Strathy LCU from the assessment."</i></p>	<p>The SLVIA considers the effects of the Offshore Development on all the LCTs / LCUs listed. The assessment is presented in sections 16.7 and 16.8 and takes into account NatureScot's Landscape Character Assessment 2019.</p>
	<p><b>Coastal Character</b></p> <p><i>"The SLVIA should include the following regional coastal character areas (RCCAs) as detailed in Coastal Character Assessment – Orkney and North Caithness1:</i></p> <p><i>Scarfskerry and Dunnet Head Remote High Cliffs (RCCA 44)</i></p> <p><i>Brims Ness Rocky Coastline Open Sea Views (RCCA 46)</i></p> <p><i>Portskerra Remote High Cliffs (RCCA 47)</i></p> <p><i>Farr Point Remote High Cliffs</i></p> <p><i>There is also potential for significant effects on local coastal character areas (LCCAs) as shown in Orkney and North Caithness Coastal Character Assessment. In particular sections of coastal character and high sensitivity visual receptors extending between LCCAs 35 to 41 between Strathy and Strathy Point to Ness of Litter."</i></p>	<p>The SLVIA considers the effects of the Offshore Development on all the RCCAs listed. Sections 16.7 and 16.8 and takes into account Orkney and North Caithness Coastal Character Assessment and the LCCAs, where relevant. There are no RCCAs or LCCAs defined for the Sutherland coastline, only NatureScot's national level Seascape Character Types (SCT). For the purposes of the SLVIA, the Remote High Cliffs which covers most of the Sutherland coastline has been broken down into LCCAs as defined on Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c).</p>

Consultee	Comment/ Issue Raised	Offshore Development Approach and Section ID
	<p><b>Viewpoints and Visual Receptors</b></p> <p><i>“The proposed list of 8 viewpoints (Figure 9-17) and principle visual receptors noted in para 9.5.14 covers a good range of receptors. However, the final list is the responsibility of the landscape consultant and we advise that individual viewpoints should be micro-sited to show the worst case scenario. We defer to The Highland Council with regards to locally sensitive viewpoints and reserve the option to request further viewpoints if particular issues occur as the project progresses.”</i></p>	<p>Through discussions with The Highland Council (THC) four additional viewpoints have been included to represent views from the hinterlands of the Mainland of Scotland and through discussions with Orkney Islands Council two additional viewpoints have been included on the island of Hoy. No further viewpoints have been requested by other statutory consultees.</p>
	<p><b>Aviation Lighting Assessment</b></p> <p><i>“To accord with civil aviation and navigation requirements, the turbines and supporting structures will be lit in poor lighting conditions and at night. In our experience the lights will be clearly visible at this distance from the coastline as dominant, eye-catching, uncharacteristic features in this remote seascape. An assessment of the effect of hub-height lighting should be carried out for representative onshore viewpoints and sensitive receptors. In particular the assessment should consider the effects on the scenic and wild land qualities along the Caithness coast and on the ferry route from Scrabster to Orkney. We note (para 9.5.16) that there is no proposal to undertake a lighting assessment for remote views in the hours of darkness. However, we advise that a suitable viewpoint should be included within the East Halladale Flows WLA (possibly proposed viewpoint 1 Beinn Ratha).”</i></p>	<p>Offshore EIAR (Volume 3): Appendix 16.6 presents a detailed assessment of the effects of the lighting of the Offshore Development on four of the representative viewpoints and a high-level assessment on all the remaining representative viewpoints.</p>
	<p><b>Cumulative Assessment</b></p> <p><i>“A cumulative assessment should be carried out which includes all relevant offshore and onshore energy-related development and other large-scale developments in the study area, such as Sutherland SpaceHub. Scotwind N1 plan option and other developments within Table 9-8 should also be included. An up-to-date list of onshore wind farms should be obtained from The Highland Council and should include wind farms at scoping stage that are within 20km of the site.”</i></p>	<p>The cumulative assessment presented in Section 16.8. includes all relevant operational, consented and application stage developments within a 50 km radius of the Offshore Development. Scenario 3 has been included to cover potential effects with the future West Orkney Offshore Wind Farm, owing to its large scale and potential impacts. Marine Scotland – Licensing Operations Team (MS-LOT) have agreed to a 6 month cut-off date prior to submission for the inclusion of new cumulative developments in their email dated 6<sup>th</sup> December 2021.</p>

Consultee	Comment/ Issue Raised	Offshore Development Approach and Section ID
	<b>Visualisations</b> <i>"We agree with the suggestion (para 9.5.5) that they follow the agreed approach used for the Moray West Offshore Wind Farm SLVIA."</i>	Noted.
	<b>Design</b> <i>"We understand that the exact design of the yellow sub structure supporting the turbines is yet to be agreed. We welcome Figure 5-4 which illustrates the range of characteristic technologies and advise that where possible the maximum anticipated dimensions (124m x124m x 54.25m, para 9.5.1) should be indicated on the supporting visualisations."</i>	Noted. The floating foundation is included in the photomontages presented in Figures 16.31 to 16.37, Figures 16.40 and 16.44 (Offshore EIAR [Volume 4]: Appendix 16.9a) and Figures 16.47 to 16.53, and Figures 16.56 and 16.60 (Offshore EIAR [Volume 4]: Appendix 16.9b). The substructures will rise to a height of 30 m above sea level.
	<b>Seascape, landscape and visual interests</b> <i>The proposal is not part of a plan led approach (as recently undertaken through the Sectoral Marine Plan for Offshore Wind) and there are significant differences, in terms of turbine numbers and height, between the consented Doureay Tri project and the current proposal. Cumulative impacts with proposals coming forward for the ScotWind N1 plan option will require careful consideration.</i>	The assessment of effects and cumulative effects arising as a result of the Offshore Development is presented in Sections 16.7 and 16.8. Additionally, a comparative assessment of the consented Dounreay Tri Project and the Offshore Development is presented in Section 16.13. A cumulative assessment with ScotWind N1 (West Orkney Offshore Wind Farm) is presented in Section 16.13.
The Highland Council	<b>Visualisations</b> <i>"Photomontages should follow the Council's Visualisation Standards. Separate volumes of visualisations should be prepared to both Highland Council Standards and NatureScot guidance. These should be provided in hard copy. It would be beneficial for the Highland Council volume to be provided in an A3 ring bound folder for ease of use.</i> <i>All existing turbines must be re-rendered even if they appear to be facing the viewer in the photograph to ensure consistency."</i>	Visualisations have been prepared to comply with both THC and NatureScot visualisation standards. These are presented in Offshore EIAR (Volume 4): Appendix 16.9a and Offshore EIAR (Volume 4): Appendix 16.9b.
	<b>Cumulative Developments</b> <i>"We consider that you should undertake the cumulative assessment over a study area the same as the visual assessment, however, given the scale of the proposed turbines we would encourage that the study area to be a minimum 50km study area."</i>	The cumulative assessment presented in 16.8 includes all relevant developments within a 50 km radius of the Offshore Development. Consultation has been undertaken with MS-LOT and the cumulative list agreed upon with THC and NatureScot. MS-LOT have agreed to a 6 month cut-off date

Consultee	Comment/ Issue Raised	Offshore Development Approach and Section ID
	<p><i>We consider that the cumulative project list within the Scoping Report to be too limited but note the figure outlining cumulative projects is more expansive.</i></p> <p><i>Consultation should also be undertaken with Energy Consents and Deployment Unit and Marine Scotland as to schemes which are currently at Scoping Stage as these may have advanced at the same pace as your proposal. This should be agreed with the Planning Authority and NatureScot at the earliest possible opportunity."</i></p>	<p>prior to submission for the inclusion of new cumulative developments in their email dated 6<sup>th</sup> December 2021.</p>
	<p><b>Cumulative Impacts</b></p> <p><i>The development will further extend the number of proposals of this type in the surrounding area, necessitating appropriate cumulative impact. It is considered that cumulative impact will be a significant material consideration in the final determination of any future application. The study area for cumulative impacts should extend to a minimum of 50km. Given the cumulative impact of renewable energy in this area it is expected that the Applicant should present images for presentation within the Panoramic Digital Viewer deployed by the Council – see visualisation standards document. If the applicant wished to utilise this tool there maybe an associated cost per image to be inserted which should be discussed with the</i></p> <p><i>Council prior to submission. To view current or determined schemes in the Council's Panoramic Viewer please see the link below: <a href="http://www.highland.gov.uk/panoramicviewer">http://www.highland.gov.uk/panoramicviewer</a></i></p>	<p>The cumulative assessment presented in Section 16.8 includes all relevant developments within a 50 km radius of the Offshore Development. Currently no images have been prepared for the Panoramic Digital Viewer owing to the general absence of other cumulative developments within the same sector as the Offshore Development.</p>
	<p><b>Viewpoints</b></p> <p><i>"Viewpoints (VP) for the assessment of effects of a proposed development must be agreed in advance of preparation of any visuals with The Highland Council. We acknowledge that there will be some micro-siting of the viewpoints to avoid intervening screening of vegetation boundary treatments etc. We would recommend that the photographer has in their mind whether the VP is representative or specific and also who the receptors are when they are taking the photos it would be helpful. We have also found that if the photographer has a 3D model on a laptop when they go out on site it helps the orientation of the photography. It would be useful to use the viewpoints agreed for the earlier scheme in this location as a starting point.</i></p>	<p>The viewpoint list has been developed through discussions and agreement with THC and NatureScot. The viewpoints have been selected to represent a broad range of receptors, including recreational routes, and have been verified on site, with assessment undertaken using wirelines and photomontages.</p>

Consultee	Comment/ Issue Raised	Offshore Development Approach and Section ID
	<p><i>Please consult us on the viewpoint locations again once prior to work commencing in detail on the LVIA.</i></p> <p><i>The viewpoints should assess a broad range of receptors in the area and include those who are offshore as well as onshore. Consideration should be given to those receptors moving through the area as well and a sequential assessment should also be undertaken.</i></p> <p><i>The detailed location of viewpoints will be informed by site survey, mapping and predicted Zones of Theoretical Visibility. Failure to do this may result in abortive work, requests for additional visual material and delays in processing applications/consultation responses. Community Council's may request additional viewpoints and it would be recommended that any pre-application discussions with the local community takes this into account. The final list of viewpoints should be agreed with the Planning Authority.</i></p> <p><i>The purpose of the selected and agreed viewpoints shall be clearly identified and stated in the supporting information. For example, it should be clear that the VP has been chosen for landscape assessment, or visual impact assessment, or cumulative assessment, or sequential assessment, or to show a representative view or for assessment of impact on designated sites, communities or individual properties."</i></p>	
	<p><b>Study Area</b></p> <p><i>"Given the scale of the turbines we would encourage the study area to a minimum 50km study area. Given the size of the turbines and we would expect a that a detailed assessment of effects should be undertaken for the whole study area. We would welcome early view of wirelines to identify effects from individual viewpoints."</i></p>	<p>A 50 km SLVIA Study Area has been applied and relevant receptors within this radius assessed in Sections 16.7 and 16.8.</p>
	<p><b>Wild Land Area</b></p> <p><i>"We expect an assessment of the impact on Wild Land Areas to be included within the EIA given the proximity to a number of Wild Land Areas and the theoretical visibility of the scheme from within wild land areas. NatureScot will provide further advice on this matter but we would expect the 2020 guidance to be followed not the 2017 guidance."</i></p>	<p>The SLVIA considers the effects of the Offshore Development on East Halladale Flows WLA and on Hoy WLA, as requested by NatureScot in their scoping response dated 3<sup>rd</sup> March 2021. The assessment is presented in Offshore EIA (Volume 3): Appendix 16.4 and Offshore EIA (Volume 3): Appendix 16.5 and follows NatureScot's 2020 guidance.</p>



Consultee	Comment/ Issue Raised	Offshore Development Approach and Section ID
	<p><b>OWESG</b></p> <p><i>"We expect an assessment of the proposal against the criterion set out in the Council's Onshore Wind Energy Supplementary Guidance to be included within the LVIA chapter of the EIAR."</i></p>	An assessment of the Offshore Development against the OWESG criteria is presented in Offshore EIAR (Volume 3): Appendix 16.7.
	<p><b>Special Landscape Areas</b></p> <p><i>"An assessment of the impacts of the proposal on landscape should assess the impacts on any landscapes designated at a national and local scale. As part of this the impact on the Special Landscape Areas (SLA) must be undertaken using the SLA citations available from the Council's website."</i></p>	The SLVIA considers the effects of the Offshore Development on Farr Bay, Strathy and Portskerra SLA and on Dunnet Head SLA. The assessment is presented in sections 16.7 and 16.8 and references THC's SLA citations.
	<p><b>Aviation Lighting</b></p> <p><i>"The effect of the lighting should be assessed through the EIA process through a Lighting Impact Assessment. This is a matter that should be considered from all viewpoints. It should form part of the SLVIA chapter of the EIAR but should also be considered as part of the Wild Land Assessment. Further advice on aviation lighting is available from NATURESCOT. A more comprehensive list will be required and should include at least all viewpoints within designated landscapes, Special Landscape Areas and within Wild Land Areas. Further the assessment should consider all of the viewpoints which are sought through the assessment."</i></p>	Offshore EIAR (Volume 3): Appendix 16.6 presents a detailed assessment of the effects of the lighting of the Offshore Development on the representative viewpoints; Viewpoint 1: Beinn Ratha; Viewpoint 2: Strathy Point car park; Viewpoint 5: Sandside Head; and Viewpoint 10: A836 east of Forss. A high-level assessment of the effects of the lighting on all other representative viewpoints is also presented in Offshore EIAR (Volume 3): Appendix 16.6.
	<p><b>Recreational Routes</b></p> <p><i>When assessing the impact on recreational routes please ensure that all core paths, the national cycle network, long distance trails, and the North Coast 500 are assessed. It should be noted that these routes are used by a range of receptors.</i></p>	Routes with potential to undergo significant effects have been assessed in detail in Section 16.7 and 16.8.
	<p><b>Landscape Character Assessment</b></p> <p><i>The NATURESCOT 2019 landscape character assessment should be used.</i></p>	The NatureScot 2019 landscape character assessment is used as the basis of the assessment of effects on landscape character and is presented Section 16.7 and 16.8.

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	<p><b>Residential Visual Amenity</b></p> <p><i>We are content that residential visual amenity is assessed within the LVIA chapter.</i></p>	<p>The requirements for a Residential Visual Amenity Assessment are presented in the Landscape Institute's Technical Guidance Note 2/19 'Residential Visual Amenity Assessment' (RVAA). This recommends a 2 km radius as an appropriate study area within which to assess the effects on residential visual amenity. As the closest coastal edge is approximately 7.5 km from the closest southern edge of the PFOWF Array Area, there are no properties close enough to be considered in respect of reaching the threshold of 'overbearing' or 'overwhelming' effects. The SLVIA considers the effects of the Offshore Development on residential receptors through the assessment of representative viewpoints presented in Section 16.7 and 16.8.</p>
MS-LOT on behalf of Scottish Ministers	<p><i>"With regards to the study area, as defined in figure 9-12 of the Scoping Report, the Scottish Ministers advise that a minimum 50km study area is acceptable to assess the seascape, landscape and visual impacts for the Offshore Proposed Development. Both the Highland Council and NatureScot agree with this view. The Scottish Ministers highlight that NatureScot is content to accept a 50km study area on the basis that further details may be requested should a very sensitive receptor/context become apparent."</i></p>	<p>A 50 km SLVIA Study Area has been applied and relevant receptors within this radius assessed in Sections 16.7 and 16.8.</p>
	<p><i>"The Developer sets out the preliminary appraisal of the potential effects of the Offshore Proposed Development on coastal character within Table 9-9 of the Scoping Report. The Scottish Ministers agree with the representation of NatureScot that the four regional coastal character areas identified by the Developer are scoped in to the detailed assessment within the seascape, landscape and visual impact assessment ("SLVIA"). The Scottish Ministers highlight the NatureScot representation that there is potential for significant effects on local coastal character areas ("LCCAs") in particular between Strathy and Strathy Point to Ness of Litter. The Scottish Ministers note that the Developer proposes to reference LCCAs in the SLVIA and advises that the LCCAs highlighted by NatureScot are scoped in and fully considered."</i></p>	<p>The SLVIA considers the effects of the Offshore Development on the LCCAs of all the RCCAs listed. The assessment is presented in sections 16.7 and 16.8 and takes into account Orkney and North Caithness Coastal Character Assessment and the LCCAs where relevant.</p>

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	<i>"The Developer sets out the preliminary appraisal of the potential effects of the Offshore Proposed Development on landscape character within Table 9-10 of the Scoping Report. The Scottish Ministers agree with NatureScot that effects on the landscape character types listed in its representation must be considered in the SLVIA. Halladale Landscape Character Unit ("LCU") and Strathy LCU can be scoped out of the assessment."</i>	The SLVIA considers the effects of the Offshore Development on all the LCTs / LCUs listed. The assessment is presented in sections 16.7 and 16.8 and takes into account NatureScot's Landscape Character Assessment 2019.
	<i>"In Table 9-11 of the Scoping Report, the Developer considers the potential effects of the Offshore Proposed Development in respect of all landscape designations. The Scottish Ministers agree with the Developer that Farr Bay, Strathy and Portskerra Special Landscape Area ("SLA") and Dunnet Head SLA are included in the detailed assessment; however, advise that a precautionary approach is taken and effects on the special qualities of Kyle of Tongue National Scenic Area ("NSA") and Hoy and West mainland NSA must also be assessed within the SLVIA. In addition, cumulative effects and effects of aviation lighting must also be included in the scenic qualities assessment. This view is supported by NatureScot."</i>	The SLVIA considers the effects of the Offshore Development on Farr Bay, Strathy and Portskerra SLA and on Dunnet Head SLA. Kyle of Tongue NSA and Hoy and West Mainland NSA. The assessment is presented in sections 16.7 and 16.8 and considers cumulative effects and effects of aviation lighting.
	<i>"In Table 9-12 of the Scoping Report, the Developer summarises the preliminary appraisal of Wild Land Areas. The Scottish Ministers agree that East Halladale Flows Wild Land Area ("WLA") (39) is included in the assessment; however, advise that Hoy WLA (41) is also scoped in to the SLVIA. Both assessments must take into account the effects of aviation lighting on the wildness qualities. This view is supported by NatureScot."</i>	The SLVIA considers the effects of the Offshore Development on East Halladale Flows WLA and on Hoy WLA. The assessment is presented in sections 16.7 and 16.8 and considers the effects of aviation lighting.
	<i>"With regards to the viewpoints proposed in figure 9-7 and visual receptors proposed noted in section 9.5.14 of the Scoping Report, these must be agreed with the Highland Council as set out in its representation. The Scottish Ministers highlight the NatureScot advice that individual viewpoints should be micro-sited to show the worst case scenario. When assessing the impact on recreational routes, the Developer should ensure that all core paths, the national cycle network, long distance trails, and the North Coast 500 are assessed in line with the Highland Council's representation."</i>	The viewpoint list has been developed through discussions and agreement with THC and NatureScot. The viewpoints have been selected to represent a broad range of receptors, including recreational routes, and have been verified on site, with assessment undertaken using wirelines and photomontages. A detailed assessment is included in Sections 16.7 and 16.8 of the A836 / North Coast 500 / National Cycle Route 1.
	<i>"In relation to the lighting assessment, the Scottish Ministers advise that an assessment of the effect of hub-height and navigational lighting must be carried out from all viewpoints and sensitive receptors, as outlined in the Highland Council</i>	Offshore EIAR (Volume 3): Appendix 16.6 presents an assessment of the effects of the lighting of the Offshore Development on the representative viewpoints. A night-time

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	<i>representation. NatureScot provides further details in its representation on what this assessment should consider. The Scottish Ministers note that the Developer does not propose to undertake a lighting assessment for remote views in the hours of darkness; however, highlight NatureScot advice that a suitable viewpoint, possibly proposed viewpoint 1 Beinn Ratha, should be included in the East Halladale Flows WLA. The Scottish Ministers request this should be fully considered in the SLVIA."</i>	viewpoint at Beinn Ratha has been included in the assessment with altered daytime photography used to represent night-time effects.
	<i>"With regards to the cumulative assessment, the Scottish Ministers advise that this must assess the impact of the Proposed Development as a whole, including supporting infrastructure, and include all relevant offshore and onshore energy-related developments and other large-scale developments in the study area, including onshore wind farm developments at the scoping stage. The Scottish Ministers agree with NatureScot that the cumulative impacts with proposals coming forward for the ScotWind N1 plan option will require careful consideration. Further, the Scottish Ministers agree with the Highland Council and consider the list of projects proposed to be considered in the cumulative assessment to be too limited. The Scottish Ministers advise the Highland Council's online interactive wind turbine map, is used to identify any other relevant projects to be considered. The Scottish Ministers advise the Developer fully considers the NatureScot and Highland Council comments in relation to the cumulative assessment in the EIA Report."</i>	The cumulative assessment presented in Section 16.8 includes all relevant developments within a 50 km radius of the Offshore Development, including the ScotWind N1 plan option. Consultation has been undertaken with MS-LOT and the cumulative list agreed upon with THC and NatureScot. MS-LOT have agreed to a 6 month cut-off date prior to submission for the inclusion of new cumulative developments in their email dated 6 <sup>th</sup> December 2021.
	<i>"For the avoidance of doubt, the Scottish Ministers advise that the worst case design envelope parameters should be used in the visualisations. The Scottish Ministers direct the Developer to the representations from the Highland Council and NatureScot in relation to the standards and specifications for the presentation of the visual material and request that these are followed. The Highland Council highlight that separate visualisations should be prepared to both the Highland Council standards and NatureScot guidance."</i>	The SLVIA is based on the worst case Design Envelope and this is assessed in sections 16.7 and 16.8 and shown in the visualisations. Two sets of visualisations have been prepared to comply with THC and NatureScot standards.
	<i>"Finally, the Scottish Ministers advise the Developer considers all sources and guidance referred to in both the NatureScot and Highland Council representations to assist the SLVIA."</i>	All relevant sources and guidance are referenced throughout the SLVIA.

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<b>Pre-application Advice Pack</b>		
The Highland Council 7 <sup>th</sup> October 2020	<p><b>Seascape Character</b></p> <p><i>"The development would lie off-shore the SNH Seascape units of North Caithness-Pentland Firth and more specifically at the point where the character transitions from Type 1 Remote High Cliffs with Type 2 Mainland Rocky Coastline with Open Sea Views</i></p> <p><i>The Key Characteristics of the Seascape Unit include</i></p> <ul style="list-style-type: none"> <li><i>• tall cliffs particularly on headlands, interspersed with short sections of low rocky coastal edge with occasional beaches eg Sinclair's Bay;</i></li> <li><i>• views to Orkney Islands with Hoy especially visible in places;</i></li> <li><i>• gently rolling hinterland with extensive Caithness peatlands inland and farmland and crofting communities along coastal edge;'</i></li> </ul> <p><i>In relation to the development these are significant specifically with respect to the potential for tall offshore structures to affect the perception of scale and distance in the landscape particularly with regard to the height and prominence of high cliffs in Caithness and Hoy and to reduce appreciation of seaward views and the visual interconnection between the mainland and Orkney.</i></p> <p><i>Assessors should also consider the local regional effects which may arise from off-shore wind development being prominent in views from both the north and east coasts and any degree to which this contributes to an effect of Caithness not only having its centre dominated by wind energy generation, but also of being surrounded on its seaward boundaries. The characteristic of the county's landscape being one of open land and sky and seaward horizons has traditionally been valued and the incremental unpicking of this at a regional scale should be guarded against."</i></p>	<p>The SLVIA considers the effects and cumulative effects of the Offshore Development on the seascape and coastal character of Caithness and Hoy in sections 16.7 and 16.8. In respect of the concern that the centre of Caithness could become dominated by wind energy development, ZTVs, cumulative ZTVs and cumulative wirelines demonstrate the limited influence that the Offshore Development will have inland from the northern coast of Caithness, with closer range onshore wind farms having a much more notable influence. The limited influence is reduced further towards the east coast, from where the Offshore Development will occur beyond 40 km and in those patches where visibility will arise, will appear as a distant feature set behind closer-range and much more influential onshore wind farms. Inter-visibility between the Offshore Development and offshore wind farms off the east coast will be limited and even considering sequential effects the substantial separation distances will prevent any significant cumulative interactions arising.</p>
	<p><b>Lighting</b></p> <p><i>Lighting required for navigation and aviation safety has the potential to be prominent and bring new elements to the offshore view and should be included in assessment</i></p>	<p>Offshore EIAR (Volume 3): Appendix 16.6 presents an assessment of the effects of the lighting of the Offshore Development on the representative viewpoints.</p>

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	<p><b>Landscape Character</b></p> <p><i>HwLDP Policy 61 Landscape requires new development to reflect the landscape characteristics and special qualities identified in the relevant, recently refreshed and published (2019) SNH Landscape Character Assessments (LCAs). The LCAs are a starting point on which to base assessment of landscape and visual impact. It is important to set out who the visual receptors of the development are, what the landscape impacts are and how these two factors relate.</i></p>	<p>The SLVIA considers the effects of the Offshore Development on all relevant LCTs / LCUs. The assessment is presented in sections 16.7 and 16.8 and takes into account NatureScot's Landscape Character Assessment 2019.</p>
	<p><b>Landscape Sensitivity</b></p> <p><i>"The Council's Onshore Wind Energy Supplementary Guidance lists ten landscape and visual criteria that the Council use as a framework for assessing proposals. They are not absolute requirements but set out key considerations of the Council that the developer should be aware of and take account of in progressing assessment and design of the proposal. The Supplementary Guidance also contains a landscape sensitivity appraisal for Caithness. Whilst the Supplementary Guidance is for onshore wind energy, the developer should bear it in mind when developing and assessing their proposals. For example, in some receptor locations the offshore proposals will likely not only be experienced but also be perceived as adding to the overall pattern of wind energy development and may result also in cumulative effects. It is noted that the current proposal is significantly larger than the earlier, consented scheme in the same area. The Supplementary Guidance may assist in alerting the developer to some of these issues, especially in the context not only of the locale but also the wider sub-region.</i></p>	<p>An assessment of the Offshore Development against the OWESG criteria is presented in Offshore EIAR (Volume 3): Appendix 16.7.</p>
	<p><i>"Within your assessment, consideration of sensitive receptors will need to include those who reside in the area and those who visit it, with receptor locations particularly including areas of settlement, transport routes and visitor and recreational attractions and routes. The Caithness and Sutherland coast is an important tourist route as well as the location of many, complementary and inter-dependent settlements; it therefore comprises locations and routes from which a variety of receptors experience landscape and views. These include landward and seaward views. If you decide to proceed towards application then detailed information and assessment will be required in due course, in order to establish the significance of any impacts and you are encouraged throughout the process to</i></p>	<p>Viewpoints have been selected to represent a broad range of sensitive visual receptors and these are assessed in sections 16.7 and 16.8. The assessment is based on a Design Envelope as described at Section 16.5.4. An indicative layout has been prepared as the basis of this SLVIA and represents the worst case scenario. As part of the final design and layout, Highland Wind Limited will work with consultees to refine the layout.</p>



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	<i>explain the design iterations and how they have responded to assessment of impacts."</i>	
	<i>"Proposals must have regard to the citations for SLAs (particularly those for nearby Farr Bay, Strathy and Portskerra SLA and Dunnet Head SLA), that summarise key characteristics, qualities, sensitivities, and measures for enhancement."</i>	The SLVIA considers the effects of the Offshore Development on Farr Bay, Strathy and Portskerra SLA and on Dunnet Head SLA. The assessment is presented in sections 16.7 and 16.8 and references THC's SLA citations.
	<p><b>Visualisations</b></p> <p><i>"Visualisations should be provided that accord with the Council's latest Visualisation Standards for Wind Energy Developments. Assessments should cover impacts of all elements of the development, not just the turbines, where they are not covered under a separate application. Applicants are strongly encouraged to provide information on all aspects of their proposal as far as possible at application stage, including information on intended grid connection, in order that the Council has the fullest understanding of the scheme."</i></p>	Visualisations to THC standards are presented in Figures 16.47 to 16.62 and includes all relevant infrastructure that forms part of this application (Offshore EIAR [Volume 4]: Appendix 16.9b).
	<p><b>Visual Impact</b></p> <p><i>"The visual experience of the development would be deeply rooted in its relationship to the landscape and seascape, therefore its presence in views out to sea, in association with high sea cliffs have the potential to diminish the scenic value which people find here.</i></p> <p><i>In addition, offshore visibility of turbines will have to be considered in relation to onshore development, particularly in terms of sequential experience of wind energy from coastal routes and the effect of the road becoming perceived as a corridor between on and offshore developments. Again this needs to be considered in the local regional context of the effects on coastal routes on the east coast of Caithness, and ensure that this does not become a dominating feature of the county.</i></p> <p><i>Assessors should also consider the visual effect on the view from elevated locations where turbines may be seen to flow from land to sea in defiance of the boundary between the two.</i></p> <p><i>Aviation and navigation lighting will bring a new element into views, blurring the distinction between on and offshore spaces in hours of darkness and should be</i></p>	<p>The SLVIA considers the visual effects of the Offshore Development on the representative viewpoints. This assessment is presented in sections 16.7 and 16.8. This assessment considers coastal views as well as elevated inland views.</p> <p>Offshore EIAR (Volume 3): Appendix 16.6 presents an assessment of the effects of the lighting of the Offshore Development on the representative viewpoints.</p> <p>Cumulative effects of the Offshore Development in conjunction with onshore developments, including the existing Dounreay Nuclear Power Facility, is presented in Section 16.8.</p>

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	<p><i>included in assessment. Note also that 'hours of darkness' do not equate to 'night' and should be understood to include prime commuting times in the darker months.</i></p> <p><i>In regard to the onshore portion, as with respect to character, the development would require active high quality design to minimise adverse visual impacts both in terms of the scale and design of the installation itself and with regard to the cumulative effect with existing development in the Dounreay strip."</i></p>	
<b>Meetings</b>		
The Highland Council 28 <sup>th</sup> July 2021	OPEN provided an overview of the SLVIA methodology outlining the choice of the worst case scenario (WCS) to be represented either by six offshore wind turbine generators (WTGs) at 270 m or 10 offshore wind turbines at 192 m. THC advised that this approach would need to be supported by the provision of wirelines to show the difference between 6 Vs 10, to enable THC to agree WCS.	Indicative wirelines illustrating the comparison between the six WTG and ten WTG layouts were issued to THC to enable THC to agree WCS.
	THC agreed that the list of viewpoints presented in the Scoping Report were acceptable. It was advised that further consideration of inland areas would be required, with suggestions that viewpoints might include Causeymire WTGs from inland areas, and also other VPs where there might be visibility to Beatrice offshore wind farm and Moray offshore wind farms. A' Mhoine peninsula on Tongue, was also suggested as a potential viewpoint owing to the potential cumulative effect with the Sutherland Space Port.	Indicative wirelines for seven additional viewpoints were issued to THC for them to consider if they were required. A' Mhoine has been added as Viewpoint 13. Viewpoints from the A9 were discounted owing to very limited visibility and the stronger influence from closer range onshore wind farms. Wirelines are included in Figures 16.63 to 16.65 to illustrate the discounted viewpoints (Offshore EIAR [Volume 4]: Appendix 16.9c).
	THC advised that a 50 km buffer is considered acceptable for cumulative assessment. NatureScot advised that key considerations should include the Onshore Development, the Demo Project and the Sutherland Space Port.	A 50 km SLVIA Study Area has been applied for the cumulative assessment. This includes all relevant cumulative developments in this radius.
The Highland Council 23 <sup>rd</sup> September 2021	OPEN presented comparative wirelines of five WTGs at 300 m and ten WTGs at 192 m. OPEN advised the WCS would be the five WTGs at 300 m located as close to the closest north Caithness shore as possible within the array area. THC expressed concerns that the five larger WTGs might not always present the WCS, for example, from the Portskerra viewpoint where the larger number of WTGs could potentially have a more notable effect on the setting of the Orkney Islands. In order to counteract this issue, OPEN proposed to include a select number of additional	The project design has been refined to include an Array Area that is 50% smaller than previously proposed and the worst case scenario has been revised to seven WTGs at 300 m to ensure that the maximum number and maximum height of the WTGs is covered in the SLVIA.

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	visualisations to provide a 'control measure' in assessing the WCS. The viewpoints for the additional viewpoints are to be agreed with THC.	
	OPEN presented eight additional viewpoints including the A9 at Spittal and to the south of Bad a Cheo, Loch Calder, Hilliclay, Ben Dorrery, Ben Griam Beg, Ben Loyal and A Mhoine. Through a review of the wirelines, it was agreed that Ben Dorrery, Ben Griam Beg, Ben Loyal and A Mhoine should be included as representative viewpoint owing to the levels of visibility of the Offshore Development, but that the other proposed viewpoints should be discounted owing to very limited levels of visibility and greater influence from closer operational wind farms.	The effects of the Offshore Development on visual receptors at Ben Dorrery, Ben Griam Beg, Ben Loyal and A' Mhoine is presented in sections 16.6 and 16.7. and with visualisations presented in Figures 16.31 to 16.62 (Offshore EIAR [Volume 4]: Appendix 16.9a and Offshore EIAR [Volume 4]: Appendix 16.9b). The other viewpoints proposed by THC are not included in the detailed assessment and wirelines are presented in Figures 16.63 to 16.65 (Offshore EIAR [Volume 4]: Appendix 16.9c).
	NatureScot suggested that consideration should be given to including a sequential assessment from the A9.	Visibility of the Offshore Development from the A9 is limited such that significant effects relating to the Offshore Development will not arise and, therefore, a sequential assessment has not been included in the SLVIA.
	NatureScot expressed concerns regarding the hypothetical nature of the worst case scenario and how it might be misleading.	Additional visualisations have been included which illustrate the Array Area using a 3D box across to mark the extent of the area on the baseline photography.
	NatureScot requested that the Scotwind N1 proposal be represented in the cumulative wirelines by using an umbrella marker to indicate the horizontal extents.	Umbrella markers have been included on the cumulative wirelines to indicate the maximum extents of Scotwind N1, now referred to as West Orkney Offshore Wind Farm.
<b>E-mails</b>		
Orkney Islands Council 18 <sup>th</sup> November 2021	<i>"Having considered the areas of higher visibility within the ZTV, it would be beneficial to consider additional viewpoints at: A coastal viewpoint within the Hoy Area of Wild Land. Tor Ness at the south of Hoy (South Walls) which is on Core Path H8."</i>	Two additional viewpoints have been included in the list of representative viewpoints with visualisations presented in Figure 16.44 and 16.46 (Offshore EIAR [Volume 4]: Appendix 16.9a and Offshore EIAR [Volume 4]: Appendix 16.9b). A detailed assessment is presented in Sections 16.6 and 16.7 below.

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NatureScot 22 <sup>nd</sup> April 2022	<b><i>“Nighttime assessment – The proposed specification of lighting to be modelled at 200 as opposed to 2000 cd, does not reflect our Scoping Guidance. The worst case scenario of 2000 candela is required to be represented on any nighttime visualisations. This is in the context that the reduced intensity of lighting assumes that there will be a clear separation between very good weather conditions and very poor weather conditions. Weather conditions affecting artificial lighting intensity are more likely to be somewhere in between these extremes and a WCS of 2000 cd allows for this.”</i></b>	The visibility frequency data presented in Appendix 16.8 indicates that visibility is greater than 5 km for over 96% of the time. Visibility out at sea is likely to be more frequently less than 5 km than such land-based measurements suggested due to generally greater levels of moisture in the air over the sea, which tends to reduce visibility compared to the air directly over land. This data indicates that the aviation lights would be displayed at 2000 cd for less than 6% of the time. Despite the limited frequency at which the 2,000 cd lighting will be experienced, the visualisations for the four representative viewpoints show the lighting at an intensity of 2,000cd, as well as 200cd.
	<b><i>“In relation to our guidance for baseline nighttime photography, we do not support an approach which darkens existing daytime photography to represent nighttime (low level lighting) conditions. A key part of baseline photography at night is to understand the extent of dark skies and where existing artificial lighting forms part of the baseline landscape character, visual amenity and qualities of protected landscapes. To darken an existing daytime photograph would be to fabricate the baseline and undermine the basis of this assessment.”</i></b>  <b><i>“The assessment of effects on a WLA encourages an understanding of the baseline qualities, which promotes a methodology which is irrespective of the numbers of people visiting that resource. In this context we continue to request that Beinn Ratha is included as a viewpoint to be assessed at night with baseline photography and photomontage produced as per our guidance to aid both the assessment and the subsequent understanding of effects identified by consultees.”</i></b>	Night-time photography has been taken from the viewpoint on the summit of Beinn Ratha and photomontage prepared in line with NatureScot guidance. It is worth noting that, during three separate walks up this hill, twice in the daytime and once in the evening, no other walkers have been seen on this hill or surrounding tracks.
	<b><i>“NatureScot is a member of the Scottish Government’s Aviation Lighting Working Group (of which OPEN are also represented along with other consultants). At this stage there is no agreement in relation to nighttime lighting being a visual effect only, as OPEN suggests.”</i></b>	OPEN is actively involved in the Scottish Government’s Aviation Lighting Working Group and we accept that the findings have not yet been published. There was however some consensus at the last meeting (21st June 2022) that the perception of landform/ skylines at night is a relevant consideration, with perception being a component of visual effects. There was widespread agreement that you cannot

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		<p>undertake landscape character assessment at 30 minutes after official sunset, when the lights are switched on.</p> <p>To date the only formal recognition of the assessment that OPEN is making, is the Scottish Ministers' Decision for the Crystal Rig IV PLI. The Reporters concluded in their report at paragraph 4.141:</p> <p>"4.141 It can be seen from the summaries of evidence above that the parties differ as to whether the proposed aviation lighting would be a visual impact alone. We consider that without being able to see and fully appreciate the features of the landscape and the composition of views it is not possible to carry out a meaningful landscape character assessment. Neither do we accept the notion, as suggested by East Lothian Council, that a memory of a familiar view should be taken into account in an assessment of landscape impact. On this matter, we find that the proposed lighting is indeed a visual concern, as the applicant asserts."</p> <p>In the absence of guidance being available, we consider it is a reasonable and logical approach to adopt the findings of Scottish Ministers following a detailed Public Inquiry as this represents precedence.</p>
	<b>"Sequential assessment</b> - We agree with the scoping out of the A9 route as part of the Sequential Assessment."	Noted.
	<p><b>"WLA 39 East Halladale Flows – 12km to northern edge</b></p> <p><i>The scope of the WLA 39 is currently too narrow and does not reflect likely qualities that could be significantly affected by this proposal for 300m turbines within the Pentland Firth. We consider that the proposed development may have the potential to significantly affect 3 qualities (see below) and the WLA assessment should be informed by a further two assessment locations. Design mitigation should consider alternative scales of turbines in particular of lower heights, so that they appear more commensurate in height when viewed in combination cumulatively with onshore</i></p>	<p>The assessment of effects on the East Halladale Flows WLA presented in Offshore EIAR (Volume 3): Appendix 16.4, has been expanded to include the three qualities highlighted and has been informed by the two additional viewpoints.</p>

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	<p>wind energy (the existing turbines of which are significantly smaller along the north Sutherland / Caithness coastline)."</p> <p>Additional WLA assessment locations informed by wirelines from the following locations:</p> <ul style="list-style-type: none"> <li>•the trig point at Sean Airigh;</li> <li>•the area between Cnoc Bad Mhairtein and Cnoc an Fhuarain Bhain within the WLA to further explore effects on qualities.</li> </ul> <p>Qualities to be scoped in for further assessment potentially significantly affected:</p> <ul style="list-style-type: none"> <li>•An awe-inspiring simplicity of landscape at the broad scale, with a strong horizontal emphasis, 'wide skies' and few foci.</li> <li>•A remote discrete interior with limited access and a strong sense of solitude.</li> <li>•A remarkably open landscape with extensive visibility, meaning tall or high features in the distance are clearly visible</li> </ul>	<p>Wirelines from the suggested viewpoints are included as Figures 16.66 and 16.67 (Offshore EIAR [Volume 4]: Appendix 16.9c) and referenced in the assessment of effects on the East Halladale Flows WLA presented in Offshore EIAR (Volume 3): Appendix 16.4.</p> <p>All the qualities listed are included in the detailed assessment of effects on the East Halladale Flows WLA presented in Offshore EIAR (Volume 3): Appendix 16.4.</p>
<b>Scoping Opinion Addendum</b>		
The Highland Council	<p>The change in parameters of the development are noted. We would however welcome clarity to be presented in the Environmental Impact Assessment Report based upon the worst case scenario. Based upon the information in the Scoping Report Addendum, if the maximum rotor diameter and maximum hub height was employed, along with the revised depth above water of the floating substructure the overall tip height would exceed the 300m set out in Table 2.1.</p>	<p>Section 16.5.4 sets out the worst-case scenario which has been used as the basis of the SLVIA, in which the overall tip height of the WTGs is 300 m above HAT.</p>
Orkney Islands Council	<p>The main change with regard to visual and landscape impacts for Orkney are outlined in the PFOWF EIA Scoping Addendum Report. Thus, the report indicates that the likely changes on the Hoy and West Mainland NSA and Hoy Wild Land are not significantly different to those already assessed, so no further comment is provided.</p>	<p>Noted. A detailed assessment of the effects on the Hoy and West Mainland NSA and the Hoy WLA are presented in Offshore EIAR (Volume 3): Appendix 16.3 and Offshore EIAR (Volume 3): Appendix 16.5, respectively.</p>



Consultee	Comment/ Issue Raised	Offshore Development Approach and Section ID
<b>Consultation on PFOWF Cumulative Effects Assessment – Cumulative Projects List</b>		
The Highland Council  5th May 2022	<p><i>Having reviewed the submitted document, I would suggest the following projects are also included in the cumulative assessment:</i></p> <ul style="list-style-type: none"> <li>&gt; <i>Spacehub Sutherland (in all chapters of the EIAR not just the SLVIA section)</i></li> <li>&gt; <i>Slickly Wind Farm (at appeal stage therefore is technically “in planning”)</i></li> <li>&gt; <i>Hollandmey Wind Farm (application)</i></li> <li>&gt; <i>Cairnmorehill Wind Farm (previously refused but a revised proposal will be submitted prior to submission of the PFOWF)</i></li> <li>&gt; <i>Coglemoss Wind Farm (consented)</i></li> <li>&gt; <i>Wathegar Wind Farm 1</i></li> <li>&gt; <i>Wathegar Wind Farm 2</i></li> <li>&gt; <i>Camster Wind Farm</i></li> <li>&gt; <i>Camster Wind Farm 2</i></li> <li>&gt; <i>Burn of Whilk Wind Farm</i></li> <li>&gt; <i>Golticlay Wind Farm</i></li> <li>&gt; <i>Boulfruich Wind Farm</i></li> <li>&gt; <i>Ackron Wind Farm (recently withdrawn)</i></li> <li>&gt; <i>Armadale Wind Farm (recently submitted)</i></li> </ul> <p><i>I would also like to ensure that Strathy South Wind Farm listed in the table is the version submitted to Scottish Ministers in 2020 and granted consent in 2021.</i></p>	<p>All the projects listed are included in Figure 16.6 Cumulative Developments (Offshore EIAR [Volume 4]: Appendix 16.9c).</p> <p>These are shown where visible in the cumulative wirelines in Figures 16.31 to 16.62 (Offshore EIAR [Volume 4]: Appendix 16.9a and Offshore EIAR [Volume 4]: Appendix 16.9b), with the exception of the withdrawal of Ackron Wind Farm and the submission of Armadale Wind Farm, which were made after the 6 month cut-off date prior to submission for the inclusion of new cumulative developments.</p> <p>Table 16.16 lists out those cumulative developments which are of particular relevance to the cumulative assessment, to ensure that it is focused on key cumulative interactions and the identification of significant cumulative effects. As there is little inter-visibility between the majority of the projects listed and the Offshore Development, they have not been included in Table 16.16, with the exception of Spacehub Sutherland, which is relevant and is included. Strathy South Wind Farm listed in the table is the version submitted to Scottish Ministers in 2020 and granted consent in 2021</p>

## 16.4 Baseline Characterisation

This section presents an overview of the different coastal and landscape character types, designated landscapes, mapped interests and visual receptors to 'set the scene' for the SLVIA. Desk-based studies have been supplemented with on-site observations in terms of characteristics and features of the baseline environment that will be relevant to the detailed assessments. Baseline descriptions of all coastal, landscape and visual receptors with potential to be significantly affected are presented, along with an assessment of their sensitivity to the Offshore Development in Section 16.7. The scoping and consultation process, described in Section 16.3, has helped identify which landscape and visual receptors have potential to be significantly affected.

The assessment has been initiated through a desk study of the Pentland Firth Offshore Wind Farm (PFOWF) Array Area within which the main components are the offshore WTGs and their floating substructures, and the associated 50 km radius SLVIA Study Area around these components of the offshore infrastructure. This study has identified aspects of the seascape, landscape and visual resource that will need to be considered in the SLVIA including coastal and landscape character typology, designated landscapes, wild land, road routes, walking routes, settlements and cumulative developments.

The desk study has also utilised Geographic Information System (GIS) and Resoft Windfarm software to explore the potential visibility of the Offshore Development. The resultant ZTV diagrams, in Figures 16.6 to 16.13 (Offshore EIAR [Volume 4]: Appendix 16.9c), in conjunction with the wirelines and/or photomontages, in Figures 16.31 to 16.62 (Offshore EIAR [Volume 4]: Appendix 16.9a and Offshore EIAR [Volume 4]: Appendix 16.9b), have provided an indication of which landscape and visual receptors are likely to be important in the assessment.

Field surveys have been carried out across the landward part of the SLVIA Study Area, with the focus on those areas that are shown on ZTVs to gain theoretical visibility of the Offshore Development. The field survey has identified relevant seascape, landscape and visual receptors and an assessment has been carried out regarding their sensitivity to the Offshore Development. Representative viewpoints have also been identified and photography undertaken to present the baseline character and form the basis for photomontages of the Offshore Development. Field surveys have assisted the iterative process of defining the Design Envelope Parameters by highlighting the extents of actual visibility, the prominence of different parts of the Offshore Development and the relative sensitivity of surrounding receptors.

### 16.4.1 SLVIA Study Area

The focus of the SLVIA is the potential effects on coastal character, landscape character and visual receptors, arising as a result of the Offshore Development. For the purposes of the SLVIA, an SLVIA Study Area with a radius of 50 km is applied to determine the extent of potentially significant effects. The radius of this SLVIA Study Area is set 50 km from the boundary of the PFOWF Array Area, as shown in Figure 16.1 (Offshore EIAR [Volume 4]: Appendix 16.9c). The 50 km extent of the SLVIA Study Area is based on descriptions of the offshore infrastructure, good working knowledge of the area, and information drawn from the ZTV maps, as shown in Figures 16.6 to 16.13 (Offshore EIAR [Volume 4]: Appendix 16.9c). These sources have shown that visibility of the Offshore Development will be largely contained within the 50 km SLVIA Study Area, with visibility becoming increasingly patchy across the landward areas. Across the seaward areas, visibility will be more extensive, albeit with very few receptors in these remote seaward areas to experience visibility and with the PFOWF Array Area occupying an increasingly limited extent of the available view, as shown in the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The ZTVs illustrate the extent to which the Offshore Development will be theoretically visible across the SLVIA Study Area. This is based on screening by landform and does not take into account the additional screening from above ground features such as forest cover and buildings. The SLVIA Study Area is not intended to identify the outer limit to which the Offshore Development will be visible, but instead to ensure that an area is defined which covers all potential significant effects. Even within the outer extents of the 50 km SLVIA Study Area, the horizontal and vertical extents of the PFOWF Array Area will be relatively small and based on experience gained in relation to OWF elsewhere, significant effects are only likely to arise well within this range.

The following areas are referred to in this SLVIA:

- > **The Offshore Development:** All offshore components of the PFOWF Array and the offshore export cable(s) (Wind Turbine Generators (WTGs), inter-array and export cables, floating substructures and all other associated offshore infrastructure) required during operation of the project;
- > **Offshore Site:** Area encompassing the PFOWF Array Area and Offshore Export Cable Corridor (OECC), as defined below;
- > **PFOWF Array Area:** The area where the WTGs will be located within the Offshore Site;
- > **Offshore Export Cable Corridor (OECC):** The area within which the offshore export cable(s) will be located; and
- > **SLVIA Study Area** – an area of a 50 km radius around the PFOWF Array Area (as defined above) within which there is the potential for significant effects on landscape character and visual amenity to arise.

### 16.4.2 Sources of Information

A review was undertaken of the guidance and data relevant to this SLVIA and was used to give an overview of the baseline environment. The primary data sources used in the preparation of this chapter are listed below in Table 16.3.

Table 16.3 Summary of key sources of information pertaining to SLVIA

Title	Source	Year	Author
Ordnance Survey 1:50,000 Raster	Xodus, via emapsite: <a href="https://www.emapsite.com/">https://www.emapsite.com/</a>	2020/2021	Ordnance Survey
Ordnance Survey 1:250,000 Raster	OS OpenData	2021	Ordnance Survey
OS Terrain 5 Digital Terrain Model (DTM)	Emapsite: emapsite.com	2021	Ordnance Survey
Met Office Visibility Frequency Analysis Report	Met Office	2021 / 2022	Met Office
NatureScot Landscape Character Assessment	<a href="https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions">https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions</a>	2021	NatureScot
Coastal Character Assessment: Orkney and North Caithness	<a href="https://www.nature.scot/coastal-character-assessment-orkney-and-north-caithness">https://www.nature.scot/coastal-character-assessment-orkney-and-north-caithness</a>	2016	Scottish Natural Heritage
Scottish Natural Heritage Commissioned Report No. 374 The special qualities of the National Scenic Areas	<a href="https://www.nature.scot/doc/naturescot-commissioned-report-374-special-qualities-national-scenic-areas">https://www.nature.scot/doc/naturescot-commissioned-report-374-special-qualities-national-scenic-areas</a>	2010	Scottish Natural Heritage
Assessment of Highland Special Landscape Areas	<a href="https://www.highland.gov.uk/downloads/file/2937/assessment_of_highland_special_land_scape_areas">https://www.highland.gov.uk/downloads/file/2937/assessment_of_highland_special_land_scape_areas</a>	2011	The Highland Council
Wild Land Description - East Halladale Flows	<a href="https://www.nature.scot/sites/default/files/2021-06/Wild%20land%20Description%20East-Halladale-Flows-July-2016-39.pdf">https://www.nature.scot/sites/default/files/2021-06/Wild%20land%20Description%20East-Halladale-Flows-July-2016-39.pdf</a>	2017	Scottish Natural Heritage

Title	Source	Year	Author
Wild Land Description - Hoy	<a href="https://www.nature.scot/sites/default/files/2021-06/Wild%20land%20Description%20Hoy-July-2016-41.pdf">https://www.nature.scot/sites/default/files/2021-06/Wild%20land%20Description%20Hoy-July-2016-41.pdf</a>	2017	Scottish Natural Heritage
Highland wide Local Development Plan	<a href="https://www.highland.gov.uk/info/178/local_and_statutory_development_plans/199/highland-wide_local_development_plan">https://www.highland.gov.uk/info/178/local_and_statutory_development_plans/199/highland-wide_local_development_plan</a>	2012	The Highland Council
Caithness and Sutherland Local Development Plan	<a href="https://www.highland.gov.uk/downloads/file/19712/casplan_adopted">https://www.highland.gov.uk/downloads/file/19712/casplan_adopted</a>	2018	The Highland Council
Orkney Local Development Plan 2017	<a href="https://www.orkney.gov.uk/Service-Directory/O/Orkney-Local-Development-Plan.htm">https://www.orkney.gov.uk/Service-Directory/O/Orkney-Local-Development-Plan.htm</a>	2017	Orkney Islands Council
National Cycle Network	<a href="https://www.sustrans.org.uk/national-cycle-network/">https://www.sustrans.org.uk/national-cycle-network/</a>	2021	Sustrans
Guidelines for Landscape and Visual Impact Assessment Third Edition	Routledge, 2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN	2013	The Landscape Institute

### 16.4.3 Site Specific Surveys

Site surveys have been carried out across the SLVIA Study Area, with the focus on those parts of the SLVIA Study Area that are shown on ZTVs, to gain theoretical visibility of the Offshore Development. The site surveys have identified relevant coastal, landscape and visual receptors and an assessment has been carried out regarding their sensitivity to the Offshore Development. Representative viewpoints have also been identified and photography undertaken to present the baseline character. These photographs form the basis for photomontages of the Offshore Development. Site surveys have assisted the iterative process of the Offshore Development layout design by highlighting the extents of actual visibility, the prominence of the Offshore Development from coastal, landscape and visual receptors and the relative sensitivity of these surrounding receptors.

### 16.4.4 Baseline Description

The Baseline Description of the SLVIA records the existing conditions of the SLVIA Study Area. Establishing a baseline helps to gain an understanding of what makes the baseline environment distinctive, what its important characteristics are, and how it is changing prior to the introduction of the Offshore Development.

The baseline conditions are presented under the following headings:

- > Landscape character;
- > Coastal character;
- > Landscape designations and Wild land;
- > Views and visual receptors;
- > Cumulative developments; and
- > Predicted future baseline.

### 16.4.5 Landscape Character

Landscape character information, prepared by or on behalf of NatureScot, forms the basis of the characterisation of the SLVIA Study Area. NatureScot has recently reviewed and updated the 30 original Landscape Character Assessments (LCAs), produced to cover the whole of Scotland during the 1990s, by creating a single data set in a digital version. The Landscape Character Types (LCTs) presented in the updated dataset, and located across the 50 km SLVIA Study Area, are used as the basis of the assessment of effects and cumulative effects on landscape character. Where LCTs occur more than once in the SLVIA Study Area, these are described as Landscape Character Units (LCUs) and defined by a local name. These LCTs and LCUs are shown in Figure 16.2 and overlaid with the blade tip ZTV in Figure 16.9 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The ZTV shows that theoretical visibility of the Offshore Development will be concentrated along the northern coastline of Mainland Scotland and then become increasingly limited in extent with distance inland from the coast. In the hinterland, the potential for landscape character to be significantly affected rapidly reduces as the association with the Pentland Firth weakens, the association with the inland landscapes strengthens and the influence from the closer onshore wind farms moderates the influence from the more distant Offshore Development. The Offshore Development will only have indirect effects on the perception of landscape character owing to its separate location out at sea. For a significant effect to arise, the indirect visual influence from the Offshore Development will need to be strong enough for it to become the defining characteristic of the onshore LCTs. The potential for LCTs to be significantly affected by the Offshore Development will, therefore, be limited to the coastal LCTs extending inland to a radius of approximately 20 km. In respect of the LCTs, detailed assessments are presented in Sections 16.7 and 16.8, for all five of the LCTs that occur within a 20 km of the Offshore Development, and which have the potential to be significantly affected. Where LCTs occur more than once in the SLVIA Study Area, these are described as Landscape Character Units (LCUs) and defined by a local name, as:

- > Farmed Lowland Plain LCT;
- > Sandy Beaches and Dune LCT: Sandside Bay LCU / Melvich Bay LCU;
- > Cliffs and Sheltered Cliffs and Bay LCT: Melvich to Sandside LCU / Strathy Point to Melvich LCU;
- > Sweeping Moorland and Flows LCT; and
- > Coastal Crofts and Small Farms LCT: Strathy LCU / Melvich and Portskerra LCU.

### 16.4.6 Coastal Character

In addition to the assessment of effects on landscape character, this SLVIA also considers the effects on coastal character. In Scotland, it is the coastal areas that form the basis of NatureScot's coastal characterisation assessments and not the seascape, as presented in 'Guidance on Coastal Character Assessment' (SNH, 2017) and 'Coastal Character Assessment: Orkney and North Caithness' (SNH, 2016). The SLVIA, therefore, uses the coastal characterisations instead of seascape characterisations, as the basis of the assessment and despite SLVIA standing for Seascape, Landscape, and Visual Impact Assessment, reference in this methodology is made to coastal character instead of seascape character and it is the effects on coastal character and not seascape character that is assessed.

The basis of the majority of this assessment is SNH'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. The distribution of the RCCAs within the 50 km SLVIA Study Area is shown in Figure 16.3, and in conjunction with the ZTV in Figure 16.10. Where Local Coastal Character Areas (LCCAs) occur, these are shown within a 20 km radius plan and ZTV on Figures 16.3 and 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c). The RCCAs and LCCAs that show theoretical visibility, are used as the basis of the assessment of effects and cumulative effects on coastal character, presented in sections 16.7 and 16.8.

As the 'Coastal Character Assessment: Orkney and North Caithness' does not cover the Sutherland coastlines west of Portskerra and extending to Strathy Point and beyond, there has been no previous published

assessment carried out to define and describe the RCCAs or LCCAs along the westerly section of the coastline. In its consultation response NatureScot suggested that the Farr Point Remote High Cliffs should be included in the assessment of coastal character effects. This coincides with a section of the coast defined as Type 1: Remote High Cliffs National Coastal Character Type in NatureScot's Guidance Note Coastal Character Assessment (SNH, 2017). This is shown in Figures 16.3 and 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c). Since there are no published citations for RCCAs or LCCAs in Sutherland, the baseline descriptions have, therefore, been developed through a combination of site work and reference to NatureScot's landscape character assessments for these areas. The coastal character assessment accords with NatureScot's 'Guidance Note – Coastal Character Assessment' (SNH, 2018).

The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that theoretical visibility of the Offshore Development will be concentrated along the northern coastline of Mainland Scotland and the western coastline of the Island of Hoy. The potential for coastal character to be significantly affected rapidly reduces with distance from the Offshore Development, which will only have indirect effects on coastal character owing to its separate location out at sea. For a significant effect to arise, the indirect visual influence from the Offshore Development will need to be strong enough for it to become the defining characteristic of the RCCA or LCCA. The potential for RCCAs or LCCAs to be significantly affected by the Array Area will, therefore, be limited to a radius of approximately 20 km. In respect of the RCCAs, detailed assessments are presented in sections 16.7 and 16.8, for all five of the RCCAs that occur within a 20 km of the Offshore Development, and which have the potential to be significantly affected. The associated LCCAs are also considered in the assessment.

- > Portskerra RCCA 47;
- > Farr Point RCCA;
- > Scarfiskerry and Dunnet Head RCCA 44;
- > Thurso Bay and Dunnet Bay RCCA 45; and
- > Brims Ness RCCA 46.

#### 16.4.7 Landscape Designations

Whilst there are no landscape planning designations specifically to protect seascape areas, there are areas within the 50 km SLVIA Study Area that have been attributed a landscape planning designation, with some boundaries extending across inshore waters. Figure 16.4 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows the distribution and extent of landscape designations across the 50 km radius SLVIA Study Area. These include nationally important National Scenic Areas (NSAs) and Gardens and Designed Landscapes (GDLs). There are also regionally important Special Landscape Areas (SLAs) which have been designated through The Highland Council's 'Highland wide Local Development Plan' (The Highland Council, 2012).

Through the scoping process, the potential effects of the Offshore Development have been considered in respect of all landscape designations and their related settings. This considers the separation distance between the landscape designation and the Offshore Development, the extents and levels of visibility across the landscape designation, the association between the landscape designation and the location of the Offshore Development, and existing influences from other developments including onshore wind farms and Dounreay Nuclear Power Facility. In some situations, it is also relevant to consider how the Offshore Development effects views towards the designated area.

The findings of this preliminary appraisal undertaken through the scoping process were that two SLAs have the potential to be significantly affected by the Offshore Development and, therefore, require a detailed assessment. The closest SLAs to the PFOWF Array Area include Farr Bay, Strathy and Portskerra SLA at approximately 8 km to the south-west, and Dunnet Head at approximately 23 km to the east. These SLAs require a detailed assessment owing to their close association with the seascape context where the Array Area will be located. The likely effects of the Offshore Development on these SLAs are assessed in sections 16.7 and 16.8 and is based on the citations presented in THCs 'Assessment of Highland Special Landscape Areas'.

The NSAs, GDLs and other SLAs, were not considered to have the potential to be significantly affected owing mainly to the substantial separation distances between the designated landscapes and the Offshore Development, but also the limited extents of visibility, and limited association between the designated



landscapes and the location of the Offshore Development. Despite the findings of this preliminary appraisal, through the Scoping Opinion, NatureScot has taken a precautionary approach and requested that the Kyle of Tongue NSA and Hoy and West Mainland NSA be included in the detailed assessment of the SLVIA. Detailed assessments of these designated areas are presented in Appendix 16.2 and Appendix 16.3, respectively, in accordance with guidance set out in NatureScot's 'Guidance for Assessing the Effects on Special Landscape Qualities' (SNH, 2018).

#### 16.4.8 Wild Land

Wild Land is recognised in Scottish Planning Policy (SPP) and regional planning policy as a nationally important mapped interest, and not a designation. Whilst WLAs are afforded protection for their wildness qualities, they are not statutorily protected in the way that National Parks and NSAs are for their scenic qualities. Figure 16.4 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows the distribution and extent of WLAs across the 50 km SLVIA Study Area.

The assessment of effects on WLAs follows guidance set out in NatureScot's 'Assessing Impacts on Wild Land: Technical Guidance' (2020) ('the 2020 Guidance'). NatureScot, on its website, states that the 2020 Guidance is the appropriate guidance to be applied in the assessment of effects on WLAs in place of the previous 2017 Draft Guidance.

Whether a WLA assessment is required, is discussed in paragraph 5 of the 2020 Guidance, with the need considered to be highly likely where the development is located within a WLA, but less likely where the development is located outwith the WLA. The Wildness Qualities of the WLAs are described in terms of either physical attributes or perceptual responses. As the Offshore Development lies outwith the WLAs it will have no effect on the physical attributes of any of the WLAs in the 50 km SLVIA Study Area. Whilst the Offshore Development may have an effect on the perceptual responses of the WLAs, in respect of the fact that there are no WLAs within a 10 km radius of the Offshore Development, it is unlikely that the perceptual responses of any of the WLAs will be significantly affected. Furthermore, the presence of operational wind farms along the north coast of Scotland, as shown in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), illustrates the extent of existing human influences that form the baseline context to the WLAs.

Through the scoping process, the potential effects of the Offshore Development have been considered in respect of all WLAs. This considers the separation distance between the WLA and the Offshore Development, the extents and levels of visibility across the WLA, the association between the WLA and the location of the Offshore Development, and existing influences from other developments including onshore wind farms and Dounreay Nuclear Power Facility.

The findings of this preliminary appraisal undertaken through the scoping process were that the East Halladale Flows WLA has the potential to be significantly affected by the Offshore Development and, therefore, requires a detailed assessment. It also found that the other WLAs, do not have the potential to be significantly affected owing mainly to the substantial separation distances between the WLAs and the Offshore Development, but also the limited extents of visibility, and limited association between the WLAs and the location of the Offshore Development. Despite the findings of this preliminary appraisal, through the Scoping Opinion, NatureScot have requested that the Hoy WLA be included in the detailed assessment of the SLVIA. Detailed assessments of the East Halladale Flows WLA and the Hoy WLA are presented in Appendix 16.4 and Appendix 16.5, respectively and in accordance with NatureScot's 2020 Guidance.

#### 16.4.9 Views and Visual Receptors

The viewpoint list is presented in Table 16.4 SLVIA Representative viewpoints below. The locations of the viewpoints and likely concentrations of principal visual receptors are shown in Figures 16.5, 16.6a and 16.6b (Offshore EIAR [Volume 4]: Appendix 16.9c). The viewpoint list has been informed through site work carried out across the SLVIA Study Area and from working on a number of previous projects in this area, as well as from comments from NatureScot and THC made through the scoping process.

The viewpoints represent sensitive visual receptors across the SLVIA Study Area, which have potential to be significantly affected. The selection of the viewpoints also considers the representation of the coastal and landscape receptors within which they are located, and the representation of the surrounding cumulative context, with both these considerations helping to inform the wider assessment. Whilst it is important to achieve a distribution of viewpoints from different directions and distances across the SLVIA Study Area, the overall aim is to ensure that the closer range receptors with the greatest potential to be significantly affected are fully represented.

The key receptors considered in the SLVIA are the road-users on the nearby A836 (North Coast 500 / National Cycle Route 1), residents of the coastal settlements and walkers or visitors to features along the coast. Viewpoints have also been included to represent the views of walkers on the hills within the coastal hinterland and beyond, with these viewpoints also representing the associated landscape character types, landscape designations and wild land. Viewpoints are included on Hoy to represent the views of walkers and visitors on this more distant island, as well as on the ferry between the Mainland of Scotland and the Mainland of Orkney.

Table 16.4 SLVIA Representative viewpoints

Viewpoint	Grid reference	Distance / direction	Representation
1 Beinn Ratha	295429 E 961302 N	12.5 / S	Walkers
2 Strathy Point Car Park	282725 E 968597 N	9.2 / SW	Walkers / visitors to the point
3 Portskerra/Melvich	287762 E 964929 N	9.3 / SSW	Residents / road-users on the A836
4 Drum Holliston Car Park	293266 E 964533 N	9.3 / S	Road-users on the A836
5 Sandside Headland	295695 E 966278 N	7.5 / S	Walkers / visitors to the harbour
6 St Mary's Chapel, Forss	302497 E 970105 N	8.2 / SE	Walkers / visitors to the chapel
7 Dunnet Head	320532 E 976496 N	25.5 / E	Walkers / visitors to the point
8 Scrabster – Stromness Ferry	313206 E 984983 N	27.8 / NE	Ferry passengers
9 Old Man of Hoy	319147 E 998988 N	34.5 / NE	Walkers / visitors to the coast
10 A836 East of Forss	305643 E 969387 N	11.4 / SW	Residents / Road-users on the A836
11 Ben Griam Beg	283179 E 941175 N	33.4 / S	Walkers
12 Ben Loyal	257626 E 948257 N	41.5 / SW	Walkers
13 A' Mhoine	258247 E 965654 N	33.5 / WSW	Walkers
14 Ben Dorrery	306289 E 955062 N	21.8 / SSE	Walkers
15 Ward Hill, Hoy	322893 E 1002188 N	39.7 / NE	Walkers
16 Tor Ness, Hoy	325129 E 988574 N	33.4 / NE	Walkers

#### 16.4.10 Cumulative Developments

The operational and under construction developments are considered as part of the baseline and, therefore, included in the main assessment of effects, as well as the cumulative assessment of effects. The assessment of cumulative effects describes the effects arising from the addition of the Offshore Development to a cumulative baseline of operational, under construction, consented and application stage wind farms or other large-scale energy developments within the 50 km SLVIA Study Area.

This assessment includes supporting graphics, including a plan of cumulative developments in Figure 16.16, cumulative ZTVs in Figures 16.17 to 16.27 (Offshore EIAR [Volume 4]: Appendix 16.9c) and cumulative wirelines in Figures 16.31 to 16.62 (Offshore EIAR [Volume 4]: Appendix 16.9a and Offshore EIAR [Volume 4]: Appendix 16.9b).

There are no operational or proposed wind farms or other large-scale energy developments located within the first 7 km radius around the Offshore Development WTGs. There are, however, a number of other operational and proposed developments within the wider 50 km SLVIA Study Area which are listed in Table 16.16 in Section 16.8 and shown on the cumulative plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c).

#### 16.4.11 Predicted Future Baseline

In terms of climate change the future baseline of the Offshore Site is discussed in Chapter 20: Climate Change and Carbon within this EIAR.

In terms of human influences, the most notable changes in the SLVIA Study Area will relate to the decommissioning of the Dounreay Nuclear Power Facility as set out in THC's adopted 'Dounreay Planning Framework 2'. This is scheduled to be complete by 2030 and will involve a notable reduction in the extent of large-scale development along this coastal edge. In terms of existing settlements within the SLVIA Study Area, these are relatively small, and their growth has typically occurred incrementally. The majority of developments in the rural area comprise individual properties or small clusters of properties, which are unlikely to grow substantially.

The North Coast 500 has increased in popularity since its launch in 2014, attracting approximately 29,000 visitors in 2017. This has led to an increase in traffic on those roads that make up the North Coast 500, including the A836 which passes along the north coast of Caithness and pressure for accommodation and other visitor facilities along this route.

#### 16.4.12 Summary of Baseline Environment

An assessment of the baseline environment has assisted in identifying the key receptors that are sensitive to the potential impacts of the Offshore Development and which, therefore, form the focus of the impact assessment. With the Offshore Site set off the northern coastal edge, many of the landward receptors are influenced by both the open agricultural and moorland landscapes to the south and the open seascape to the north. There is also often a more immediate influence from the large-scale energy developments of the onshore wind farms and Dounreay Nuclear Power Facility. The scope of the SLVIA includes the following coastal, landscape and visual receptors which lie within the SLVIA Study Area, and which have the potential to be significantly affected.

- > Landscape Character Types: Farmed Lowland Plain LCT / Sandy Beaches and Dunes LCT / High Cliffs and Sheltered Bays LCT / Sweeping Moorland and Flows LCT / Coastal Crofts and Small Farms LCT;
- > Regional and Local Coastal Character Areas: Portskerra RCCA / Farr Point RCCA / Skarfskerry and Dunnet Head RCCA / Thurso Bay and Dunnet Bay RCCA / Brims Ness RCCA (and associated LCCAs);
- > East Halladale Flows WLA / Hoy WLA;
- > Viewpoints:
  - 1 Beinn Ratha
  - 2 Strathy Point Car Park
  - 3 Portskerra/Melvich
  - 4 Drum Holliston Car Park
  - 5 Sandside Headland
  - 6 St Mary's Chapel, Forss
  - 7 Dunnet Head

8 Scrabster – Stromness Ferry

9 Old Man of Hoy

10 A836 East of Forss

11 Ben Griam Beg

12 Ben Loyal

13 A' Mhoine

14 Ben Dorrery

15 Ward Hill, Hoy

16 Tor Ness, Hoy; and

- > Cumulative Assessment: all relevant operational, under construction, consented and application stage onshore and offshore wind farms over 50 m to blade tip and all other large-scale energy infrastructure.

Potential receptors and impacts scoped into the assessment and impacts scoped out are provided in Section 16.5 along with justification.

## 16.5 Impact Assessment Methodology

### 16.5.1 Potential Impacts

This assessment covers all impacts identified through the scoping process, as well as any further potential impacts that have been highlighted as the EIA has progressed. It should be noted that impacts are not necessarily relevant to all stages of the Offshore Development, with many of the more notable impacts only relevant to the operational phase.

Table 16.5 below indicates all of the indirect impacts assessed with regards to SLVIA and indicates the Offshore Development stages to which they relate. Cumulative impacts are discussed in Section 16.8.

Table 16.5 Impacts requiring assessment

Impact	Description
<b>Construction</b>	
The effect on seascape / landscape character and visual amenity owing to the presence and activity of the construction vessels.	In respect of the presence of construction vessels, the potential for a significant effect to arise would be limited by their location a minimum of 7.5 km offshore, although some might pass closer to shore, their use within a limited period over the spring/summer months of 2025 and 2026 such that the effects would be for a relatively short duration and also the baseline context in which large vessels periodically pass through this part of the North Atlantic.
The effect on seascape / landscape character and visual amenity owing to the installation of the offshore WTGs with their floating substructures.	The offshore WTGs and floating substructures will be towed into position in the PFOWF Array Area, such that there will be no construction of WTGs on site. This means that the effect of the offshore WTGs will be relatively instant and not attributable to the construction period on site.
The effect on visual amenity owing to the use of artificial lighting to enable construction works during the hours of darkness.	The potential effect of construction lighting would be limited by the scheduling of the construction works in the spring / summer of 2025 and spring / summer of 2026 which means that the works would be mostly carried out during the hours of daylight and lighting would either be required at the beginning and end of the shorter days or used during daytime when the effects would not be so noticeable. Furthermore, the lighting would be located a minimum distance of 7.5 km offshore which would reduce its potential effect.

Impact	Description
<b>Operation and maintenance</b>	
The effect on seascape / landscape character and visual amenity owing to the presence of the offshore WTGs and the movement of their blades and the presence of the floating substructures over a 30 year life-cycle.	The presence and movement of seven offshore WTGs up to 300 m to blade tip height and with floating substructures has the potential to significantly affect the coastal and landscape character of the north Caithness coast which faces out towards the part of the North Atlantic where the Offshore Development would be located, as well as the associated landscape designations and WLAs. There is also the potential for visual receptors, including residents, road-users and walkers, to be significantly affected by the introduction of these large and dynamic structures in this part of the seascape which is visible from many of the coastal settlements and roads, as well as coastal landscapes and the rural hinterland.
The effect on seascape / landscape character and visual amenity owing to use of aviation lighting on the offshore WTGs during the hours of darkness over a 30 year life-cycle.	There is the potential for significant night-time effects on visual receptors in respect of aviation lighting associated with the offshore WTGs. There is the potential that these lights could affect people's appreciation of the night skies by introducing lighting that would be visible in certain conditions off the north Caithness coast.
The effect on seascape / landscape character and visual amenity owing to use of helicopters and maintenance vessels to service the offshore infrastructure over a 30 year life-cycle.	The limited frequency of the use of helicopters would limit the potential for their presence to give rise to a significant effect. In respect of the presence of maintenance vessels, the potential for a significant effect to arise would also be limited by the limited frequency of their use but also by the baseline context in which large vessels periodically pass through this part of the North Atlantic.

In terms of construction sequencing, it is proposed that a single WTG and associated floating foundation is planned to be installed in 2025 ahead of the remaining WTGs which are proposed to be installed in 2026. Additionally, the Horizontal Directional Drilling (HDD) at landfall is likely to take place in 2024. The installation of all the offshore components are planned to be completed across two seven month, construction stages, commencing in spring 2025, pausing over winter and then continuing with a second construction stage planned in spring and summer 2026. In terms of the WTG construction, the construction of a single WTG in the first construction stage will be over an indicative 4 month period, construction of the remaining WTGs in the second construction stage will occur over an indicative six month period.

Construction impacts relating to the Offshore Development will be limited owing to the construction of the WTGs in the locality of the installation port. The location of the installation port is still to be determined but will not be within the 50 km SLVIA Study Area. The construction of the WTGs at the installation port will give rise to temporary effects, with a limitation to the magnitude of change, resulting from the association of the installation port with the construction of large-scale structures and the likely industrial setting of the port. There will also be temporary effects (limited to a period of 1 to 2 days) during the tow out of WTGs from the installation port to the PFOWF Array Area. Construction works will involve the installation of the WTGs to connect in position with the mooring lines. These activities will be relatively small in scale and short in duration.

The assessment of impacts on SLVIA, combined desk-based and on-site studies making use of visualisations including ZTVs, wirelines, photowirelines and photomontages.

### 16.5.2 Impacts Scoped Out of the Assessment

Whilst the installation phase of the Offshore Development within the PFOWF Array Area will include the presence and activity of vessels required to enable the installation process, as well as the use of construction lighting, their additional effect will be limited due to the minimum distance of 7.5 km from the closest shore, their comparatively small scale relative to the WTGs and the baseline influence of vessels in the North Atlantic, albeit less frequent. During both the construction and the operational phases, the effects will relate principally to the presence and influence of the seven WTGs. The effects of the Offshore Development during the construction phase will, therefore, be less than or similar to the effects of the Offshore Development during the

operational phase, save for the effect arising as a result of the construction vessels and construction lighting which may occur with or without the WTGs being present. Whilst these additional activities and the resultant impacts will be of a notably smaller scale than the impacts relating to the WTGs, they may at times add a degree of additional impact. They will, however, not increase the magnitude of change ratings assessed in respect of the operational phase.

The assessment of the construction phase, therefore, will effectively be less than or the same as the assessment of the operational phase and for that reason the detailed assessment of construction effects has been scoped out.

The construction, operational and maintenance impacts of the offshore cable route will be limited owing to its location under the sea, with sections running along or buried below the seabed. During the construction phase, residual landscape and visual effects will relate to the presence and activity of vessels associated with the offshore cable route construction. As the effects of these construction works will be small in scale and seen in the context of an open seascape where vessels of various sizes are a baseline feature, the assessment of these construction impacts has been scoped out of the assessment. As there will be no residual seascape, landscape or visual effects during the operational phase due to its sub-sea surface location, the offshore cable route has been scoped out of the assessment of this phase.

Decommissioning will involve the dismantling and removal of the seven WTGs and associated floating substructures, anchoring systems and the dynamic and static cables where possible (unless there is compelling evidence to leave the buried sections *in situ*). Scour protection may also be left *in situ* as it may not be practical to remove; anchor piles may also be cut to a depth of 1 m below the seabed and left *in situ*. Detail on the decommissioning methodology of the Offshore Development infrastructure is limited at this time as this will occur after the 30 year operational life of the Offshore Development. In relation to the Offshore Development, the programme for decommissioning is expected to be similar in duration to the construction phase. The detailed activities and methodology will be determined later within the Offshore Development life-cycle, but are expected to include:

- > Presence and activity of decommissioning vessels;
- > Removal from site of the offshore infrastructure including the offshore WTGs; and
- > Use of artificial lighting to enable decommissioning during the hours of darkness.

The worst case assumption for the decommissioning phase is the complete removal and reinstatement of the current (baseline) status at the Offshore Site. In this scenario it is anticipated that the impacts will be similar to or less than those assessed during construction.

A Decommissioning Programme will be developed pre-construction to address the principal decommissioning measures for the Offshore Development, this will be written in accordance with applicable guidance and detail the methodology, the environmental management and schedule for decommissioning. The Decommissioning Programme will be reviewed and updated throughout the life-cycle of the Offshore Development to account for changing best practice.

### 16.5.3 Assessment Methodology

Chapter 6: EIA Methodology describes the generic methodology used throughout the EIA. Whilst the SLVIA methodology broadly accords with this generic methodology, it has been specifically developed to reflect the particular requirements of assessing landscape and visual receptors and, therefore, presents a more specific methodology relevant to this topic. Appendix 16.1 sets out the full methodology for the SLVIA, whilst a summary of the key approach is presented below.

The SLVIA assesses the potential impacts of the Offshore Development on coastal, landscape and visual receptors within the SLVIA Study Area. This includes the likely impacts of the Offshore Development, comprising the offshore WTGs, and floating substructures. The assessment will be undertaken in accordance with GLVIA3 and other best practice guidance. An overview of the SLVIA process is provided here.



The SLVIA assesses the likely effects that the operation of the Offshore Development on coastal, landscape and visual receptors, encompassing effects on coastal character, landscape character, wild land, effects on views and visual receptors, and cumulative effects on all of the above.

#### 16.5.3.1 Categories of effects

The SLVIA has been carried out using a methodology specifically devised by OPEN for the assessment of energy developments. Whilst this generally accords with GLVIA 3 guidance, in the few areas where it diverges from specific aspects of this guidance, reasoned professional justification for this is presented in Appendix 16.1. This methodology has been applied on a number of consented large-scale offshore wind farms and accepted through the planning process of these projects, including East Anglia 3, Norfolk Boreas, Norfolk Vanguard and Thanet Extension.

The potential impacts of the Offshore Development on coastal character, landscape character and visual receptors are grouped into three categories: effects on coastal and landscape character, effects on views, and cumulative effects.

Effects on coastal and landscape character arise either through the introduction of new elements that physically alter the pattern of elements that makes up landscape character, or through visibility of the Offshore Development, which may alter the way in which the pattern of elements of that coast or landscape is perceived. The receptors in this case are coastal and landscape character receptors, which are Local Landscape Character Areas (LCCAs), landscape character types and designated landscapes.

The assessment of effects on views is an assessment of how the introduction of the Offshore Development will affect the views experienced by people throughout the SLVIA Study Area. The assessment of effects on views is carried out in two parts:

- > An assessment of the effects that the Offshore Development will have on a series of representative viewpoints that have been selected to represent the views experienced by people, for example, residents, walkers and road-users, across the SLVIA Study Area; and
- > An assessment of the effects that the Offshore Development will have on views from principal visual receptors, which are people within or using the notable settlements, routes, features and attractions found throughout the SLVIA Study Area.

Cumulative effects arise where the study areas for two or more developments overlap such that multiple developments are experienced at proximity where they may have an incremental effect, or where developments may combine to have a sequential effect, irrespective of any overlap in visibility. Cumulative assessments typically include existing developments that make up the baseline of the receiving environment, other developments that are under construction and consented, and those for which planning applications have been submitted.

In respect of sites that are at scoping stage, NatureScot advice (formerly Scottish Natural Heritage (SNH, 2012)) states *‘Occasionally it may be appropriate to include proposals which are in the early stages of development in an assessment, particularly where clusters of developments or ‘hotspots’ emerge.’*

#### 16.5.3.2 Assessment criteria

The objective of the SLVIA is to predict the likely significant effects on the landscape and visual resource. In line with the EIA Regulations, the SLVIA effects are assessed to be either significant or not significant. The significance of effects is assessed through a combination of two considerations: the sensitivity of the landscape or visual receptor and the magnitude of change that will result from the addition of the Offshore Development.

The geographic extent over which the landscape and visual effects will be experienced is also assessed, which is distinct from the size or scale of effect. This evaluation is not combined in the assessment of the level of magnitude but instead is used in determining the extent in which a particular magnitude of change is experienced and the extent of the significant and non-significant effects. The extent of the effects will vary depending on the specific nature of the Offshore Development and is principally assessed through analysis of the geographical extent of visibility of the Offshore Development across the landscape or principal visual receptor.

The duration and reversibility of effects on views are based on the period over which the Offshore Development is likely to exist, and the extent to which the Offshore Development will be removed, and its effects reversed at the end of that period. Duration and reversibility are not incorporated into the overall magnitude of change and may be stated separately in relation to the assessed effects.

The 'nature of effects' relates to whether the effects of the Offshore Development are adverse, neutral or beneficial. 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 effect is therefore one that requires interpretation and reasoned professional opinion. OPEN generally adopts a precautionary approach which assumes that significant landscape and visual effects will be weighed on the negative side of the planning balance, although positive or neutral effects may arise in certain situations.

### 16.5.3.3 Defining the significance of effect

The matrix presented in Table 16.6 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 coastal, 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.

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 16.6, should, therefore, be considered as a guide and any deviation from this guide will be clearly explained in the assessment.

Significant landscape and visual effects are highlighted in bold and shaded dark grey in Table 16.6. They relate to all those effects that result in a 'Significant' level of 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 16.6 indicate a not significant effect. Levels of effect are also defined in terms of major, major-moderate, moderate, moderate-minor and minor and are shown 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 16.6 Illustrative matrix of significant LVIA effects

>Magnitude of change Sensitivity	High	Medium-high	Medium	Medium-low	Low	Negligible
High	Significant (Major)	Significant (Major)	Significant (Major-moderate)	Significant or not significant (Moderate)	Not significant (Moderate-minor)	Not significant (Minor)
Medium-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-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)

#### 16.5.3.4 Significance and non-significance of landscape effects

A significant effect will occur where the combination of the sensitivity of the landscape receptor and the magnitude of change, results in the Offshore Development having a defining effect on the coastal or landscape receptor, or where changes of a lower magnitude affect a landscape receptor that is of particularly high sensitivity. A major loss or irreversible effect over an extensive area of coastal or landscape character, affecting landscape elements, characteristics and / or perceptual aspects that are key to a nationally valued landscape, are likely to be significant.

A not significant effect will occur where the effect of the Offshore Development is not defining, and the coastal or landscape character of the receptor continues to be characterised principally by its baseline characteristics. Equally a small-scale change experienced by a receptor of high sensitivity may not significantly affect the special landscape quality or integrity of a designation. Reversible effects, on elements, characteristics and character that are of small-scale or affecting lower value receptors are unlikely to be significant.

#### 16.5.3.5 Significance and non-significance of visual effects

The level of visual effect is evaluated through the combination of visual sensitivity and magnitude of change. Once the level of effect has been assessed, a judgement is then made as to whether the level of effect is 'significant' or 'not significant' as required by the relevant EIA Regulations. This process is assisted by the matrix in Table 16.5 which is used to guide the assessment.

A significant effect is more likely to occur where the combination of the sensitivity of the landscape receptor and the magnitude of change, results in the Offshore Development having a defining effect on the view or visual amenity, or where changes affect a visual receptor that is of high sensitivity.

A not significant effect is more likely to occur where a combination of the variables results in the Offshore Development having a non-defining effect on the view or visual amenity, or where changes affect a visual receptor that is of low sensitivity.

### 16.5.4 Design Envelope Parameters

As detailed in Chapter 5: Project Description, this assessment considers the Offshore Development parameters which are predicted to result in the greatest environmental impact, known as the 'realistic worst case scenario'. The realistic worst case scenario represents, for any given receptor and potential impact on that receptor, various options in the Design Envelope that would result in the greatest potential for change to the receptor in question.

Given that the realistic worst case scenario is based on the design option (or combination of options) that represents the greatest potential for change, confidence can be held that development of any alternative options within the design parameters will give rise to no effects greater or worse than those assessed in this impact assessment. Table 16.7 presents the realistic worst-case scenario for potential impacts on coastal, landscape and visual receptors during the construction, operational and maintenance, and decommissioning phases of the Offshore Development.

In respect of the offshore WTGs, the worst-case scenario has been taken as seven offshore WTGs each with a blade tip height of 300 m. Whilst in reality, the options would be either five offshore WTGs at 300 m or seven WTGs at 270 m, a precautionary approach has been taken for the purposes of the SLVIA which covers the worst case in respect of both the number and height of the offshore WTGs, so that regardless of the final WTGs selected, the assessment has identified all potential significant effects. The 30 m height difference between the 270 m and 300 m WTGs amounts to an additional ninth in height and this incremental difference means that these WTG options are broadly comparable, with the taller WTGs being considered in the assessment.

Table 16.7 Design parameters specific to SLVIA receptor impact assessment

Potential Impact	Design Envelope Scenario Assessed
<b>Operational Phase</b>	
Effect on landscape and coastal character receptors and visual receptors owing to the presence of the offshore WTGs and floating substructures.	<ul style="list-style-type: none"> <li>&gt; Seven offshore WTGs with maximum blade tip height of 300 m above HAT.</li> <li>&gt; Rotor Diameter up to 260 m.</li> <li>&gt; Hub height up to 170 m above HAT</li> </ul>
Effect on landscape and coastal character receptors and visual receptors owing to the presence of the floating substructures associated with the offshore WTGs.	<ul style="list-style-type: none"> <li>&gt; Seven floating substructures with length and breadth up to 125 m.</li> <li>&gt; Height up to 70 m.</li> <li>&gt; Proportion of height above sea surface up to 30 m.</li> </ul>
Night-time effect on visual receptors owing to presence of aviation and marine navigational lighting.	<p>Night-time aviation lighting fixed to hubs of all seven WTGs at height of up to 170m – 2,000 candela (cd) medium intensity steady red lights employing mitigation detection system which ensures intensity is reduced to 10% (200cd) during periods of good visibility during the hours of darkness i.e. over a 5 km range.</p> <p>Marine navigational lighting fixed to substructures of all seven WTGs at height of up to 30 m – 5 nautical mile (NM) range flashing yellow lights.</p>

In terms of considering the worst case scenario for the SLVIA, the 300 m WTGs with a 260 m rotor diameter has been selected as this is the largest possible rotor that could be used and will present a notably larger blade than the 220 m alternative. This means that the hub height used with the 260 m rotor diameter will be 170 m as opposed to the maximum proposed hub height of 190 m that would be used with the 220 m rotor diameter. Whilst this means that for the night-time assessment presented in Appendix 16.6, that the lights are being assessed at a hub height of 170 m compared to a potential maximum hub height of 190 m, this difference of 20 m will not affect the assessment for the following reasons.

Firstly, the closest receptors will be more than 7.5 km from the closest WTG and associated aviation light and the 20 m difference in the hub heights will not be apparent from these distances and especially not at night-time. Secondly, in terms of the extents to which hub lighting at 170 m will be visible compared to hub lighting at 190 m, these will be broadly similar with only very marginal increases in the potential extents. And thirdly, from the coastal parts where the effects are most likely to have a significant effect, typically the hubs of all seven WTGs would be readily visible regardless of whether the aviation lights are at 170 m or 190 m. The use of aviation lighting on 190 m high hubs would, therefore, not alter the assessment presented in this appendix of aviation lighting on 170 m hubs (Offshore EIAR [Volume 3]: Appendix 16.6: Night-time Visual Impact Assessment).

### 16.5.5 Embedded Mitigation and Management Plans

There is very limited opportunity to mitigate seascape, landscape and visual effects outwith standard mitigation measures undertaken in the iterative design process. The likely visual effects of different layout scenarios have been investigated in the absence of mitigation measures as part of the review of the worst case scenario layout for the Offshore Development. The iterative design process for the Offshore Development has led to the PFOWF Array Area being more than halved in size from 25 km<sup>2</sup> to 10 km<sup>2</sup> from the consented Dounreay Tri project. This reduction has had the effect of notably reducing the horizontal extent of the offshore WTGs with the layout being contained within a much more compact area. Whilst the minimum number of WTGs remains at five, the maximum number of WTGs has reduced from ten to seven. Furthermore, the location of the PFOWF Array Area has been set back further from shore at its closest point. It is now a minimum of 7.5 km from the north Caithness coast, whilst previously Dounreay Tri was consented at approximately 6 km from the coastline. In respect of some landscape and visual receptors, these changes will reduce to some extent the effects of the Offshore Development. The final design and layout will also be required to take into account other stakeholder requirements such as navigation, commercial fisheries and search and rescue (SAR); and other technical and environmental factors within the PFOWF Array Area.

Residual effects are those effects which remain after mitigation. The residual effects that the Offshore Development will have on coastal, landscape and visual receptors are assessed in Sections 16.7 and 16.8 presented below. These are categorised into effects on coastal, landscape and visual receptors, as well as cumulative effects, and are considered at the operational and maintenance phase, as well as during the installation of the WTGs and their final decommissioning.

### 16.5.6 Data Gaps and Uncertainties

#### 16.5.6.1 Zone of Theoretical Visibility

The ZTV has been generated using GIS software (ESRI ArcGIS Version 10.5) to demonstrate the extent to which the Offshore Development may theoretically be seen from any point across the SLVIA Study Area. These ZTVs are shown in Figures 16.5 to 16.13 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The zones of theoretical visibility are calculated based on the height of the landform relative to the height of the Offshore Development. The ZTVs do not take into account the screening effect of woodland cover, buildings or other local features. As a result, the ZTVs present a conservative worst case assumption in respect of theoretical visibility, and this is highlighted in the limitations set out below.

There are limitations in the production of ZTVs, and these should be considered in their interpretation and use:

- > The ZTV illustrates the 'bare ground' situation which does not take into account the screening effect of woodland cover, buildings, or other local features that may prevent or reduce visibility;
- > The ZTVs are based on theoretical visibility from 2 m above ground level; and
- > The ZTVs are based on 5 m data grid (OS Terrain 5).

These limitations mean that whilst the ZTV is a useful as a starting point in the assessment, by providing an indication of locations from where the Offshore Development will theoretically be visible, the information drawn from the ZTV is checked in the field, to ensure that the assessment conclusions represent the likely actual visibility of the Offshore Development.

### 16.5.6.2 Visualisations

The viewpoint assessment is illustrated by a range of visualisations, including photographs and photomontages, which accord with SNH's Visual Representation of Wind Farms Version 2.2 (SNH, 2017) and THC Visualisation Standards (THC, 2016). Visualisations of wind farms have a number of limitations when using them to form a judgement on a wind farm proposal. These include:

- > A visualisation can never show exactly what the wind farm will look like in reality due to factors such as: different lighting, weather and seasonal conditions, which vary through time and the resolution of the image;
- > The images provided give a reasonable impression of the scale of the WTGs and the distance to them, but can never be 100% accurate;
- > A static image cannot convey WTG movement, or lighting from the sun on the WTG blades as they move;
- > The viewpoints illustrated are representative of views in the area, but cannot represent visibility at all locations;
- > To form the best impression of the effects of the wind farm proposal these images are best viewed at the viewpoint location shown;
- > The visualisations must be printed at the right size to be viewed properly (A1 width or as otherwise specified) and viewed at a comfortable viewing distance; and
- > The photographs used to produce the photomontages have been taken using Canon EOS 5D and 6D Digital SLR cameras, with a fixed lens and a full-frame (35 mm negative size) sensor. The photographs are taken on a tripod with a pano-head at a height of approximately 1.5m above ground except where otherwise specified.

To create the baseline panorama, the frames are individually cylindrically projected and then digitally joined to create a fully cylindrically projected panorama using Adobe Photoshop or PTGui software. This process avoids the wide-angle effect that would result should these frames be arranged in a perspective projection, whereby the image is not faceted to allow for the cylindrical nature of the full 360-degree view but appears essentially as a flat plane.

Tonal alterations are made using Adobe software to create an even range of tones across the photographs once joined. The photographs are also joined to create planar projection panoramas using PTGui software. These are used in the creation of the 53.5-degree field of view photomontages.

Daytime visualisations and wirelines show a WTG model which represents the maximum development scenario of the Offshore Development in the PFOWF Array Area and allow the potential proportions of the WTGs to be appreciated from the visualisations.

Wireline representations that illustrate the Offshore Development and set within a computer-generated image of the landform are used in the assessment to predict theoretical appearance of the WTGs. These are produced with Resoft WindFarm software and are based on a terrain model with a 50 m data grid (OS Panorama) with a more detailed area of terrain modelling (OS terrain 5) used for the coastal parts of the SLVIA Study Area, which includes the majority of viewpoints used in the SLVIA. There are limitations in the accuracy of digital terrain model (DTM) data so that landform may not be picked up precisely and may result in wind WTGs being more or less visible than is shown, however, the use of OS Terrain 5 reduces these limitations. Where descriptions within the assessment identify the numbers of wind WTGs visible this refers to the illustrations generated and therefore the reality may differ to a degree from these impressions.

Fully rendered photomontages will be produced for the agreed viewpoints using Resoft WindFarm software, to provide a photorealistic image of the appearance of the Offshore Development. In the daytime photomontages modelled representations are combined with the baseline view photographs to create a photorealistic rendered photomontage image of the development.



The baseline photographs and cumulative wireline visualisations shown for each viewpoint cover a 90-degree field of view, or in some cases, up to 360-degree, which accords with NatureScot's guidance. These are cylindrically projected images and should be viewed flat at a comfortable arm's length.

The 53.5-degree field of view wirelines and photomontages are prepared using a planar projected image and should also be viewed flat at a comfortable arm's length. For field work review and assessment, the photomontages should, where possible, be printed and viewed at the correct size (260mm by 820mm). Images viewed on screen should be viewed with the image enlarged to the 260mm height by 'zooming' to 'actual size' to give a realistic impression when viewed at approximately arm's length. Images should be held flat at a comfortable arm's length. If viewing these images on a wall or board at an exhibition, viewers should stand at arm's length from the image presented to gain the best impression.

In the wirelines, the WTGs are shown with the central WTGs facing the viewer directly, with the full rotor diameter visible at its tallest extent. In the photomontages, the WTG rotors are shown with a random appearance with the central WTGs facing the viewer directly.

Rendering of the WTGs in the photomontages is as photorealistic as possible to the conditions shown in each viewpoint photograph. There is some variation in the appearance and visibility of the WTGs between the viewpoints, as they are rendered to suit the conditions shown in each of the different viewpoint photographs, which have some unavoidable degree of variation in terms of lighting and weather conditions. The key requirement is that the WTGs will be rendered with sufficient contrast against the skyline backdrop to illustrate their maximum visibility scenario in each image. Photomontages will be prepared to depict how the Offshore Development would appear in excellent visibility conditions to illustrate the worst case. The full suite of viewpoint photomontages should be viewed to gain an impression of the likely visual effects of the Offshore Development.

Where THC requests planar panoramas for use in its single frame panoramic viewer, these have a vertical field of view of a focal length of 75 mm (18 degrees field of view), based on a recalibration of the 50mm single frame.

The photographs and other graphic material such as wirelines and photomontages used in this 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 assessments are carried out from observations in the field and, therefore, may include elements that are not visible in the photographs.

#### **16.5.6.3 Public access**

The assessment has been carried out from publicly accessible areas. In instances where parts of these areas have been inaccessible, other sources of information have been used and professional judgement has been applied in the interpretation of these sources.

## **16.6 Assessment of Potential Effects During Construction and Decommissioning**

As described in Section 16.5.2, effects on landscape character and visual amenity will occur as a result of the construction activities, including laying new offshore export cables to shore and the installation of WTGs; using wind farm service vessels. Temporary effects may also arise as a result of the WTG fabrication in the locality of the installation port (to be determined) and temporarily during the tow out from the port facility. Temporary effects resulting from WTG fabrication will be associated with port operations in a location which is likely to have a baseline industrial character, and these effects are not expected to be significant.

The residual effects arising as a result of the construction and decommissioning of the Offshore Development are assessed as being of the same magnitude and significance on all coastal, landscape and visual receptors as those arising due to their operation and maintenance, as assessed in Section 16.7, with the residual effects being short-term and temporary, occurring for the duration of the construction and decommissioning phases and differing in nature from the operational effects, mainly due the influence of the various construction vessels in the seascape, including cable laying vessels closer to shore within the Offshore Export Cable Corridor, during the construction and decommissioning phase that will not be present or result in effects during the operational phase.

The effects during the construction and decommissioning phase are, therefore, not assessed in detail and for effects on all coastal, landscape and visual receptors during the construction and decommissioning phases, reference should be made to the detailed assessment during the operational and maintenance phase for the assessment of significance in Section 16.7.

## 16.7 Assessment of Potential Effects During Operation and Maintenance

### 16.7.1 Effects on Landscape Character Types

#### 16.7.1.1 *Farmed Lowland Plain LCT 143*

##### 16.7.1.1.1 Baseline

This is an extensive LCT, covering much of the north-eastern part of Caithness. The Offshore Development will be situated to the north-west of this LCT, set 7 to 8 km from the northern coastline between Sandside Bay and Brims Ness. The landscape transitions into the Sweeping Moorland LCT to the west and south. There is a small area of the Sandy Beaches and Dunes LCT covering Sandside Bay, whilst between Brims Ness and Holborn Head there is a narrow band of the High Cliffs and Sheltered Bays LCT. The effects of the Offshore Development on Coastal Character are assessed in Section 16.7.2.

The Farmed Lowland Plain LCT is characterised by the cultivation of the land, the development of small settlements and farmsteads, and a road network of main and minor roads. The landform is gently sloping with low rounded hills separated by broad, shallow valleys. There is a strong horizontal emphasis and a sense of openness, which accentuates the influence of the sky in the overall character of the landscape. The simplicity of the underlying landform is overlain by human interventions including field patterns, medium and small settlements, roads and railways, as well as localised energy developments and infrastructure. The most notable developments include the Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Substation and associated electricity transmission lines which occupy the western part of the coastal strip between Reay and Forss, as well as Baillie Hill and Forss wind farms. These developments are located in this LCT and establish large-scale energy developments as a baseline feature of the LCT.

There is a lack of enclosure in this LCT. Whilst small hills such as Baillie Hill and Lieurary Hill form local landform features, there are no big hills which would otherwise act to define and enclose the low-lying coastal edge. There is also very little enclosure from tree cover, with much of the landscape comprising open farmland and small blocks of trees only occurring in localised areas, such as around Sandside House. This means that the defining character of this landscape is one of openness with a strong association with the sweeping moorlands in the west of the LCT and with the Atlantic Ocean in the north of the LCT.

##### 16.7.1.1.2 Sensitivity

The value of this LCT is medium. There are no national or regional landscape designations covering this LCT, which would otherwise denote a particular recognised landscape value.

The susceptibility of this LCT to the effects of the Offshore Development is medium-low. The broad scale and open character of this LCT adds to its susceptibility to influences from the wider context, although it is only along the coastal edge that the adjacent seascape, where the Offshore Development will be located, has a notable influence. Across the LCT, the landscape has been modified through the cultivation of the landscape and the development of small settlements and a road network. The landscape is managed through farming practices and so, although well-tended, has few natural areas. Settlement is relatively sparse and well dispersed and appears as an integral part of the rural landscape. Larger scale development occurs in the form of Baillie Hill Wind Farm in the north-west of the LCT and Forss Wind Farm on the coast. Also, in the north-west of this LCT is the Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Substation and associated electricity transmission lines, which present a close-range influence from large-scale energy developments, and establish an industrial character to this part of the LCT.

The combination of the medium value of this LCT and its medium-low susceptibility to the Offshore Development gives rise to an overall **medium** sensitivity.

#### 16.7.1.1.3 Magnitude of change

There will be no change to the pattern or elements that primarily define this LCT due to the location of the Offshore Development at some distance from its boundary. Any changes in the perception of the LCT's character will only occur as a result of visibility of the Offshore Development as part of the wider context, which contains many different features. Viewpoints 6, 10 and 18 are located within this LCT. The ZTV in Figure 16.9 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that visibility of the Offshore Development will be almost continuous along the northern coast between Sandside Head in the west and Spear Head in the east. This visibility will extend inland to cover a coastal strip a minimum distance of 7 to 13 km from the Offshore Development and with all seven WTGs visible. Visibility around and to the south of Baillie Hill will become patchy, and whilst visibility will be almost continuous across the north-west facing slopes of the low hills to the west of Thurso and Halkirk, to the east visibility is notably reduced, with patches only arising to the east and south of these settlements at distances beyond 20 km.

The magnitude of change arising on the Farmed Lowland Plain LCT as a result of the Offshore Development will be **medium-low** across the north-western part of the LCT and either **low** or **no change** across the remaining parts. The medium part of the rating relates to the relative proximity of the north-western part of this LCT to the Offshore Development, its orientation north-west to where the Offshore Development will be located, and the undeveloped and simple backdrop that the seascape presents in contrast to the developed coastal edge. The low part of the rating will relate to the existing large scale energy developments in this LCT, which present direct and much closer range indirect, perceptual influences on this LCT. Whilst the Offshore Development will add seven large-scale WTGs into the Atlantic Ocean, with an indirect influence on the character of this coastline, they will not appear as a new or unfamiliar feature and will be associated with the Atlantic Ocean rather than the immediate landscape.

#### 16.7.1.1.4 Significance of effect

The effect of the Offshore Development on the Farmed Lowland Plain LCT will be **not significant** at a **moderate /minor** level across the north-western part of the LCT and a **minor** level across the remaining parts from which it is visible. The Offshore Development will not redefine the character of this LCT through the perception of the Offshore Development as part of its context. This is largely owing to the strong baseline influence which occurs as a result of the existing Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Substation, Forss Wind Farm and Baillie Hill Wind Farm, all of which occur in this LCT. There will be **no effect** in those parts of the LCT where visibility will not occur.

### 16.7.1.2 Sandy Beaches and Dunes LCT 140

#### 16.7.1.2.1 Baseline

Whilst more extensive beaches and dunes occur on the eastern coast of Caithness, on the northern coast they are typically small in extent and contained by rocky headlands. The ZTV in Figure 16.9 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that there are two LCUs of the Sandy Beaches and Dunes LCT, within a 20 km radius of the Offshore Development, where theoretical visibility will occur; namely Sandside Bay LCU and Melvich Bay LCU.

The Sandside Bay LCU comprises a small beach set to the south of the bay and enclosed by the rocky headlands of Sandside Head to the west and White Geos to the east, with the light sands contrasting with the dark rocks. A small band of dunes contain the southern side of the beach, these characterised by the slightly raised mounds they form and the long grasses which cover them. Whilst farmland encroaches up to the coastal edge on the western and eastern sides, to the south, Reay Golf Course preserves some features of this links landscape.

This LCU is small and low-lying and although the surrounding landform does not rise notably, it is enough to provide some degree of containment to the bay and, to some extent, the views. Whilst the natural features of the beach, bay and dunes define this LCU, there are also human influences with the road, car park and harbour set on the western side of the bay and Dounreay Nuclear Power Facility and Vulcan NRTE to the east, albeit offset approximately 800 m from the coastal edge. The screening effect of the intervening landform of the White Geos does, however, limit the influence of these large-scale energy developments on the character of this LCU.

The Melvich Bay LCU covers a similarly small extent as the Sandside Bay LCU and is more tightly enclosed by the surrounding landform. The coastal hill of Rubha and Tuir (96 m AOD) rises steeply to enclose the eastern side of the bay and contain views to the east and north-east, whilst the more rounded landform on the western and southern sides, enclose the bay in these directions. This leaves the northern aspect as the most open aspect with views channelled out across the North Atlantic. Whilst there is no large-scale development visible from Melvich Bay other than the tall mast on Cnoc a Choire Bhig (132 m AOD) to the south-west, there is small scale development in the form of the A836 and settlement of Melvich, which wrap around the southern side of the bay, and the settlement of Portskerra, which sits on the headland that extends out to the north on the western side of the bay.

#### 16.7.1.2.2 Sensitivity

The value of the Sandside Bay LCU is medium and the value of the Melvich Bay LCU is medium-high. Whilst there are no national or regional landscape designations covering the Sandside Bay unit, the Farr Bay, Strathy and Portskerra SLA covers the Melvich Bay unit, and this denotes a particular recognised landscape value.

The susceptibility of the Sandside Bay LCU to the effects of the Offshore Development is medium. There is a close association between the bays and the North Atlantic, and the lack of development and the scale of the open seascape presents a contrast with the coastal landscape that adds to the susceptibility of the LCUs. Whilst the bay and enclosing headlands are largely natural, the surrounding landscape has been modified through the cultivation of farmland, and development of settlement, the Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Substation and associated electricity transmission lines.

The susceptibility of the Melvich Bay LCU to the effects of the Offshore Development is medium-high. Whilst there is also settlement around the bay and a mast to the south-west, these human influences are not as large in scale or industrial in character as those that act on the Sandside Bay LCU and the influence of the surrounding hills reinforces the greater strength of the landscape character.

The combination of the medium value of the Sandside Bay LCU and its medium susceptibility to the Offshore Development gives rise to an overall **medium** sensitivity, whilst the combination of the medium-high value of the Melvich Bay LCU and its medium-high susceptibility to the Offshore Development gives rise to an overall **medium-high** sensitivity.

#### 16.7.1.2.3 Magnitude of change

There will be no change to the pattern or elements that primarily define these LCUs due to the location of the Offshore Development at some distance from its boundary. Any changes in the perception of the LCUs' characters will only occur as a result of visibility of the Offshore Development as part of the wider context, which contains many different features. Viewpoint 3 is located in the Melvich Bay LCU, whilst Viewpoint 5 is located in the Sandside Bay LCU. The ZTV in Figure 16.9 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows almost continuous visibility of all seven WTGs across the small Sandside Bay LCU of this LCT, although wirelines from this LCT show that there will be screening of the WTGs on the western side of the PFOWF Array Area, such that not all WTGs will be seen to their full extent. Visibility will occur from a minimum distance of approximately 8 km and the WTGs will be seen set in the seascape to the north, albeit with some screening from Sandside Head on the western side. The ZTV shows that visibility across the small Melvich Bay LCU will range from seven WTGs visible on the western side to one WTG visible on the eastern side. This variation reflects the screening effect of the coastal hill on the eastern side of the bay which will screen the WTGs set to the north-east. Visibility will occur from a minimum distance of approximately 8 km and will be seen on the eastern side of the channelled opening to the North Atlantic.

The magnitude of change will be **medium** for both the Sandside Bay and Melvich Bay LCUs of the Sandy Beaches and Dunes LCT. In respect of both the Sandside Bay LCU and the Melvich Bay LCU, the Offshore Development will have a notable influence owing to its location in the open seascape onto which both bays face, albeit with the Offshore Development set at a minimum of approximately 8 km from the Sandside Bay LCU and offset to the north-north-west, and at a minimum of approximately 8.5 km from the Melvich Bay LCU and offset to the north-north-east. Owing to the screening effect of the headlands around the bay, not all the WTGs will be fully visible from all parts of each LCU. The WTGs will appear as large-scale structures set in the open seascape. They will create a notable influence on the Sandside Bay LCU even considering the baseline influence from the adjacent Dounreay Nuclear Power Facility, Vulcan NRTE and SSE Dounreay

Substation. In respect of the Melvich Bay unit, the channelling effect of the enclosing headlands will emphasise the influence of the Offshore Development, despite not all the WTGs being visible or fully visible from the lower lying eastern parts of the bay.

#### 16.7.1.2.4 Significance of effect

The effect of the Offshore Development on the Sandside Bay and Melvich Bay LCUs of the Sandy Beaches and Dunes LCT will be **significant** at a **moderate** level. This assessment relates principally to the fact that both bays are orientated north and the large-scale WTGs will form a defining influence on the perceived character of these small enclosed bays, despite the separation distance and the other closer range influence onshore.

### 16.7.1.3 High Cliffs and Sheltered Bays LCT 141

#### 16.7.1.3.1 Baseline

The High Cliffs and Sheltered Bays LCT occurs along much of the Caithness and Sutherland coastlines. The ZTV in Figure 16.9 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that there are four LCUs of the High Cliffs and Sheltered Bays LCT, within a 20 km radius of the Offshore Development, where theoretical visibility will occur; namely Brims Ness to Holborn Head LCU, Melvich to Sandside LCU, Strathy Point to Melvich LCU and Torrisdale Bay to Strathy Point LCU. Out of these four LCUs, the two with potential to undergo significant effects include the Melvich to Sandside LCU and Strathy Point to Melvich LCU. The Brims Ness to Holborn Head LCU is orientated north whilst the Offshore Development is located to the north-west. This reduces the association between this section of coast and the Offshore Development as it will occur at an oblique angle and be partially screened by the intervening Brims Ness. The ZTV in Figure 16.9 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that visibility along the Torrisdale Bay to Strathy Point LCU will be very patchy in extent and the orientation of much of this coastline to the west or north-west will reduce the association with the area of seascape to the north-east where the Offshore Development will be located.

This LCT is characterised by high and dramatic cliffs often edged by low rocky reefs. The cliffs follow the indented coastline with intermittent bays and geos forming recessed sections where rivers meet the coastline and rocky headlands protrude out towards the sea. By the very nature of the high cliffs landscape, this LCT forms a narrow band along the coastal edge. Farmland or moorland extends right up to the cliff tops and the sea extends up to the cliff bases, albeit with the LCT broadening where rocky reefs occur.

In the context of the wider low-lying and gently undulating landscape, this LCT forms one of the area's more dramatic landscapes. The cliff tops are exposed to the wider influence of the hinterland which steps up from the farmed coastal edge to the more remote sweeping moorland. In contrast the cliff bases are screened from much of the hinterland such that their influence comes from the closer extent of the surrounding coastline and the wider extent of the adjacent seascape. Built development is sparse in this LCT, other than occasional harbours set within more sheltered coves and bays. Built development does, however, have some influence, with Dounreay Nuclear Power Facility, Forss Wind Farm and Baillie Hill Wind Farm, visible to the west of Sandside Bay.

#### 16.7.1.3.2 Sensitivity

The value of the Melvich to Sandside LCU is medium and the value of the Strathy Point to Melvich LCU is medium-high. Whilst there are no national or regional landscape designations covering the Melvich to Sandside unit, the Farr Bay, Strathy and Portserra SLA covers the Strathy to Melvich unit, and this denotes a particular recognised landscape value.

The susceptibility of these LCUs of the High Cliffs and Sheltered Bays LCT to the effects of the Offshore Development is medium. The cliff tops are especially susceptible to development in the North Atlantic owing to their elevated nature and the openness of the seascape. Whilst the cliff bases are more contained by skerries and indentations there are sections which are also exposed to the wider coastal landscape. Whilst the susceptibility of this LCT is moderated by the existing influence from the Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Substation, Forss Wind Farm and Baillie Hill Wind Farm on the adjacent coastline, the separation distance tempers these influences especially from the more distant Strathy to Melvich unit.



The combination of the medium and medium-high value of these LCUs and their medium-high susceptibility to the Offshore Development gives rise to an overall **medium-high** sensitivity.

#### 16.7.1.3.3 Magnitude of change

There will be no change to the pattern or elements that primarily define these LCUs, due to the location of the Offshore Development at some distance from its boundary. Any changes in the perception of the LCUs' characters will only occur as a result of visibility of the Offshore Development as part of the wider context, which contains many different features. Viewpoint 2 is located in the Strathy Point to Melvich LCU. The ZTV in Figure 16.9 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows continuous visibility along the Melvich to Sandside LCU of the High Cliffs and Sheltered Bays LCT and almost continuous visibility along the Strathy Point to Melvich LCU, with the exception of where indentations in the coastline occur. The WTGs will be located a minimum of approximately 8 km from the Melvich to Sandside LCU and a minimum of approximately 8.5 to 11 km from the Strathy Point to Melvich LCU. All seven WTGs will be seen set in the North Atlantic from most sections of these coastal cliffs.

The magnitude of change will be **medium-high** on both the Melvich to Sandside LCU and Strathy Point to Melvich LCU of the High Cliffs and Sheltered Bays LCT. The Melvich to Sandside LCU occurs to the south of the Offshore Development and is orientated north, directly towards it. Whilst Strathy Point is orientated eastwards and the coastline between Strathy Bay and Melvich Bay is orientated northwards, the Offshore Development will form a notable feature within the setting of both coastlines. These close associations will increase the influence of the Offshore Development on the perceived character of these LCUs. The seven WTGs will be seen as large-scale structures, set in an open and previously undeveloped seascape. Whilst other large scale energy developments are visible in the wider landscape, their moderating influencing is reduced by their separation from these LCUs and their comparatively smaller scale.

The magnitude of change is prevented from being rated high because the effects will be indirect, the WTGs will be located a minimum of 8 km from these coastlines and there is an existing influence from other large-scale energy developments within the wider landscape which will ensure that the WTGs do not appear as new or unfamiliar features

#### 16.7.1.3.4 Significance of effect

The effect of the Offshore Development on the Melvich to Sandside LCU and Strathy Point to Melvich LCU of the High Cliffs and Sheltered Bays LCT will be **significant** at a **major / moderate level**. The Offshore Development will present a defining feature in respect of the character of these coastal cliffs.

### 16.7.1.4 *Sweeping Moorland and Flows LCT 134*

#### 16.7.1.4.1 Baseline

The Sweeping Moorland and Flows LCT occurs extensively across much of Caithness and Sutherland and in respect of the SLVIA Study Area, covers the southern parts, extending up close to the coastal edge between Strathy Point and Sandside Head. The Sweeping Moorland and Flows LCT is characterised by broad expanses of relatively low-lying and gently undulating open moorland. The landform is typically below 150 m with the high points formed by occasional, small, isolated hills, such as Beinn Ratha (242 m AOD). The water-logged peaty soils give rise to landcover comprising mosses and wetland grasses, although some improved grazing occurs around the more settled margins. There is very little settlement in this LCT and at the core there is a sense of remoteness, albeit often with some distant influence from wind farm development, electricity transmission lines or coniferous woodland.

The East Halladale Flows are covered by the SLVIA Study Area. Whilst these parts present the key characteristics of this type, insofar as the landform is broad and gently undulating, the fact that they form the northern-most extent of this LCT and occur adjacent to the more settled and cultivated coastal landscapes, means that they do not share the sense of remoteness which occurs at the core of the LCT. Furthermore, Limekiln Coniferous Woodland and Strathy Forest occur in this LCT, such that these large sections contrast with the characteristic open moorland evident across the wider area, and which extends as far north as the High Cliffs and Sheltered Bays LCT on the northern coastline.



Operational Strathy North Wind Farm is located in the western part of this LCT, which borders with the Rocky Hills and Moorland LCT to the west. Whilst there is very little settlement in this LCT, the A836 does pass east-west through the northern part close to the coast. There is also an influence from the developments and land-uses to the north of this LCT, with Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Substation and Forss Business and Technology Park having a notable influence, along with rural settlement and roads, and the wider modification of the landscape for agricultural practices. Baillie Hill and Forss Wind Farms occur in this Farmed Lowland Plain LCT, whilst Limekiln Wind Farm is consented in the coniferous woodland of the Sweeping Moorland and Flows LCT, with a further extension and S36C Variation proposed.

#### 16.7.1.4.2 Sensitivity

The value of this LCT is medium and medium-high. There are no national or regional landscape designations covering this LCT which would otherwise denote a particular recognised landscape value. The south-eastern part of the LCT is covered by the East Halladale Flows WLA. This is a Mapped Interest relating to wildness qualities and this raises the value of this part of the LCT to medium-high.

The susceptibility of this LCT to the effects of the Offshore Development is medium-high, medium and low. The medium-high susceptibility relates to those parts of the LCT that occur on the northern coast, to the north of the A836. This coastal strip of the Sweeping Moorlands LCT is closely associated with the north coast and the North Atlantic which lies beyond, largely owing to its orientation in this direction and relative proximity to the Offshore Development. The susceptibility of the Sweeping Moorlands LCT to the south of the A836 is medium owing to the reduced association with the seascape and wider association with the surrounding moorland area. Within this wider landscape there are also influences from operational wind farms and the energy developments at Dounreay Nuclear Power Facility and Vulcan NRTE, which reduce the susceptibility of this part of the LCT to the potential effects of the Offshore Development. Further south, the susceptibility drops away to low as visibility of the Atlantic Ocean is notably reduced and the stronger association comes from the vast expanse of the open moorland landscape.

In the northern parts of the LCT the medium value combined with the medium-high susceptibility gives rise to an overall **medium-high** sensitivity. In the eastern parts of the LCT, covered by the East Halladale Flows WLA, the medium-high value combined with the medium or low susceptibility gives rise to an overall **medium** sensitivity. In the western parts of the LCT the medium value combined with the medium or low susceptibility gives rise to an overall **medium** or **medium-low** sensitivity.

#### 16.7.1.4.3 Magnitude of change

There will be no change to the pattern or elements that primarily define this LCT due to the location of the Offshore Development at some distance from its boundary. Any changes in the perception of the LCT's character will only occur as a result of visibility of the Offshore Development as part of the wider context, which contains many different features. Viewpoints 1 and 4 are located within this LCT. The ZTV in Figure 16.9 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that visibility will be almost continuous in the northern part of the Sweeping Moorland LCT to the north of the A836, and then occur in large patches across the central parts and in small patches across the southern parts. In the northern part of the LCT, typically all seven WTGs will have an influence from a minimum distance of approximately 8 to 10 km. Here the magnitude of change will be **medium-high** owing to the orientation of much of this moorland area north towards the North Atlantic where the Offshore Development will be located, as well as the fact that there are few large-scale operational developments with a strong influence on this coastal strip, other than the operational developments to the east of Sandside Bay.

In the central part of this LCT, to the south of the A836 and between a minimum distance of approximately 9 and 20 km, the magnitude of change on the perceived character of the LCT will range from **medium** through **low** to **no change**, depending on the number and extent of WTGs visible. Whilst the seven WTGs will have a notable influence on the character of parts of the Sweeping Moorland, it will not be definitive owing to the strong inherent character and vast scale of the LCT itself. Furthermore, there is an existing and closer range influence from large scale onshore energy developments including Strathy North and Baillie Hill Wind Farms, and Dounreay Nuclear Power Facility and Vulcan NRTE.

These developments will moderate the effects of the Offshore Development by presenting a context in which similar large-scale developments are already an established part of the wider baseline landscape. Further south, the magnitude of change will be low where visibility occurs in smaller patches and comprises smaller numbers of partially concealed WTGs, or no change where there are larger patches of no visibility.

#### 16.7.1.4.4 Significance of effect

The effect of the Offshore Development on the Sweeping Moorland and Flows LCT will be **significant** at a **major / moderate** and **moderate** level across the northern parts of this LCT where there is a close association with the North Atlantic, where the Offshore Development will be located. This significant effect will occur over a range of approximately 8 to 13 km from the Offshore Development. Beyond this range the association with the North Atlantic weakens and influences on landscape character come from the wider Sweeping Moorland LCT and other large-scale energy developments. In the central and southern parts of the LCT, the effect will be **not significant** at a **minor** level. In those areas where there is no change there will be **no effect**.

#### 16.7.1.5 Coastal Crofts and Small Farms LCT 144

##### 16.7.1.5.1 Baseline

Coastal Crofts and Small Farms LCT occurs almost continuously along the eastern coast of Caithness and then intermittently along the northern coast of Caithness and Sutherland. On the north coast, the LCUs of this type coincide with small pockets of fertile land occurring at the mouths of rivers connecting into the Atlantic Oceans or around the shorelines of the kyles and sea lochs. These are characterised by small groups of croft houses and associated outbuildings, arranged either in clusters or in linear patterns, along with small fields of pasture enclosed either by low stone walls or post and wire fencing. There is typically little tree cover and despite the houses being nestled into the landform, these areas are often exposed to the coast.

Those LCUs of the Coastal Crofts and Small Farms LCT that are relevant to this assessment occur in the section of coastline east of Strathy Point. These include the Melvich and Portskerra LCU, and the Strathy LCU. Although three other LCUs lie to the west of Strathy Point, these will not be significantly affected owing to no visibility occurring in the Kirtomy and Bettyhill LCUs, and limited visibility occurring in the Armadale LCU, owing to the screening effect of the intervening Strathy Point, as shown in the ZTV in Figure 16.9 (Offshore EIAR [Volume 4]: Appendix 16.9c).

##### 16.7.1.5.2 Sensitivity

The value of the Melvich and Portskerra LCU, and the Strathy LCU of this LCT is medium-high. The regional landscape designation of the Farr Bay, Strathy and Portskerra SLA covers both these units, and this denotes a particular recognised landscape value.

The susceptibility of these LCUs to the effects of the Offshore Development is medium-high. These small areas of crofting have a close association with the neighbouring seascape. This makes them more susceptible to the effects of the Offshore Development which will be located in the North Atlantic, especially as there is little existing large-scale development visible from most of these areas. These LCUs of the Coastal Crofts and Small Farms LCT are, however, influenced by the small scale and rural development they contain as well as the modified nature of their cultivated land. External influences include the A836 which connects most of these small settlements whilst from some elevated parts there is some visibility of more distant wind farms in the wider landscape.

The combination of the medium-high value of these LCUs and their medium-high susceptibility to the Offshore Development gives rise to an overall **medium-high** sensitivity.

##### 16.7.1.5.3 Magnitude of change

There will be no change to the pattern or elements that primarily define these LCUs, due to the location of the Offshore Development at some distance from its boundary. Any changes in the perception of the LCUs' character will only occur as a result of visibility of the Offshore Development as part of the wider context, which contains many different features. Viewpoint 2 is located in the Strathy LCU and Viewpoint 3 is located in the Melvich and Portskerra LCU.

The ZTV in Figure 16.9 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that visibility of the seven WTGs will be almost continuous across the northern and central parts of both LCUs but much more limited across the southern parts. In respect of the Strathy LCU, the ZTV shows visibility occurring along the eastern coastal edge where the dispersed linear settlement extends out to Strathy Point, but no visibility in the southern part where the nucleated part of the settlement occurs. In respect of the Melvich and Portskerra LCU, the ZTV shows visibility extending over Portskerra in the north and the elevated part of Melvich in the centre but with low level or no visibility in the southern part. The closest WTG of the Offshore Development will be located between approximately 8.5 and 11.5 km from both these LCUS and the WTGs will form a notable influence on the perceived character of these small areas owing to their large-scale, their location in the open seascape with which these LCUs have a close association, and the limited influence from other large-scale energy developments, although they do occur in the wider landscape and although small scale development in the form of settlements and roads do also occur in these LCUs. The magnitude of change in both LCUs will be **medium-high**.

#### 16.7.1.5.4 Significance of effect

The effect of the Offshore Development on the Melvich and Portskerra LCU, and the Strathy LCU of the Coastal Crofts and Small Farms LCT will be **significant** at a **major / moderate** level. This assessment relates to the close association that these small LCUs have with the adjacent North Atlantic where the Offshore Development will be located and the notable influence that these large scale and dynamic structures will have on these small-scale landscapes.

#### 16.7.1.6 Summary of effects on Landscape Character Types

The assessment of effects of the Offshore Development on the LCTs highlights the concentration of effects along the coastal edge between Strathy Point in the west and Brims Ness in the east. This section of the northern Caithness coastline is broadly orientated towards the Offshore Development. The significant effects will be concentrated in the coastal LCTs of the Sandy Beaches and Dunes LCT, High Cliffs and Sheltered Bays LCT and Coastal Crofts and Small Farms LCT, all within a range of 8 to 10 km from the closest WTG. These are all especially small LCTs covering limited extents along the coastline. The significant effects will also extend inland from the coast to a range of approximately 13 km over the Sweeping Moorland and Flows LCT to the south. This makes the extent of significant effects relatively contained along the coast and into the immediate hinterland with the majority of the much wider Sweeping Moorland and Flows either not significantly affected or not affected. The effect on all other LCTs and parts of LCTs in the 20 km radius, including the Farmed Lowland Plain LCT will be not significant. These effects are summarised in Table 16.8 below.

Whilst significant effects have been identified, these will be relatively localised within the SLVIA Study Area, largely affecting a small section of the coast and hinterland that currently have some development characteristics in the form of onshore wind farms and large-scale energy development. The localised nature of these effects means that the majority of the landscape receptors across the wider SLVIA Study Area will either undergo not significant effects or will not be affected.

Table 16.8 Summary of significance of effects on Landscape Character Types

LCT	Sensitivity	Magnitude of Change	Significance of Effect	Rationale
Farmed Lowland Plain LCT 143	Medium	Medium-low / Low / No change	Not significant (moderate / minor) No effect	This LCU is modified by agricultural land uses and with close range influences from Baillie Hill and Forss Wind Farms, Dounreay Nuclear Power Facility and SSE Dounreay Substation.
Sandy Beaches and Dunes LCT 140	Medium-high / Medium	Medium	Significant (moderate)	These LCUs have a close association with the North Atlantic where the Offshore Development will be located, albeit with some baseline influences from developments on the coast. The WTGs will form a notable influence on the character of these LCUs.

LCT	Sensitivity	Magnitude of Change	Significance of Effect	Rationale
High Cliffs and Sheltered Bays LCT 141	Medium-high	Medium-high	Significant (major/moderate)	These LCUs have a close association with the North Atlantic where the Offshore Development will be located. The WTGs will form a notable influence on the character of these LCUs.
Sweeping Moorlands and Flows LCT 134	Medium-high / Medium / Medium-low	Medium-high / Medium Low	Significant (major/moderate and moderate) – out to approximately 13 km  Not significant (minor) – all remaining parts	The northern part of this LCU has a close association with the North Atlantic where the Offshore Development will be located. The WTGs will form a notable influence on the character of this LCU inland to 13 km beyond which the closer-range moorland landscape will prevail as the defining influence.
Coastal Crofts and Small Farm LCT 144	Medium-high	Medium-high	Significant (major/moderate)	These LCUs have a close association with the North Atlantic where the Offshore Development will be located. The WTGs will form a notable influence on the character of these LCUs.

## 16.7.2 Effects on Regional and Local Coastal Character Areas

### 16.7.2.1 Portskerra RCCA 47

#### 16.7.2.1.1 Baseline

The Portskerra RCCA is located on the north Caithness coast. It extends from Portskerra in the west to Crosskirk Bay in the east and includes Melvich Bay and Sandside Bay with a close-range influence from Dounreay Nuclear Power Facility on the eastern side of the RCCA. The Orkney and North Caithness Coastal Character Assessment SNH, (2016) defines this RCCA using the following 'Key Characteristics'.

- > *'North to north-west facing Caithness coast, fronting onto the open Atlantic Ocean.*
- > *Varied rugged coast comprising developed low-lying coastal edge in the east and two concave bays divided by medium to high cliffs in the west.*
- > *Eastern coast is almost straight but indented consisting of a rocky foreshore backed by low cliffs and dunes.*
- > *Two sandy beaches are separated to the west by the elevated wild, open and exposed cliffs of the Red Point Coast (a habitat for nesting birds).*
- > *Hinterland comprises agricultural land at lower elevation and open exposed moorland on higher ground.*
- > *Significant industrial scale energy developments at Dounreay nuclear facility, Baillie Wind Farm further inland and the smaller scale Forss Business and Energy Park on the coastal edge.*
- > *Views vary from open vistas at elevated locations to framed views within sheltered bays.*
- > *Industrial scale energy developments often dominate views.'*

The Portskerra RCCA 47 is made up of four LCCAs, namely; 47a Crosskirk Bay to White Geos; 47b White Geos to Sandside Head; 47c Sandside Head to Leac Chailein; and 47d Leac Chailein to Rubha Bhra. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that all four of these LCCAs have the potential to be affected by the Offshore Development and detailed assessments of all four are presented below.

### 16.7.2.2 LCCA 47a Crosskirk Bay to White Geos

#### 16.7.2.2.1 Baseline

The Orkney and North Caithness Coastal Character Assessment (SNH, 2016) defines this LCCA using the following 'Key Characteristics'.

- > *'North to north-west facing Caithness coast, orientation onto the Atlantic.'*
- > *Outwith Crosskirk Bay the coast is characterised by a relatively straight coastal edge, with wide rocky foreshore and occasional sandy bays backed by dunes and low cliffs.*
- > *Well-ordered low-lying agricultural hinterland.*
- > *Large scale industrial Dounreay nuclear facility and associated infrastructure as well as wind turbines at Forss Business and Technology Park and Ballie Wind Farm are focal points in views along the coast.*
- > *Overlooked by settlement and the A836 road.*
- > *Consistent backdrop of large-scale Atlantic Ocean.'*

This LCCA is characterised by a relatively straight and low-lying coast with a wide rocky tidal foreshore and occasional small sandy or pebble bays, backed by dunes and very low sloping cliffs. The orientation of this coast is north-west onto the Atlantic Ocean, where the open seascape is generally featureless other than the occasional passing of large commercial vessels and smaller fishing boats. This LCCA is heavily influenced by the presence of Dounreay Nuclear Power Facility, Vulcan NRTE, Forss Wind Farm and Technology and Business Park, which form the focus in views from this area, along with nearby Baillie Hill Wind Farm. Large commercial vessels and small fishing boats are periodically visible out in the North Atlantic.

#### 16.7.2.2.2 Sensitivity

The value of LCCA 47a Crosskirk Bay to White Geos is medium. It is not covered by any national or regional level designations which would otherwise denote a special scenic landscape value.

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 towards the Atlantic Ocean and this will increase the susceptibility as it is in this direction that the Offshore Development will be located, albeit at a minimum of approximately 7 km from the closest section of coast. The susceptibility is, however, prevented from being rated high owing to the baseline influence from large scale developments along this coastline, including Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Dounreay Substation and Forss Wind Farm, as well as close range Baillie Hill Wind Farm set inland to the south.

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

#### 16.7.2.2.3 Magnitude of change

The magnitude of change on Crosskirk Bay to White Geos LCCA will be **medium-low**. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that visibility will be continuous along the coast, with all seven WTGs occurring in the open seascape to the north-west. At a minimum distance of approximately 8 km, the offshore WTGs will be readily visible and appear as large-scale structures with moving blades.

The influence of the Offshore Development will, however, be moderated by the extent of large-scale energy infrastructure within the close-range of this LCCA. Dounreay Nuclear Power Facility and Vulcan NRTE comprises a complex of large-scale, industrial buildings, located at the western end of this coastline, whilst Forss Wind Farm and Technology and Business Park are located at the eastern end. These developments form the defining features of this coastline, and it is in respect of this context that the introduction of the Offshore Development will not appear as a new or unfamiliar feature, and its perceived scale and influence will be moderated by these closer range developments.



#### 16.7.2.2.4 Significance of effect

The effect of the Offshore Development on Crosskirk Bay to White Geos LCCA will be **not significant** at a **moderate / minor** level. The close-range influence from Dounreay Nuclear Power Facility, Vulcan NRTE and Forss Wind Farm and Technology and Business Park, located along this section of coastline will ensure that the Offshore Development will not redefine the character of this LCCA, as it is already strongly defined by large-scale energy developments.

#### 16.7.2.3 LCCA 47b White Geos to Sandside Head

##### 16.7.2.3.1 Baseline

The Orkney and North Caithness Coastal Character Assessment (SNH, 2016) defines the White Geos to Sandside Head LCCA using the following 'Key Characteristics'.

- > *'North to north-west orientated Sandside Bay on the north Caithness coast, facing the open Atlantic.*
- > *Sandside Harbour found to the west of the bay provides anchorage for a range of vessels.*
- > *Rounded sandy beach, contained by Flagstone headlands and backed by high marram covered dunes.*
- > *Agricultural hinterland in the east, with open exposed moorland at higher elevation at Sandside Head in the west.*
- > *Settled farmed bay overlooked by settlement and the A836 road.*
- > *Dounreay nuclear facility dominates views to the east often in conjunction with large scale and smaller scale wind farms.*
- > *From higher elevations there are open and uninterrupted views east to the Orkney Islands and west to Strathly Point.'*

This LCCA is characterised by the narrow and rounded Sandside Bay which faces north out to the Atlantic Ocean, and which is framed by flagstone headlands to the west and east. The bay comprises a curved beach, backed by high sand dunes, whilst the headlands comprise a rocky foreshore of platforms backed by steep vertical cliffs. Views from Sandside Head on the western side are drawn out to the Atlantic Ocean, whilst views from the harbour and bay are more channelled north to the open seascape or east to Dounreay Nuclear Power Facility and Vulcan NRTE, with associated power lines and Forss and Baillie Hill wind farms visible also in this direction. Large commercial vessels and small fishing boats are periodically visible out in the North Atlantic.

##### 16.7.2.3.2 Sensitivity

The value of the White Geos to Sandside Head LCCA is medium. It is not covered by any national or regional level designations which would otherwise denote a special scenic value.

The susceptibility of this LCCA to the effects of the Offshore Development will be medium. The orientation of much of this coastline is north towards the Atlantic Ocean and this will increase the susceptibility as it is in this direction that the Offshore Development will be located, albeit at a minimum distance of approximately 8 km from the closest section of coast. The susceptibility is, however, prevented from being rated high owing to the baseline influence from large scale developments including Dounreay Nuclear Power Facility and Forss Wind Farm, as well as close range Baillie Hill Wind Farm set inland to the south-east.

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

##### 16.7.2.3.3 Magnitude of change

The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows almost continuous visibility of all seven WTGs across the small LCCA that covers Sandside Bay. Wirelines from this LCCA show that whilst all seven WTGs will be visible from the eastern side around White Geos, there will be screening of the WTGs from the bay and parts of the western side by Sandside Head, such that not all the WTGs will be seen to their full extents. Visibility will occur from a minimum distance of approximately 8 km and the WTGs will be seen set in the seascape to the north, albeit with some screening from Sandside Head on the western side.



The magnitude of change will be **medium** as the Offshore Development will have a notable influence set to the north-west and seen behind the enclosing landform to the bay, albeit with the WTGs partially screened and set at a minimum of approximately 8.5 km. The WTGs will appear as large-scale and dynamic structures set behind the enclosing landform of Sandside headland. They will create a notable influence on this LCCA even considering the baseline influence from the adjacent Dounreay Nuclear Power Facility and Vulcan NRTE.

#### 16.7.2.3.4 Significance of effect

The effect of the Offshore Development on the White Geos to Sandside LCCA will be **significant** at a **moderate** level. This assessment relates principally to the fact that this bay is orientated north and although the Offshore Development will be offset from the direct orientation from parts of the bay, the WTGs will still form a defining influence on the character of this coastline owing to the contrast that their large-scale and modern appearance will make in comparison to the small-scale and largely undeveloped character of the bay.

#### 16.7.2.4 LCCA 47c Sandside Head to Leac Chailein

##### 16.7.2.4.1 Baseline

The Orkney and North Caithness Coastal Character Assessment (SNH, 2016) defines the Sandside Head to Leac Chailein LCCA using the following 'Key Characteristics'.

- > *'North facing Caithness coast, fronting onto the Atlantic Ocean.*
- > *Elevated and exposed coast of medium to high cliffs, an important habitat for nesting birds.*
- > *Gently curving but deeply indented with a number of minor headlands, frequent geos, caves and rock stacks.*
- > *Coastal hinterland comprises elevated open and exposed moorland.*
- > *Rugged, wild and open coastal edge with minimal human influence.*
- > *A386 runs adjacent but is well set back from the coast.*
- > *Immediate dramatic views of cliffs and extensive panoramic views across the Atlantic to the Orkney Islands in the north-east and Strathy point in the west.*
- > *Dounreay nuclear facility and Baillie Wind Farm are a focal point in views to the east.'*

This LCCA is characterised by high and dramatic cliffs often edged by low rocky reefs. The cliffs follow the indented coastline with intermittent bays and geos forming recessed sections where rivers meet the coastline and rocky headlands protruding out towards the sea. The cliff tops are exposed to the wider influence of the hinterland which steps up from the farmed coastal edge to the more remote sweeping moorland. In contrast the cliff bases are screened from much of the hinterland such that their influence comes from the closer extent of the surrounding coastline and the wider extent of the adjacent seascape. Built development is sparse along this coastline, other than occasional harbours set within more sheltered coves and bays. Built development does, however, have some influence, with Dounreay Nuclear Power Facility, Vulcan NRTE, Forss Wind Farm and Baillie Hill Wind Farm, visible to the east of Sandside Bay. Large commercial vessels and small fishing boats are periodically visible out in the North Atlantic.

##### 16.7.2.4.2 Sensitivity

The value of the Sandside Head to Leac Chailein LCCA is medium. It is not covered by any national or regional level designations which would otherwise denote a special scenic value.

The susceptibility of the Sandside Head to Leac Chailein LCCA to the effects of the Offshore Development will be medium-high. The orientation of much of this coastline is north towards the Atlantic Ocean and this will increase the susceptibility as it is in this direction that the Offshore Development will be located, albeit at a minimum distance of 8 km from the closest WTG. The susceptibility is, however, prevented from being rated high owing to the baseline influence from large scale developments set along the coastline to the east of this LCCA, including Dounreay Nuclear Power Facility, Vulcan NRTE, Forss Wind Farm, and Baillie Hill Wind Farm.

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

#### 16.7.2.4.3 Magnitude of change

The magnitude of change on Sandside Head to Leac Chailein LCCA will be **medium-high**. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows theoretical visibility will be practically continuous along the coast, apart from where very small patches of lower or no visibility coincide with tightly enclosed geos. All seven proposed WTGs will be seen set in the open North Atlantic, such that they will be visible to their full extents. At a minimum distance of approximately 8 km, the WTGs will appear as large-scale structures with moving blades.

The medium-high magnitude of change reflects the notable influence that the Offshore Development will have on the character of this LCCA. The location of the Offshore Development a minimum of approximately 8 km to the north and the small number of WTGs it comprises means that it will occupy only 30 to 40 degrees of the wider 360-degree context around this LCCA, as shown in the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c). The proposed WTGs will, none-the-less have a strong influence on the character of this coastline owing to the size of the WTGs and their substructures. Whilst there is an existing influence from other large-scale development further along the coast to the east, the Offshore Development will be located in this northerly seascape with which the LCCA has a strong association. It will also appear at variance with the largely remote and natural character of the coast and be seen to increase the spread of large-scale development into this previously undeveloped seascape.

#### 16.7.2.4.4 Significance of effect

The effect of the Offshore Development on Sandside Head to Leac Chailein LCCA will be **significant** at a **major / moderate** level. Despite the relatively contained extent of the Offshore Development and the influence from other large-scale developments along the coast to the east, the Offshore Development will present a new large-scale feature out in the open seascape that will redefine the character of this coastline.

#### 16.7.2.5 LCCA 47d Leac Chailein to Rubha Bhra

##### 16.7.2.5.1 Baseline

The Orkney and North Caithness Coastal Character Assessment (SNH, 2016) defines the Leac Chailein to Rubha Bhra LCCA using the following 'Key Characteristics'.

- > *'North facing Caithness coast, fronting onto the Atlantic Ocean.'*
- > *Curving coastal edge of rounded deeply indented headlands and sheltered bays.*
- > *Coastal edge comprises of a wide sandy beach between elevated headlands of exposed grass covered cliffs.*
- > *Agricultural hinterland of well-ordered farmland to rough grazing with fringes of maritime grass and heath.*
- > *Overlooked by settlement, the A836 and other minor roads.*
- > *Small pier at Melvich Bay backed by Portskerra Drowning Memorial.*
- > *Contrasting views from contained bay at lower elevation out to the Atlantic to elevated views on headland out to Strathy point in the west and back to Dounreay in the east.'*

This LCCA covers a short section of coast comprising Melvich Bay and the western and eastern headlands which enclose it. Melvich Bay is a small curved sandy bay with a northerly outlook towards the Atlantic Ocean. The eastern headland is formed by the small hill of Rubha an Tuir (96 m AOD) with rocky cliffs and shoreline wrapping around its base, whilst the western headland is formed by the low cliffs and rocky shoreline of Portskerra, which stretches further north into the Atlantic than Leac Chalein. The indentation of the bay means that there is a strong influence from the immediate coastal edge, but also with the North Atlantic forming an

important part of the wider context. Large commercial vessels and small fishing boats are periodically visible out in the North Atlantic.

#### 16.7.2.5.2 Sensitivity

The value of the Leac Chailein to Rubha Bhra LCCA is medium. It is not covered by any national or regional level designations which would otherwise denote a special scenic value.

The susceptibility of the Leac Chailein to Rubha Bhra LCCA to the effects of the Offshore Development will be medium-high. The orientation of much of this coastline is north towards the Atlantic Ocean and this will increase the susceptibility as it is in this direction that the Offshore Development will be located, albeit at a minimum distance of approximately 8 km from the closest section of coast. The susceptibility is, however, prevented from being rated high owing to the baseline influence from large scale developments along this coastline, including Dounreay Nuclear Power Facility and Forss Wind Farm, as well as close range Baillie Hill Wind Farm set inland to the south.

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

#### 16.7.2.5.3 Magnitude of change

The magnitude of change on Leac Chailein to Rubha Bhra LCCA will be **medium-high**. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows theoretical visibility will be practically continuous along the coast of the western headland and into the bay, but that there will be low levels or no visibility from the coast of the eastern headland owing to the screening effect of Rubha an Tuir (96 m AOD) and the close-range cliffs. Visibility will resume around the north-facing part of the eastern headland, extending to Leac Chailein. Where visibility occurs, seven proposed WTGs will be seen set in the open Atlantic Ocean, such that they will be visible to their full extents. At a minimum distance of approximately 8 km, the WTGs will appear as large-scale structures with moving blades.

From the more northerly parts of the western and eastern headlands, where there is a stronger association with the Atlantic Ocean, the Offshore Development will form a notable influence owing to the height of the WTGs and substructures. These large-scale structures will present a stark contrast relative to the small-scale structures along this coastline and they will be seen to spread the influence of this large-scale development into a previously undeveloped seascape. Whilst the levels and extent of visibility will be less from within the bay, the framing of the WTGs between the headlands will accentuate their prominence and lead to a similarly strong influence.

The magnitude of change is prevented from being rated higher than medium-high owing to the location of the Offshore Development in the open seascape at a minimum of approximately 8 km which will ensure that the WTGs will appear distinctly separate and occupy only 30 to 40 degrees of the full 360-degree context. Whilst other large-scale developments are not readily visible from parts of this LCCA, the small-scale developments of Melvich and Portskerra are a feature of this LCCA and present a baseline human influence that moderates the influence of the Offshore Development.

#### 16.7.2.5.4 Significance of effect

The effect of the Offshore Development on Leac Chailein to Rubha Bhra LCCA will be **significant** at a **major / moderate** level. Despite the variable levels and extent of visibility, the Offshore Development will form a new defining feature that will have a notable influence on the character of this coastline.

#### 16.7.2.6 Brims Ness RCCA 46

##### 16.7.2.6.1 Baseline

The Brims Ness RCCA is located on the north Caithness coast. It extends from Crosskirk Bay in the west to Holborn Head in the east and includes the headland at Brims Ness. The Orkney and North Caithness Coastal Character Assessment (2016) defines this area using the following 'Key Characteristics'.

- > *'North-facing Caithness coast, fronting onto the open Atlantic Ocean.'*
- > *Relatively straight but regularly indented coast with headland curving outward in the west.*
- > *Medium height cliffs in the east lower to an intertidal, angular rocky foreshore in the west.*
- > *Hinterland of open exposed moorland with notable heath species at Ushat Head.*
- > *Occasional historic fortification and other remnants.*
- > *Settlement mostly stepped well back from the coastal edge.*
- > *Open uninterrupted views from elevated positions across the Atlantic Ocean. Views from Cross Kirk Bay are heavily influenced by Forss Business and Technology Park.'*

The Brims Ness RCCA 46 is made up of two LCCAs, namely; 46a Holborn Head to Long Rock; and 46b Long Rock to Crosskirk Bay. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that both of these LCCAs have the potential to be affected by the Offshore Development. A detailed assessment of the effects of the Offshore Development on 46a Holborn Head to Long Rock and 46b Long Rock to Crosskirk Bay is presented below.

#### 16.7.2.7 LCCA 46a Holborn Head to Long Rock

##### 16.7.2.7.1 Baseline

The Orkney and North Caithness Coastal Character Assessment (2016) defines the Holborn Head to Long Rock LCCA using the following 'Key Characteristics'.

- > *'Generally north facing Caithness coast, fronting onto the open Atlantic.'*
- > *Exposed coast, with rolling waves crashing against vertical cliffs.*
- > *Relatively straight but indented coastal edge of high cliffs (an important habitat for nesting birds), geos, stacks and small headlands, with a limited rocky foreshore.*
- > *Hinterland of exposed open maritime heath and grassland.*
- > *Rugged dramatic coastal edge, wild and remote.*
- > *Elevated open panoramic views across the Atlantic Ocean and Pentland Firth to the Orkney Islands. Dunnet Head is a focal point in views east.'*

This LCCA covers the eastern part of the coast between Holborn Head in the east and Brim's Head in the west. It is more rugged with high vertical cliffs and indentations formed by intermittent geos, and with a hinterland of open moorland hills. The orientation of this coast is predominantly north, whilst the Offshore Development will be located to the north-west. Close to middle-range views extend along the coast between the headlands and the geos, the most notable being east to Dunnet Head, whilst middle to long-range views extend over the Atlantic and Pentland Firth to the Orkney Islands. Large commercial vessels and small fishing boats are periodically visible out in the North Atlantic.

##### 16.7.2.7.2 Sensitivity

The value of the Holborn Head to Long Rock LCCA is medium. It is not covered by any national or regional level designations which would otherwise denote a special scenic value.

The susceptibility of the Holborn Head to Long Rock LCCA to the effects of the Offshore Development will be medium. The orientation of much of this coastline is north towards the Atlantic Ocean and this will increase the susceptibility as it is in this direction that the Offshore Development will be located, albeit at a minimum distance of approximately 15 km from the closest section of coast. The susceptibility is, however, prevented from being rated medium-high owing to the baseline influence from the nearby settlement of Thurso and ferry port of Scrabster, as well as Forss Wind Farm along the coast to the west and Baillie Hill Wind Farm set inland to the south-west.

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

#### 16.7.2.7.3 Magnitude of change

The magnitude of change on Holborn Head to Long Rock LCCA will be **medium**. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows theoretical visibility will be largely continuous along the coast, and there will be low levels or no visibility in very small patches screened by Ness of Litter and Spear Head. Where visibility occurs, seven proposed WTGs will be seen in the North Atlantic, set beyond Brim's Ness to the north-west of this LCCA. At a minimum distance of approximately 15 km, the WTGs will appear as medium to large-scale structures with moving blades.

The Offshore Development will be seen to spread the influence of wind farm development into the seascape and will be seen as seven tall WTGs with substructures. The effect will however be moderated by the following factors. Firstly, the extent of the seascape visible from this LCCA is expansive and the Offshore Development would be located behind Brims Ness to the north-west, keeping it contained in respect of the wider seascape and well separated from the views to Orkney. Secondly, the minimum of approximately 12 km means that the relative scale of the Offshore Development will be moderated, and the small number of WTGs means that they will occupy only 1 to 10 degrees of the wider 360-degree context. Thirdly, there are baseline human influences already acting on this coast with the Scrabster to Stromness ferries passing close to Holborn Head and the wind farms at Baillie Hill and Forss visible from parts of the LCCA.

#### 16.7.2.7.4 Significance of effect

The effect of the Offshore Development on Holborn Head to Long Rock LCCA will be **not significant** at a **moderate** level. Whilst the Offshore Development will have an influence on the character of this coastal area, the effect will be moderated by a combination of the separation distance, the limited effect on the wider seascape and views to Orkney owing to its location to the north-west, the contained horizontal extent of the Offshore Development and the existing human influences in the hinterland to this coast.

### 16.7.2.8 LCCA 46b Long Rock to Crosskirk Bay

#### 16.7.2.8.1 Baseline

The Orkney and North Caithness Coastal Character Assessment (SNH, 2016) defines the Long Rock to Crosskirk Bay LCCA using the following 'Key Characteristics'.

- > *'North to north-west facing Caithness coast, fronting onto the Atlantic Ocean.'*
- > *'Gently curving yet indented coast with an exposed headland at Brims Ness and more sheltered bay at Crosskirk.'*
- > *'Low to medium scale cliffs, slumping dunes and rocky foreshore, widest at Brims Ness.'*
- > *'Primarily low-lying exposed agricultural hinterland with maritime heath and grassland at Ushat Head.'*
- > *'Number of historical remnants including St Mary's Chapel.'*
- > *'Limited visibility of the coastal edge but the immense scale of Atlantic is a constant feature in views.'*
- > *'Coastal views to the west regularly contain wind turbines at Forss Business Park and Baillie Wind Farm.'*



This LCCA covers the western part of the coast between Holborn Head in the east and Brim's Head in the west, including the coast that extends around Ushat Head to Crosskirk Bay. This coast is less rugged than the section to the east, with lower cliffs and a lower-lying hinterland of farmland. The coast between Long Rock and Brims Ness is gently concave with a north-easterly and northerly orientation. Between Brims Ness and Crosskirk Bay, the coast is convex with low to medium cliffs and rocky foreshore forming a well-defined coastal edge. Whilst there is some degree of enclosure in Crosskirk Bay, most of this coast is exposed to the maritime influence of the North Atlantic to the north-west. Large commercial vessels and small fishing boats are periodically visible out in the North Atlantic.

#### 16.7.2.8.2 Sensitivity

The value of the Long Rock to Crosskirk Bay LCCA is medium. It is not covered by any national or regional level designations which would otherwise denote a special scenic value.

The susceptibility of the Long Rock to Crosskirk Bay LCCA to the effects of the Offshore Development will be medium. Whilst the section of coast from Brims Ness round to Crosskirk Bay is more exposed to the north-west, where the Offshore Development will be located, it is also more readily influenced by close-range Forss Wind Farm to the west, and middle-range Baillie Hill Wind Farm to the south-west. Conversely, the section of coast between Brims Ness and Long Rock is less exposed to the north-west but is also less influenced by the onshore wind farms owing to the full or partial screening provided by Brims Ness.

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

#### 16.7.2.8.3 Magnitude of change

The magnitude of change on the Long Rock to Crosskirk Bay LCCA will be **medium**. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows theoretical visibility will be largely continuous along the coast between Brims Ness and Crosskirk Bay but then patchy in levels and extent within Crosskirk Bay and along the coast to the east of Brims Ness. Where visibility occurs, seven proposed WTGs will be seen in the North Atlantic, visible to their full extents from Brims Ness and to variable extents to the east and from Crosskirk Bay. At a minimum distance of approximately 10.5 km, the WTGs will appear as large-scale structures with moving blades.

The Offshore Development will be seen to spread the influence of wind farm development into the seascape and will be seen as seven large WTGs with substructures. The orientation of the Brims Ness coast north-west towards the Offshore Development will increase this influence owing to the direct alignment. The effect will, however, be moderated most notably by the close-range influence of Forss Wind Farm, which is located to the immediate south-west of Crosskirk Bay, as owing to its closer range it will form a scale comparison that will reduce the perceived scale of the more distant offshore WTGs. At a minimum of approximately 10.5 km, the offshore WTGs will still appear large in scale, although owing to their small number will occupy only 5 to 10 degrees of the wider 360-degree context.

#### 16.7.2.8.4 Significance of effect

The effect of the Offshore Development on Long Rock to Crosskirk Bay LCCA will be **not significant** at a **moderate** level. Despite the orientation of Brims Ness towards the Offshore Development, the closer-range influence from Forss Wind Farm will ensure that the proposed WTGs do not become the defining influence on the character of this LCCA.

### 16.7.2.9 Dunnet Bay and Thurso Bay RCCA 45

#### 16.7.2.9.1 Baseline

The Dunnet Bay and Thurso RCCA is located on the north Caithness coast. It extends from Holborn Head in the west to Donald Gear's Geo on the Dunnet Head peninsula to the east and includes the broad, convex Thurso Bay and Dunnet Bay and the smaller Murkle Bay. The Orkney and North Caithness Coastal Character Assessment (SNH, 2016) defines this area using the following 'Key Characteristics'.



- > *'North-facing Caithness coast, fronting onto the Pentland Firth.*
- > *Series of concave bays (Thurso Bay, Dunnet Bay and the smaller Murkle Bay), sheltered by exposed headlands at Holborn Head, Clardon Head and Dunnet Head.*
- > *Dunnet Bay is a sweeping arc of white sandy beach backed by rolling, marram grass covered dunes, enclosed by distinctive red sandstone cliffs at Dunnet Head to the north.*
- > *Popular recreational beaches at Dunnet Bay, Thurso Bay and the less accessible Melvich Bay.*
- > *A varied hinterland of open moorland, links grassland and farmland, with settlement concentrated at Thurso, Castletown and West Dunnet.*
- > *Thurso Bay is well-developed, with a modified coastal edge including a large harbour at Scrabster and the town of Thurso which overlooks the bay.*
- > *Views across the bays to opposing headlands are available, as well as open views from the elevated headlands towards Orkney.'*

The Dunnet Bay and Thurso Bay RCCA 45 is made up of four LCCAs, namely; 45a Donald Gear's Geo to Point Ness; 45b Point Ness to Castlehill Harbour; 45c Castlehill Harbour to Clardon Head; and 45d Clardon Head to Holborn Head. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that one of these LCCAs has the potential to be affected by the Offshore Development, namely 45a Donald Gear's Geo to Point Ness, whilst the others have been discounted owing to low levels and/or limited extents of visibility and, therefore, little or no opportunity for perceived changes to coastal character. A detailed assessment of the effects of the Offshore Development on 45a Donald Gear's Geo to Point Ness is presented below.

#### **16.7.2.10 LCCA 45a Donald Gear's Geo to Point Ness**

##### **16.7.2.10.1 Baseline**

The Orkney and North Caithness Coastal Character Assessment (SNH, 2016) defines the Donald Gear's Geo to Point Ness LCCA using the following 'Key Characteristics'.

- > *'North to north-east facing Caithness coast, fronting onto the Atlantic at the mouth of the Pentland Firth.*
- > *Broad curving bay of varying character comprising medium scale cliffs and low lying foreshore, contained by Holborn Head and Clardon Head.*
- > *Characterised by urban development at Thurso and the busy Scrabster Harbour.*
- > *Recreational beach backed by the town of Thurso popular with surfers and walkers.*
- > *Thurso Bay bound by urban fringe and agricultural land, with rough grazing and open moorland at Holborn Head.*
- > *Overlooked by settlement and individual residences, the A9 and A836 roads.*
- > *Contrasting views of open panoramas from elevated headlands to framed views at a lower elevation within Thurso Bay.'*

Contrary to the description contained in the 'Key Characteristics', this coastline presents a south-west facing aspect across Dunnet Bay on the south-west side of Dunnet Head. A relatively straight line of medium-sized cliffs follow a north-west to south-east alignment from Donald Gear's Geo to Head of Man with only a few geos forming minor indentations and waterfalls flowing over the cliffs. These cliffs are backed by marshy moorland used for rough grazing. A small bay occurs in the south-east of this LCCA, beyond which the cliffs drop away to the skerries of Point Ness and the broad sandy beach of Dunnet Bay beyond. The small settlements of Dunnet, occupy this eastern side of the bay, and Castletown, the western side of the bay. Whilst the larger settlement of Thurso is largely screened by the intervening landform, the ferry port at Scrabster and the movement of the boats has an influence on this LCCA.

#### 16.7.2.10.2 Sensitivity

The value of the Donald Gear's Geo to Point Ness LCCA is medium-high. Although it is not covered by any national level designations, it is covered by the regional level designation of the Dunnet Head SLA, which denotes the regional scenic value.

The susceptibility of the Donald Gear's Geo to Point Ness LCCA to the effects of the Offshore Development will be medium. This section of coast is orientated south-west, such that it is inward looking across Dunnet Bay and with close range influences coming from the surrounding coastal landscapes. Although not orientated toward the open North Atlantic to the west, where the Offshore Development will be located, there will still be some influence with this aspect framed between the enclosing coastal edges. The Offshore Development will be located more than 25.5 km away such that it will create a relatively distant influence. Furthermore, there are influences from developments along the north Caithness coast, including Forss and Baillie Hill wind farms, albeit relatively distant and small in scale.

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

#### 16.7.2.10.3 Magnitude of change

The magnitude of change on the Donald Gear's Geo to Point Ness LCCA will be **medium-low**. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows theoretical visibility will be largely continuous along this section of coast with very small patches of lower-level visibility coinciding with the enclosure of the geos. All seven WTGs will be seen to their full extents and set in the North Atlantic, albeit set adjacent to and beyond Holborn Head and not seen in the open seascape. At a minimum distance of 25.5 km, the WTGs will appear as medium-scale structures with moving blades.

The Offshore Development will be seen to spread the influence of wind farm development into the seascape and will be seen as seven vertical structures with substructures. The enclosing coastline of the bay and the contained seascape this creates and present a stronger influence on coastal character than the wider seascape which will moderate the influence that the WTGs will have on the character of this coast. Whilst the proposed WTGs will appear at variance with the remote and natural character of the coast, this will be moderated by the influence of the settlements around Dunnet Bay and the ferry port at Scrabster. Another moderating factor will be the small number of proposed WTGs and the minimum separation distance of 25.5 km from this coastline, which means they will occupy only 1 to 5 degrees of the wider 360-degree context containing a range of influences and that the group will appear as a relatively distant feature.

#### 16.7.2.10.4 Significance of effect

The effect of the Offshore Development on Donald Gear's Geo to Point Ness LCCA will be **not significant** at a **moderate** level. This assessment relates to the containment of the bay and influence of closer range coastlines compared to the more distant seascape where the Offshore Development will be located, the distance between this LCCA and the Offshore Development, the contained nature of the group and the baseline influences from other developments, such as the settlements and ferry port. The Offshore Development will not redefine the character of this LCCA.

### 16.7.2.11 Scarfiskerry and Dunnet Head RCCA 44

#### 16.7.2.11.1 Baseline

The Scarfiskerry and Dunnet Head RCCA is located on the north Caithness coast. It extends from Donald Gear's Geo in the west to Head of Crees in the east and includes the peninsula of Dunnet Head and the smaller headlands at Scarfiskerry Point and St John's Point. The Orkney and North Caithness Coastal Character Assessment (SNH, 2016) defines this area using the following 'Key Characteristics'.

- > *'North-facing Caithness coast overlooking the Pentland Firth in the east and exposed to the open Atlantic at Dunnet Head in the west.'*
- > *Diverse coast, comprising low lying rocky platforms and small sheltered bays in the east, rising to dramatic high cliffs at the Dunnet Head peninsula in the west.*

- > *Elongated, wave-cut headland at St John's Point with a well-concealed tidal pond at Scotland's Haven to the south-east.*
- > *Farmed hinterland framed by open and exposed moorland to the east and west.*
- > *Between St John's Point and the rock formations of Hen's Head and Little Clett the coastal edge is overlooked by settlement and minor roads.*
- > *This coastline has strong historical maritime connections; particularly the role of Dunnet Head during World War II. Dunnet Head lighthouse provides a focal point.*
- > *Panoramic vistas from Easter Head at the Dunnet Head peninsula.'*

The Skarfskerry and Dunnet Head RCCA 44 is made up of six LCCAs, namely; 44a Head of Crees to Tower o' Men o' Mey; 44b Tower o' Men o' Mey to Longgeo Skerries; 44c Longgeo Skerries to Tang Head; 44d Tang Head to The Stacks; 44e The Stacks to Easter Head; and 44f Easter Head to Donald Gear's Geo. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that one of these LCCAs has the potential to be affected by the Offshore Development; namely 44f Easter Head to Donald Gear's Geo, whilst the others have been discounted owing to low levels and/or limited extents of visibility. A detailed assessment of the effects of the Offshore Development on LCCA 44f Easter Head to Donald Gear's Geo is presented below.

#### **16.7.2.12 LCCA 44f Easter Head to Donald Gear's Geo**

##### **16.7.2.12.1 Baseline**

The Orkney and North Caithness Coastal Character Assessment (SNH, 2016) defines the Easter Head to Donald Gear's Geo LCCA using the following 'Key Characteristics'.

- > *'North-west facing coast of distinctive headland at Dunnet Head.*
- > *Open and exposed to the elements, with turbulent waters where the Atlantic Ocean meets the Pentland Firth.*
- > *Coast of high red sandstone cliffs, with occasional geos and a very narrow to no foreshore.*
- > *The cliffs of Dunnet Head provide an important habitat for nesting birds.*
- > *Open, exposed wet moorland hinterland.*
- > *Limited human influence except for Dunnet Head lighthouse, a prominent focal point.*
- > *Wide open panoramic views from the coastal footpath.*
- > *This coast is a focal point from opposing Caithness shores and from the Scrabster to Stromness ferry.'*

This LCCA covers the section of coastline on the west side of Dunnet Head, the prominent peninsula that protrudes into the North Atlantic, forming the most northerly point on the Mainland of Scotland. It comprises a gently curving section of coast, characterised by high cliffs with indentations where geos and waterfalls occur. It faces west towards the Atlantic Ocean and has an open and exposed character. Moorland forms the hinterland and there is limited influence from settlements and roads in this LCCA, although visible in surrounding area. Views of the North Atlantic are framed by Hoy to the north-east and Holborn Head to the south-west. Whilst the hinterland is settled and cultivated, there are no large-scale developments close to this LCCA, although these are evident in the wider landscape, for example Forss and Baillie Hill wind farms set on, and close to the coastline to the west. Large commercial vessels and small fishing boats are periodically visible out in the North Atlantic.

##### **16.7.2.12.2 Sensitivity**

The value of the Easter Head to Donald Gear's Geo LCCA is medium-high. Although it is not covered by any national level designations, it is covered by the regional level designation of the Dunnet Head SLA, which denotes the regional scenic value.

The susceptibility of the Easter Head to Donald Gear's Geo LCCA to the effects of the Offshore Development will be medium. Whilst this section of coast is exposed to the open North Atlantic to the west where the Offshore Development will be located, it is also located more than 25.5 km away such that it will create a relatively distant influence as part of a large-scale seascape context. Furthermore, the western orientation of this coast means that it is subject to influences from the north Caithness coast, including Forss and Baillie Hill wind farms.

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

#### 16.7.2.12.3 Magnitude of change

The magnitude of change on the Easter Head to Donald Gear's Geo LCCA will be **medium-low**. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows theoretical visibility will be largely continuous along this section of coast with very small patches of lower-level visibility coinciding with the enclosure of the geos. All seven WTGs will be seen set in the open North Atlantic and seen to their full extents. At a minimum distance of 25.5 km, the WTGs will appear as medium-scale structures with moving blades.

The Offshore Development will be seen to spread the influence of wind farm development into the seascape and will be seen as seven vertical structures with substructures. The orientation of part of this coast, north-west towards the Offshore Development, will increase the influence owing to the direct alignment. Whilst the proposed WTGs will appear at variance with the remote and natural character of the coast, this will be moderated by the expanse of the North Atlantic that opens up around this coast and the location of the Offshore Development to the west, whilst the key influence is the Orkney Islands to the north. Furthermore, the small number of proposed WTGs and the minimum separation of approximately 25.5 km from this coastline, means they will occupy only 1 to 5 degrees of the wider 360-degree context. The Offshore Development will appear as a relatively distant feature and seen within a context of operational onshore wind farms, including Forss Wind Farm on the coast and Baillie Hill Wind Farm inset in the hinterland.

#### 16.7.2.12.4 Significance of effect

The effect of the Offshore Development on Easter Head to Donald Gear's Geo LCCA will be **not significant** at a **moderate** level. This assessment relates to the distance between this LCCA and the Offshore Development, the contained nature of the group amidst a wider seascape in which the key influence is north towards the Orkney Islands, and the baseline influences from other large-scale developments, despite the orientation of part of this coastline towards the Offshore Development and the sensitivity of this coastline. The Offshore Development will not redefine the character of this LCCA.

### 16.7.2.13 SCT Remote High Cliffs: Rubha Bhra to Strathy Bay LCCA

#### 16.7.2.13.1 Baseline

The section of coastline that lies between Strathy Bay in the west and Rubha Bhra in the east, is broadly orientated northwards to the North Atlantic, albeit with intermittent headlands and indentations, the latter comprising small bays, caves and geos. The coast is characterised by medium to high cliffs with a narrow rocky foreshore and occasional arches and stacks. Much of this coast is open and exposed to the maritime influences of the Atlantic, although a more introverted character occurs within the bays and geos. Whilst the central section of this coast is backed by open moorland and an absence of roads and settlement, the sections to the west and east show evidence of the rig pattern of the old coastal crofts, with linear settlement set along the access roads. Whilst there are onshore wind farms in the wider landscape, such as Strathy North to the south and Baillie Hill and Forss wind farms to the east, they have a limited influence on the character of this coast owing to their limited visibility and separation distance. Large commercial vessels and small fishing boats are periodically visible out in the North Atlantic.

#### 16.7.2.13.2 Sensitivity

The value of the Rubha Bhra to Strathy Bay coast is medium-high. Although it is not covered by any national level designations, it is covered by the regional level designation of the Farr Bay, Strathy and Portskerra SLA, which denotes the regional scenic value.

The susceptibility of the Rubha Bhra to Strathy Bay coast to the effects of the Offshore Development will be medium-high. Whilst this section of coast is broadly orientated north towards the North Atlantic, the location of the Offshore Development to the north-east means that most parts are not directly aligned. This LCCA is, however, fairly exposed to and influenced by the open seascape, which acts as one of the defining features of its character. Whilst there is some influence on this LCCA from Strathy North, Baillie Hill and Forss operational wind farms, the extents and levels of these influences and this adds to the susceptibility, despite the close-range influences from the settlements of Portskerra and Baligill in the local area which reduce the sense or remoteness. The combination of the medium-high value and the medium-high susceptibility gives rise to an overall **medium-high** sensitivity.

#### 16.7.2.13.3 Magnitude of change

The magnitude of change on the Rubha Bhra to Strathy Bay coast will be **medium-high**. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows theoretical visibility will be almost continuous along the coast with the exception of small patches of low level or no visibility coinciding with south-west facing coastal edges and enclosed geos. Where visibility occurs, all seven proposed WTGs will be seen to their full extents and at a minimum distance of approximately 8 km. They will be seen set in the open seascape to the north-east of this coast and will appear as large-scale structures with moving blades.

From the more exposed sections of this coast, where there is a stronger association with the North Atlantic, the Offshore Development will form a strong influence owing to the height of the WTGs and substructures, they will present a notable contrast as large scale structures relative to the small-scale structures along the western and eastern coastline and they will be seen to spread the influence of this type of development into a previously undeveloped seascape. Whilst the levels and extent of visibility will be less from within the small bays, the framing of the WTGs between the headlands will accentuate their prominence and lead to a similarly strong influence.

The magnitude of change is prevented from being rated higher than medium-high owing to the location of the Offshore Development offset to the north-east, such that it will not be directly aligned with the orientation of this coast, and at a minimum distance of approximately 8 km which will ensure that the WTGs will occupy only 10 to 20 degrees of the full 360-degree context. Whilst other large-scale developments are not readily visible from parts of this LCCA, the small-scale developments of Baligill and Portskerra are a feature of this LCCA and present a baseline human influence that moderates the influence of the Offshore Development.

#### 16.7.2.13.4 Significance of effect

The effect of the Offshore Development on the Rubha Bhra to Strathy Bay coast will be **significant** at a **major / moderate** level. Despite the variable levels and extent of visibility, the Offshore Development will form a new defining feature that will have a notable influence on the character of this coastline.

#### *16.7.2.14 SCT Remote High Cliffs: Strathy Bay to Strathy Point LCCA*

##### 16.7.2.14.1 Baseline

In contrast to the east-west alignment of much of the northern coastline, the section between Strathy Bay and Strathy Point follows a distinct north-south alignment, such that middle and long-range views are orientated east towards Brims Ness and Dunnet Head beyond and north-east towards the Orkney Islands. Strathy Bay comprises a small sandy beach enclosed by high cliffs to the east and west and backed by coastal crofts. Whilst Strathy Point forms a relatively straight coast of high cliffs above a narrow rocky platform, there are intermittent indentations where very small sandy bays or rocky inlets occur. Strathy Point stretches out into the North Atlantic to form a prominent landmark feature and making this coast exposed to the maritime influences, as well as exposed to the influences of the wider coastal context to the east.

The minor road that spurs north from the A836 passes along the eastern side of the peninsula, providing access to the dispersed rural settlement that occurs along its length. The Strathy Point peninsula comprises an area of open and undulating moorland with very little development other than the settlement along the eastern edge. Whilst onshore wind farms occur in the wider landscape, the combination of their distant location and limited visibility limits their influence on the character of this coastline. Large commercial vessels and small fishing boats are periodically visible out in the North Atlantic.



#### 16.7.2.14.2 Sensitivity

The value of the Strathy Bay to Strathy Point coast is medium-high. Although it is not covered by any national level designations, it is covered by the regional level designation of the Farr Bay, Strathy and Portskerra SLA, which denotes the regional scenic value.

The susceptibility of the Strathy Bay to Strathy Point coast to the effects of the Offshore Development will be medium-high. Although located a minimum of approximately 8.5 km, this is one of the closest coasts to the Offshore Development and the openness of this coast and the location of the Offshore Development in alignment with the more distant Orkney Islands means that it will form a notable influence on this LCCA. The influence of operational large-scale developments is limited by their separation distances from this LCCA and the limited extents of visibility which occur, although there is a closer-range human influence from the dispersed settlement which occurs along this coast, albeit small in scale and rural in character. This LCCA is exposed to and influenced by the open seascape, which acts as one of the defining features of its character.

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

#### 16.7.2.14.3 Magnitude of change

The magnitude of change on the Strathy Bay to Strathy Point coast will be **medium-high**. The ZTV in Figure 16.10 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows theoretical visibility will be almost continuous along the coast with the exception of very small patches of low level or no visibility coinciding with the south facing edges of the enclosed bays or geos. Where visibility occurs, all seven proposed WTGs will be seen to their full extents and at a minimum distance of approximately 8.5 km from the closest section of coast at Strathy Point. They will be seen set in the open seascape to the north-east of this coast and will appear as large-scale structures with moving blades.

The Strathy Bay to Strathy Point coast has a strong association with the North Atlantic, and as a result, the Offshore Development will form a strong influence on the LCCA, despite its location at a minimum distance of approximately 8.5 km. Owing to the height of the WTGs and substructures, they will present a notable contrast as large scale structures relative to the small-scale and rural developments along this eastern coastline and they will be seen to spread the influence of this type of development into a previously undeveloped seascape. Whilst the extent of visibility will be less from within the enclosure of Strathy Bay, the framing of the WTGs between the headlands and in views towards the Orkney Islands will accentuate their prominence and lead to a similarly strong influence.

The magnitude of change is prevented from being rated higher than medium-high owing to the location of the Offshore Development in the open seascape at a minimum distance of 8.5 km which will ensure that the WTGs will appear distinctly separate from the coast and occupy only 10 to 20 degrees of the full 360-degree context. The seascape presents a simple and expansive location, which avoids awkward comparisons of scale, although the WTGs will be seen set to the fore of the distant feature of the Orkney Islands. Whilst the influence of other large-scale developments is limited along this coastline, they do nonetheless have a presence which ensures that the Offshore Development will not appear as a new or unfamiliar feature.

#### 16.7.2.14.4 Significance of effect

The effect of the Offshore Development on the Strathy Bay to Strathy Point coast will be **significant** at a **major / moderate** level. The Offshore Development will form a new defining feature that will have a notable influence on the character of this coastline.

#### 16.7.2.15 Summary of Effects on LCCAs

The assessment of effects on coastal character has assessed ten LCCAs within a 20 km radius of the Offshore Development. The assessment found that five have the potential to be significantly affected and five not significantly affected. The five with potential to be significantly affected cover the section of coast from Strathy Point in the west to Sandside Bay in the east. The significant effects relate to the close association between these coastlines and the open seascape where the Offshore Development will be located, the relative proximity of the Offshore Development to these coastlines, the large scale of the offshore WTGs and associated substructures and the lesser influence from other large-scale energy developments occurring along these



coastlines. These effects are found to be relatively localised extending out to ranges of approximately 8 to 10 km from the Offshore Development. The effect on all other LCCAs and parts of LCCAs in the 20 km radius will be not significant. The significant effects on coastal character occur within the extents of significant effects assessed in respect of the LCTs / LCUs that occur along the coastal edge, as presented in Section 16.7.1. These effects are summarised in Table 16.9 below.

Whilst significant effects have been identified, these will be relatively localised within the SLVIA Study Area, largely affecting an area of the coast that currently has some development characteristics in the form of large-scale energy development and onshore wind farms. The localised nature of these significant effects means that the majority of the coastal receptors around the wider SLVIA Study Area will either undergo not significant effects or will not be affected.

**Table 16.9 Summary of significance of effects on Regional and Local Coastal Character Areas**

LCCA/ RCCA	Sensitivity	Magnitude of Change	Significance of Effect	Rationale
LCCA 47a Crosskirk Bay to White Geos	Medium	Medium-low	Not significant (moderate/minor)	This LCCA is already influenced by Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Dounreay Substation and Baillie Hill and Forss Wind Farms and this moderates the additional influence of the Offshore Development.
LCCA 47b White Geos to Sandside Head	Medium	Medium	Significant (moderate)	This LCCA has a close association with the North Atlantic where the Offshore Development will be located, albeit with some baseline influences from developments on the coast. The WTGs will form a notable influence on the character of this LCCA.
LCCA 47c Sandside Head to Leac Chailein	Medium-high	Medium-high	Significant (major/moderate)	This LCCA has a close association with the North Atlantic where the Offshore Development will be located. The WTGs will form a notable influence on the character of this LCCA.
LCCA 47d Leac Chailein to Rubha Bhra	Medium-high	Medium-high	Significant (major/moderate)	This LCCA has a close association with the North Atlantic where the Offshore Development will be located. The WTGs will form a notable influence on the character of this LCCA.
LCCA 46a Holborn Head to Long Rock	Medium	Medium	Not significant (moderate)	This LCCA is already influenced by Forss and Baillie Hill Wind Farms, Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Dounreay Substation and agricultural land uses. This moderates the additional influence of the Offshore Development.
LCCA 46b Long Rock to Crosskirk Bay	Medium	Medium	Not significant (moderate)	This LCCA is already influenced by Forss and Baillie Hill Wind Farm and agricultural land uses. This moderates the additional influence of the Offshore Development.
LCCA 45a Donald Gear's Geo to Point Ness	Medium-high	Medium-low	Not significant (moderate)	This LCCA is too distant from the Offshore Development for it to have a defining influence.
LCCA 44f Easter Head to Donald Gear's Geo	Medium-high	Medium-low	Not significant (moderate)	This LCCA is too distant from the Offshore Development for it to have a defining influence.

LCCA/ RCCA	Sensitivity	Magnitude of Change	Significance of Effect	Rationale
Remote High Cliffs: Rubha Bhra to Strathy Bay LCCA	Medium-high	Medium-high	Significant (major/moderate)	This LCCA has a close association with the North Atlantic where the Offshore Development will be located. The WTGs will form a notable influence on the character of this LCCA.
Remote High Cliffs: Strathy Bay to Strathy Point LCCA	Medium-high	Medium-high	Significant (major/moderate)	This LCCA has a close association with the North Atlantic where the Offshore Development will be located. The WTGs will form a notable influence on the character of this LCCA.

### 16.7.3 Effects on Landscape Designations and WLAs

The assessment considers the effects of the Offshore Development on two NSAs, two WLAs and two SLAs. The detailed assessment of the effects on the Kyle of Tongue NSA and Hoy and West Mainland NSA are presented in Appendices 16.2 and 16.3, respectively. This is because the assessment of the NSAs and WLAs follow specific methodologies and approaches which are set out in NatureScot's 'Draft Guidance for Assessing the Effects on Special Landscape Qualities' (SNH, 2018-2019) and 'Assessing Impacts on Wild Land Areas - Technical Guidance' (NatureScot, 2020), and which produce a detailed and lengthy assessment. A summary of these assessments is presented in Section 16.7.3.3 and in Section 6.11.

The assessment of the effects on the Farr Bay, Strathy and Portskerra SLA and Dunnet Head SLA are presented below.

#### 16.7.3.1 Farr Bay, Strathy and Portskerra SLA

##### 16.7.3.1.1 Baseline

THC's 'Assessment of Highland Special Landscape Areas' (THC and SNH, 2011) provides a citation for the Farr Bay, Strathy and Portskerra SLA, which lists out its key landscape and visual characteristics, as well as its special qualities. This provides a useful basis on which to establish the sensitivity of the SLA and to determine the magnitude of change the Offshore Development may have on the SLA.

- > *"Key Landscape and Visual Characteristics:*
- > *Deeply-indented coastline characterised by a repetitive rhythm of alternating rocky headlands and sheltered bays, closely related to the underlying geological structure.*
- > *Impressive assemblage of hard/rocky coastal landforms including cliffs, headlands, stacks, arches, caves and ravines.*
- > *Fine sandy beaches in the largest and most sheltered bays which form foci that contrast in colour, form and texture to the rocky coastal cliffs.*
- > *Elevated areas on the intervening high ground between the bays close to the sea provide expansive views both along the coast and out to sea, contrasting with a more enclosed, intimate visual character within the major bays. Views south to the inland mountains are a notable feature of this stretch of coast.*
- > *The large scale of the landscape, combined with often rapidly changing weather and the distinctive coastal light, creates dynamic and dramatic visual effects.*
- > *The immediate coastline is often not visible from the adjacent inland areas due to convex nature of slopes and the vertical cliffs which screen views. Consequently views tend to focus upon the waters of the Pentland Firth with its strong tides and currents which are clearly visible from many locations.*

- > *Patterns of land cover and settlement within crofting areas form a complex mosaic with moorland areas, although occurring predominantly as linear strips or isolated patches, closely associated with physical conditions including soil type and topography. Crofting and farming is largely confined to the slopes around the bays and their subtle field patterns contrast with the simple vegetation backcloth of the inland hills.*
- > *The moorland landscapes, with rolling slopes and hills and a characteristic combination of convex slopes and simple vegetation cover with rocky outcrops, become noticeably more open and sweeping in character moving eastwards towards Caithness.*
- > *Abandoned and ruined buildings occur in places, partly a reflection of the harsh, uncompromising nature of the exposed coastal landscape. These form distinctive visual elements, together with the harbours and jetties which occur at regular intervals along the coast, and evoke a sense of history.*
- > *Trees and scrub are rare, mainly restricted to crofts and settlements or in steeper glens."*

The SLA covers the north coast of Sutherland between Bettyhill in the west and Melvich in the east, as well as the immediate hinterland of moorland and crofting areas. This area is characterised by its dramatic, deeply indented coastline of rocky headlands and sheltered bays, backed by a mosaic of moorland and crofting landscapes. Views extend west along the coast to Cape Wrath and east to Dunnet Head, as well as north across the Atlantic Ocean and north-east across the Pentland Firth to the Orkney Islands.

The key landscape and visual characteristics listed above describe a landscape that is defined by the coastal character, with its prominent rocky headlands and enclosed sandy bays. Whilst reference is made to the views which are drawn south to the inland mountains, the principal views are drawn either along the coast or out to the Atlantic Ocean where the Offshore Development will be located, with the seascape having a notable influence on the character of this SLA.

#### 16.7.3.1.2 Sensitivity

Table 16.10 below, lists out the sensitivities to change identified in the 'Assessment of Highland Special Landscape Areas' and describes how the Offshore Development may affect these sensitivities.

Table 16.10 Farr Bay, Strathly and Portskerra SLA sensitivity to change

Sensitivity to change (as described within 'Assessment of Highland Special Landscape Areas')	Susceptibility in relation to Offshore Development
<i>"Development on or near the exposed cliff top landscape could interrupt the linear nature and open views or compromise the intricate nature of the coast."</i>	The Offshore Development will not be located on or near the exposed cliff top landscape and will, therefore, have no effect in respect of this sensitivity.
<i>"Infrastructure within and around existing settlements (e.g. street lighting, kerbs, signs, pavements) could individually erode their inherently rural character and collectively have a widespread impact on the area."</i>	The Offshore Development will not be located within or around existing settlements associated with the SLA and will, therefore, have no effect in respect of this sensitivity.
<i>"Visitor facilities, other than very low-key elements, within sheltered bays could erode the existing tranquility and sense of remoteness."</i>	The Offshore Development is not a visitor facility and, therefore, will have no effect in respect of this sensitivity.
<i>"Tall vertical structures or large-scale buildings could be visible in views along the coast and could be inappropriate in scale in relation to the domestic scale of existing buildings and settlements."</i>	The Offshore Development will introduce tall vertical structures and although these will seldom be seen in views along the coast they will be seen in the wider view and, therefore, will have an effect on this sensitivity.
<i>"Marine developments could affect existing views from the coastal cliffs to an uninterrupted expanse of sea below."</i>	The Offshore Development is a marine development and so will have an effect in respect of this sensitivity.

Table 16.10 above demonstrates that the Offshore Development has the potential to affect two of the five identified sensitivities to change, which relate to views featuring tall vertical structures, seen set in the seascape of the Atlantic Ocean and affecting views from the SLA.

The value of the Farr Bay, Strathy and Portskerra SLA is medium-high. The SLA is a scenic designation used by THC to denote the local value of a landscape. The 'high' rating is preserved for national scenic designations such as NSAs and National Parks. Whilst the distinctive character of the coast presents an important example of this type of landscape, other SLAs of similar character occur along the north coast.

The susceptibility of the SLA to the Offshore Development will be medium-high. The 'high' part of the rating relates to the close association between the coastal landscape and the Atlantic Ocean, where the Offshore Development will be located. The 'medium' part of the rating relates to the separation distance of 8 km between the closest part of the SLA and the closest offshore WTG which will ensure a reasonable extent of separation. This rating is also moderated by the extent to which the landscape has been modified by human artefacts, including the existing influence of wind farm developments, such as Strathy North at a minimum of approximately 5 km to the south and Bettyhill at a minimum of approximately 2.5 km to the south of the SLA.

The combination of the medium-high value of the SLA and its medium-high susceptibility to the Offshore Development leads to an overall **medium-high** sensitivity.

#### 16.7.3.1.3 Magnitude of change

Table 16.11 below sets out the special qualities of the SLA, as described within 'Assessment of Highland Special Landscape Areas', using them as the basis to assess the magnitude of change as a result of the Offshore Development.

Table 16.11 Farr Bay, Strathy and Portskerra assessment of effects

Farr Bay, Strathy and Portskerra SLA special qualities	Magnitude of change / Significance of the effect
<b>Dramatically Intricate Coastline and Forceful Sea</b>	
<p><i>"This is a distinctive stretch of rocky coastline which is typically viewed from the cliff tops and enclosed sandy beaches or from the sea by passing vessels. It is deeply eroded by the sea to form a complex assemblage of headlands, cliffs, promontories, stacks, arches, caves and ravines which combine to form unique features along the coastal edge.</i></p> <p><i>This coast can be an awe-inspiring, particularly during extreme weather or heavy oceanic swells. Access to the cliffs and coast line is readily available and allows opportunities to experience the sea's force and scale at close proximity.</i></p> <p><i>By contrast the sandy bays which alternate with the harsher cliffs and headlands provide a more focused and tranquil setting due to their low lying location and the shelter afforded by flanking cliffs.</i></p> <p><i>The lighthouse at Strathy is a popular attraction to visitors and is approached via the minor road which serves the</i></p>	<p>The Offshore Development will have no direct effect on the special qualities of the dramatically intricate coastline, owing to its location outwith the SLA, located at a minimum distance of approximately 8 km to the north-east. The Offshore Development will have no direct effect on the coastline of rocky headlands and sandy bays, or on access to these features, nor will it have direct effects on the lighthouse or netting station. The Offshore Development will, however, have an influence on the forceful sea, albeit not a direct effect on the coastal seascape included in the SLA but the wider seascape that extends offshore. The Offshore Development will alter the character of this seascape context by introducing seven large and dynamic WTGs.</p> <p>There is the potential that the Offshore Development will have indirect effects on some of these special qualities, owing to its location within the North Atlantic which forms the setting to these coastal features. The ZTV in Figure 16.11 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows almost continuous visibility of the Offshore Development along the coastline between Portskerra and Strathy Point. Despite the minimum separation distance of 9 km and the small number of offshore WTGs that will be present, the Offshore Development will introduce a new feature that will contrast with the coastal scenery and form a competing focus in views from those parts of the SLA exposed to the maritime influence.</p> <p>Taking these factors into account, the magnitude of change will be <b>medium-high</b> between Portskerra and Strathy and when combined with a medium-high sensitivity, the effect will be <b>significant</b>. This significant effect will extend across coastal parts of the SLA out to approximately 8 to 13 km from the Offshore Development</p>

Farr Bay, Strathy and Portskerra SLA special qualities	Magnitude of change / Significance of the effect
<p><i>string of crofts and houses along the eastern side of the promontory.</i></p> <p><i>Traditional netting stations now largely abandoned elsewhere in Highland are still notable around Strathy."</i></p>	<p>In those parts of the SLA to the west of Strathy Point, the magnitude of change will reduce to <b>medium-low, low</b> or <b>no change</b> owing to the screening effect of Strathy Point and other coastal headlands, which will notably reduce the extents over which the Offshore Development will be seen and partially screen the WTGs from those parts where it will be seen. In these parts the effect on this SLQ will be <b>not significant</b>.</p>
Moorland and Crofting Mosaic	
<p><i>"Rolling landforms trending towards the coast and opening out over bays provide a distinctive contrast of sequential views and experience of the landscape - enclosed or exposed, framed or open, intimate or expansive.</i></p> <p><i>There is a rich tapestry of moorland and crofting settlements with the pattern of buildings and various land cover creating a diverse mix of colour, texture, and form."</i></p>	<p>The Offshore Development will be located in the North Atlantic a minimum distance of approximately 8 km north-east, such that it will have no direct effect on the moorland and crofting mosaic.</p> <p>There is the potential that the Offshore Development will have indirect effects on some of these special qualities, owing to its location within the Atlantic Ocean which forms the setting to these coastal features and over which there is a 'distinctive contrast of sequential views'. The ZTV in Figure 16.11 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows almost continuous visibility of the Offshore Development along the coastline between Portskerra and Strathy from where the coastal crofts experience views out towards the North Atlantic. Despite the minimum separation distance of 8 km and the small number of offshore WTGs that will be present, the Offshore Development will introduce a new feature that will contrast with the small scale of the moorland and crofting mosaic and form a competing focus in views from those parts of the SLA exposed to the maritime influence.</p> <p>Taking these factors into account, the magnitude of change will be <b>medium-low</b> and when combined with a medium-high sensitivity, the effect will be <b>significant</b>.</p> <p>In those parts of the SLA to the west of Strathy Point, the magnitude of change will reduce to <b>medium-low, low</b> or <b>no change</b> owing to the screening effect of Strathy Point and other coastal headlands, which will notably reduce the extents over which the Offshore Development will be seen and partially screen the WTGs from those parts where it will be seen. In these parts the effect on this SLQ will be <b>not significant</b>.</p>
Big Skies and Extensive Views	
<p><i>"There is a distinct perception and experience of immense space and dynamism, strongly influenced by the combination of big skies, and the distinctive coastal light, and the constantly changing influence of the weather. Fine conditions allow impressive and extensive views to Orkney and along the coast to Cape Wrath and Dunnet Head while in contrast poor weather restricts views and highlights the sense of remoteness of the landscape. The buildings and structures at Dounreay form prominent features in views from Strathy Point."</i></p>	<p>The Offshore Development will have no effect on the special qualities associated with the big skies, distinctive coastal light or constantly changing influence of the weather. In terms of extensive views, the Offshore Development will be readily visible in views over the Pentland Firth to Orkney experienced from Strathy Point, as well as feature in the setting of views along the coastal edge as seen between Strathy Point and Portskerra. It will form a new development in the North Atlantic where presently there is no large-scale development. The magnitude of change will, however, be moderated by its location a minimum distance of approximately 8 km and its small number of WTGs, which will ensure the Offshore Development presents a relatively compact development. Furthermore, the Offshore Development will be seen in the context of a number of existing developments from parts of the SLA, including operational Forss, Baillie Hill, Strathy North and Bettyhill wind farms, which will moderate the overall effect.</p> <p>Taking these factors into account, the magnitude of change will be <b>medium</b> from the coast between Strathy Point and Portskerra and when combined with the medium-high sensitivity, the effect will be <b>significant</b>.</p>



Farr Bay, Strathy and Portskerra SLA special qualities	Magnitude of change / Significance of the effect
	In those parts of the SLA to the west of Strathy Point, the magnitude of change will reduce to <b>medium-low, low</b> or <b>no change</b> owing to the screening effect of Strathy Point and other coastal headlands, which will notably reduce the extents over which the Offshore Development will be seen and partially screen the WTGs from those parts where it will be seen. In these parts the effect on this SLQ will be <b>not significant</b> .
<b>Historical Dimension</b>	
<i>"The remains of Borge Castle situated on a natural promontory with a defensive bank built across the neck and with some ramparts and some masonry from the keep walls still visible, is one of the few surviving medieval (c. 16th-17th century) defended promontory forts in this part of the north coast."</i>	<p>The Offshore Development will have no effect on Borge Castle or its setting. The ZTV in Figure 16.11 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that the Offshore Development will not be visible from this location or the surrounding area from which it may be viewed in its coastal setting.</p> <p>The Offshore Development will have no effect on this special quality.</p>

#### 16.7.3.1.4 Significance of effect

The effect of the Offshore Development on three of the four special qualities of the SLA will be **significant** in the localised extent of the coastline between Portskerra and Strathy out to a range of 8 to 13 km, and **not significant** in all remaining parts of the SLA, which make up the majority of the SLA. The location of the Offshore Development a minimum of approximately 8 km from the closest part of the SLA, means that it will have no direct effects on the SLA, only indirect effects in respect of its visibility as seen within the wider seascape setting. These indirect effects will, however, be made notable by the location of the Offshore Development in the North Atlantic, where it will be readily visible from localised parts of this coastal SLA and present a contrasting feature in a setting, where presently there is no other large-scale development.

#### 16.7.3.2 Dunnet Head

##### 16.7.3.2.1 Baseline

THC's 'Assessment of Highland Special Landscape Areas' (THC and SNH, 2011) provides a citation for Dunnet Head SLA, which lists out its key landscape and visual characteristics, as well as its special qualities. This provides a useful basis on which to establish the sensitivity of the SLA and to determine the magnitude of change the Offshore Development may have on the SLA.

- > *"Key Landscape and Visual Characteristics:*
- > *A peninsula offering a spectacular panorama both seaward and inland to distant mountain peak.*
- > *The headland which is massive in scale and formed from Old Red Sandstone. In detail, the cliffs form a complex cracked, fissured and eroded profile, with prominent and distinctive horizontal strata clearly visible.*
- > *Reaching heights of up to 100m, the cliffs form an abrupt and sharply defined vertical edge to the coastline viewed against the open sea from distance. From distant viewpoints, these are seen to rise in stark contrast to the open sea while, from the cliff tops, the sense of exposure can be dramatic and, for some, intimidating.*
- > *Low vegetation clings to the cliff tops, ledges, and eroded faces and parts of the rocky shoreline. The rich green hues of algae growing on damp areas of the cliff faces provide further striations of contrast against the red sandstone rock face.*



- > Sea birds including puffins frequent the cliff ledges and steep coastal grasslands. Together with the pounding spray and constant swell, the sounds and activity of these birds contribute to a dynamic experience.
- > Sweeping moorland, punctuated by lochans, hilltops and the remains of WWII defensive structures, forms a contrasting open interior to the peninsula, where remote qualities can be experienced within a short distance from the busier settled areas.
- > Elevated views from the peninsula reveal a pattern of pasture and arable fields to the south; these form a distinctive transition between the exposed headland and the settled agricultural lowlands to the south."

The SLA covers the most northerly point of Scotland, where Dunnet Head projects out from the Caithness coast into the Pentland Firth. This SLA is characterised by its prominent headland, its dramatic vertical cliffs and its hinterland of moorland and crofting areas. With the sea wrapping around this exposed headland, there is a strong maritime influence. Key views extend out over the Pentland Firth to Orkney, as well as westwards along the coast to Strathy Point and distant Cape Wrath in good conditions, and eastwards to Duncansby Head. The focus of views inland is drawn southwards to the distant, isolated mountains including Morvern, Maiden Pap and Scaraben on the southern side of the expansive Flows.

#### 16.7.3.2.2 Sensitivity

Table 16.12 below, lists out the sensitivities to change identified in the 'Assessment of Highland Special Landscape Areas' and describes how the Offshore Development may affect these sensitivities.

Table 16.12 Dunnet Head sensitivity to change

Sensitivity to change (as described within 'Assessment of Highland Special Landscape Areas')	Susceptibility in relation to Offshore Development
<i>"Development could impinge on either the views towards the headland from the east and west or the expansive panorama seen from Dunnet Head itself."</i>	The Offshore Development will not be located on or near the exposed cliff top landscape and will, therefore, have no effect in respect of this sensitivity. It will, however, be visible in the expansive panorama from Dunnet Head.
<i>"Development could disrupt the gentle curve of Dunnet Bay and disturb its qualities of seclusion."</i>	The Offshore Development will be located more than 25 km from Dunnet Bay and, therefore, will not disrupt the gentle curve of the bay nor disturb its qualities of seclusion and generally have no effect in respect of this sensitivity to change.
<i>"Large-scale structures on or near to the headland could compromise its perceived large scale and the seeming extensive character of the interior moorland in addition to the peninsula's distinctive landmark qualities."</i>	The Offshore Development will be located approximately 27 km from the headland and, therefore, will not compromise its perceived large scale or distinctive landmark qualities. It will also be sufficiently separated from the interior moorland to limit its effect on this feature.

Table 16.12 above demonstrates that the Offshore Development has the potential to affect one of the three identified sensitivities to change, which relates to its presence and influence in panoramic views from Dunnet Head, as well as other parts of the SLA.

The value of the Dunnet Head SLA is medium-high. The SLA is a scenic designation used by THC to denote the local value of a landscape. The 'high' rating is preserved for national scenic designations such as NSAs. Whilst the distinctive character of the coast presents an important example of this type of landscape, other SLAs of similar character occur along the north coast.

The susceptibility of the SLA to the Offshore Development will be medium. Whilst there is a close association between the coastal landscape and the Atlantic Ocean, where the Offshore Development will be located, this will be moderated by the separation distance of 25 km. This rating is also moderated by the extent to which the landscape has been modified by human artefacts, including the existing influence of wind farm developments, such as Baillie Hill at a minimum of approximately 16 km to the south-west and Forss at a

minimum of approximately 17 km to the west of the SLA. At Dunnet Head, the presence of the lighthouse, associated buildings and car park and the high volume of visitors, detracts from the sense of seclusion and remoteness found in other parts of the SLA.

The combination of the medium-high value of the SLA and its medium susceptibility to the Offshore Development leads to an overall **medium-high** sensitivity.

### 16.7.3.2.3 Magnitude of change

Table 16.13 below sets out the special qualities of the SLA, as described within 'Assessment of Highland Special Landscape Areas', using them as the basis to assess the magnitude of change as a result of the Offshore Development.

Table 16.13 Dunnet Head assessment of effects

Dunnet Head SLA special qualities	Magnitude of change / Significance of the effect
<b>Panoramic Views from Prominent Headland and Striking Cliffs</b>	
<p><i>"The prominent headland forms a striking large landmark at the northernmost point of the British mainland. High numbers of visitors travel along the single-track road to the viewpoint and lighthouse which occupies a commanding position and is itself a prominent feature in views from land and sea."</i></p> <p><i>"Views to the sheer cliffs of distinctive, horizontally layered Old Red Sandstone are enlivened by the changing light and weather conditions, the crashing waves of the Pentland Firth and the presence of many species of nesting sea birds."</i></p> <p><i>"Distinctive landform features also include ravines such as Red and Chapel Geos, crags and promontories such as The Neback and Easter Head, and by areas of rocky coast where the cliff have slumped and eroded."</i></p> <p><i>"In clear conditions expansive views are obtained, from the cliff tops and from elevated positions, extending across the sea to Orkney, Cape Wrath, Strathy Point, Duncansby Head, and inland to the peaks of Caithness including Morvern, Maiden Pap and Scaraben. These views looking across flat terrain or a low seaward horizon, are so expansive that they can prompt strong emotional responses, including evoking an "edge of world" feeling."</i></p>	<p>There is the potential that the Offshore Development will have indirect effects on some of the SLA's special qualities, owing to its presence within the wider seascape setting to the SLA. The ZTV in Figure 16.11 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that visibility will extend from Dunnet Head around the western coastal edge to Dunnet Bay with some extension of visibility into the hinterland. The seven offshore WTGs will be seen at a minimum distance of 25 km making them appear as a relatively distant and compact group, as represented by the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c) where they are shown to account for 1 to 5 degrees of the full 360-degree panorama.</p> <p>The Offshore Development will spread the influence of wind farm development into this part of the North Atlantic and form a readily apparent group in views along the north coast towards Strathy and, in very good weather conditions, Cape Wrath. The effect will be moderated by the fact that the Offshore Development will be seen associated with the coast to the west and will not feature in the key view across the Pentland Firth to Orkney and also it will be seen within a contained portion of a much more expansive seascape that extends to the north and north-east.</p> <p>The Offshore Development will be seen in the context of operational wind farms, Baillie Hill and Forss, seen set in the coastal landscape to the west, at a minimum distance of approximately 16 km and 17 km respectively and this association with existing baseline developments will also moderate the effects of the additional WTGs.</p> <p>Taking these factors into account, the magnitude of change will be <b>medium-low</b> and the effect will be <b>not significant</b>, despite the medium-high sensitivity and the extent of high-level visibility along the western coastline.</p>
<b>Isolated Moorland and Lochans</b>	
<p><i>"Inland from the sea cliffs the headland consists of an outlying area of moorland with scattered lochans, isolated from the landward moors by a farmed and settled coastal strip that extends across the neck of the peninsula."</i></p> <p><i>"The moorland seems extensive, even though it is actually quite small in extent, as its edges are</i></p>	<p>The Offshore Development will have no direct or indirect effects on the special qualities of the isolated moorland and lochans, owing to its location outwith the SLA and at a minimum distance of approximately 25 km.</p>

Dunnet Head SLA special qualities	Magnitude of change / Significance of the effect
<i>typically not seen from its interior, and there is a lack of comparable size indicators."</i>	
Contrasting Bay and Cliff Landscapes	
<i>"The sweeping curve of fine sandy beach and sheltered agricultural landscape at Dunnet Bay seems to form a secluded haven in sharp contrast to the elevated and dramatic headland which projects beyond."</i>	The Offshore Development will have no direct or indirect effects on the special qualities of the contrasting bay and cliffs landscape owing to its location outwith the SLA and at a minimum of approximately 25 km.

#### 16.7.3.2.4 Significance of effect

The effect of the Offshore Development on the special qualities of the SLA will be **not significant**. The location of the Offshore Development a minimum of approximately 25 km means that it will have no direct effects on the SLA, only indirect effects in respect of its visibility within the wider seascape setting. The effects will relate specifically to the views from Dunnet Head SLA, west along the northern coast to Strathy and Cape Wrath, in clear conditions. Whilst the Offshore Development will form an apparent addition, its effect on the SLQ of the panoramic views will be moderated by its distant location, contained extents, existing influence from onshore wind farms and much wider panoramic view of an expansive seascape in which the key attraction is the Orkney Islands to the north.

#### 16.7.3.3 Summary of Effects on Landscape Designations and WLAs

The assessment of effects on landscape designations has assessed two NSAs, two WLAs and two SLAs with potential to be significantly affected. The effects of the Offshore Development on the Kyle of Tongue NSA, is presented in Appendix 16.2 and on the Hoy and West Mainland NSA, is presented in Appendix 16.3. The assessment found that of these four landscape designations and two WLAs, only one will be significantly affected in localised parts, namely the Farr Bay, Strathy and Portskerra SLA. The significant effects relate to the close association between these coastlines and the open seascape where the Offshore Development will be located, the relative proximity of the Offshore Development to these coastlines, the large scale of the offshore WTGs and associated substructures, and the lesser influence from other large-scale energy developments occurring along these coastlines between Portskerra and Strathy Point. These effects extend out to range of approximately 8 to 13 km from the Offshore Development. These effects are summarised in Table 16.14 below.

Whilst significant effects have been identified, these will be relatively localised within the SLVIA Study Area, largely affecting designated landscapes that currently have some development characteristics in the form of large-scale energy development and onshore wind farms. The localised nature of these significant effects means that the majority of the landscape designations and WLAs across the wider SLVIA Study Area will either undergo not significant effects or will not be affected.

Table 16.14 Summary of significance of effects on Landscape Designations and WLAs

Landscape Designations / WLAs	Sensitivity	Magnitude of Change	Significance of Effect	Rationale
Farr Bay, Strathy and Portskerra SLA	Medium-high	Medium / Medium-low Low No change	Significant – moderate level Not significant – moderate / minor level No effect	There will be significant effects on localised parts of the Farr Bay, Strathy and Portskerra SLA between 8 and 13 km and relating to the close association between these parts and the North Atlantic where the Offshore Development will be located.

Landscape Designations / WLAs	Sensitivity	Magnitude of Change	Significance of Effect	Rationale
Dunnet Head SLA	Medium-high	Medium-low No change	Not significant – moderate level No effect	Dunnet SLA is too distant from the Offshore Development for it to become the defining feature on landscape character.
Kyle of Tongue NSA	Medium-high	Medium-low / Low No change	Not significant – moderate level No effect	Kyle of Tongue NSA is too distant from the Offshore Development for it to become the defining feature on landscape character.
Hoy and West Mainland NSA	Medium-high	Low No change	Not significant – moderate / minor level No effect	Hoy and West Mainland NSA is too distant from the Offshore Development for it to become the defining feature on landscape character.
East Halladale Flows WLA	Medium-high	Medium-low / Low No change	Not significant – moderate level No effect	There will be no significant effects on the East Halladale Flows WLA owing to existing influences from other large scale developments and the separation distance of over 11 km.
Hoy WLA	Medium-high	Low No change	Not significant – moderate / minor level No effect	Hoy WLA is too distant from the Offshore Development for it to become the defining feature on landscape character.

## 16.7.4 Effects on Representative Viewpoints and Principal Visual Receptors

### 16.7.4.1 Viewpoint 1: Beinn Ratha

#### 16.7.4.1.1 Baseline

This viewpoint is located at the summit of Beinn Ratha and was selected to represent the view experienced by hill walkers. It is also representative of views which will be experienced across the wider landscape and to the north of the hilltop. There is no formal parking or defined route to guide walkers up the hill. The ground has a high water table and contains extensive areas of bog. The hill is not difficult to climb although the ground conditions may discourage some walkers, especially as there is no path. Although there is little evidence to suggest this is a frequently climbed hill, it provides one of the few clear vantage points accessible from this section of the northern and settled coastline.

The summit of Beinn Ratha is at an elevation of 242 m AOD; not a high hill but, within the context of the surrounding Sweeping Moorland LCT, high enough to afford a 360-degree panoramic view of the surrounding landscape and seascape. The character of the view varies; to the west and south the large expanse of the Sweeping Moorland LCT appears in parts wild and remote; whilst to the east and north, the Coniferous Woodland Plantation LCT and the Farmed Lowland Plain LCT presents a contrast with its settled and cultivated landscapes. The forestry to the immediate east of Beinn Ratha forms an almost continuous blanket covering across the low hills.

The coastal edge presents an aspect of contrasting character to this view. Its character appears flatter and more settled with the green of improved pasture and faint outline of field patterns denoting the agricultural land use. Small scale development can be seen concentrated in the settlement of Reay and scattered across the rural landscape. The larger scale developments of Dounreay Nuclear Power Facility and Forss Wind Farm are visible along the coast, with Baillie Hill Wind Farm set in the hinterland, with all three developments marking large-scale energy infrastructure as a baseline feature of this coastal area.

The seascape occupies a horizontal extent of approximately 130 degrees to the north, enclosed by the landform of the sweeping moorland to the west and the farmed lowland plains to the east, although with the foreground of the sweeping moorlands screening the full extents. The Orkney Isles can be seen as a distant feature to the north-east. Whilst the seascape presents a relatively large-scale feature in the view, it is the combination of the landscape and the seascape that characterises this view.

#### 16.7.4.1.2 Sensitivity

The value of the viewpoint and the view is medium-high. Beinn Ratha and the surrounding landscape are not covered by any national or regional designations, which would otherwise denote a special scenic landscape value. The hill is, however, covered by the East Halladale Flows Wild Land Area, which is a mapped interest, and the viewpoint is located on the summit of the hill, which acts as an informal outlook.

The susceptibility of viewers to the Offshore Development is medium. This view is experienced by walkers, who have a heightened awareness and appreciation of their surroundings. Their susceptibility is, however, moderated by the existing influence of large-scale energy developments in the view, with Dounreay Nuclear Power Facility, Baillie Hill Wind Farm and Forss Wind Farm, all visible in the north sector, where the Offshore Development will also be located.

The combination of the medium-high value of the viewpoint and view, and the medium susceptibility of viewers, leads to an overall sensitivity rating of **medium-high**.

#### 16.7.4.1.3 Magnitude of change

The magnitude of change on the views of walkers on Beinn Ratha will be **medium-high**. The wireline in Figure 16.31f and photomontage in Figure 16.31h (Offshore EIAR [Volume 4]: Appendix 16.9a) show that all seven offshore WTGs will be readily visible, seen set in the open seascape beyond the northern Caithness coast. At a minimum distance of 12.9 km and occupying only 20 to 30 degrees of the full 360-degree view, as shown on the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c), the proposed WTGs will appear as a middle range and compact group, with the seven WTGs evenly spaced in the worst case scenario presented.

Those factors that add to the magnitude of change include the fact that the Offshore Development will introduce WTGs into a previously undeveloped seascape, albeit one in which large vessels and small fishing boats occasionally cross. Their prominence will be accentuated by their tall vertical structures, exposed yellow substructures and the movement of the blades. They will also appear large in comparison to the operational onshore wind farms and be seen in a much more exposed part of the view.

Those factors that moderate the magnitude of change include the fact that the separation distance of 12.9 km will reduce to some extent the scale of the WTGs, the open seascape presents a simple and expansive setting without features that would otherwise accentuate their large scale, and the WTGs would be located in a broad field of view, such that the seascape will be seen to continue around and beyond the WTGs and therefore its expansiveness will not be affected. Whilst the Offshore Development will contrast with the simplicity and openness of both seascape and the open moorland from the north round to the east of this viewpoint, its effects will be moderated by the human influences that occur to the north-east, namely Dounreay Nuclear Power Facility and Vulcan NRTE, at approximately 6 km to the north-east, Forss and Baillie Hill wind farms, at approximately 11 and 8 km to the north-east and east, and the settlement of Reay and the A836, at approximately 3 km to the north. Furthermore, operational Strathay North Wind Farm is visible from this hilltop at approximately 15 km to south-west. These modern, developed artefacts ensure that development is an established part of the baseline character of this view and will reduce the extent to which the Offshore Development will change this view.

#### 16.7.4.1.4 Significance of effect

The significance of the effect on views from the Beinn Ratha as a result of the Offshore Development will be **significant** at a **major / moderate** level. This assessment relates to the introduction of wind farm development into the previously undeveloped open seascape, despite the well-balanced and contained appearance of the Offshore Development and the baseline influence from other large-scale developments readily visible in this view.



#### 16.7.4.2 Viewpoint 2: Strathy Point Car Park

##### 16.7.4.2.1 Baseline

This viewpoint is located on Strathy Point, which is the elongated headland that stretches north from the village of Strathy. The viewpoint is situated next to an interpretation board, adjacent to the car park, north of which visitors must travel on foot to reach the lighthouse on the point. The view is orientated north-east over the coastal edge to the open seascape of the North Atlantic. The viewpoint is representative of the views of residents who live on the headland as well as visitors to this scenic, coastal location.

The landscape is classified as Sweeping Moorland and Flows and marks a northerly extension to the much broader extent of this LCT to the south. The coast is classified as Remote High Cliffs at the national level but is not covered by the Coastal character assessment: Orkney and North Caithness (SNH, 2016) which defines coastal character at the local level. For the purposes of this assessment, this section of coastline has been defined as 'SCT Remote High Cliffs: Strathy Bay to Strathy Point LCCA'. The landcover comprises rough grasslands which are used mostly for hill sheep farming with also occasional fields of improved grasslands. The minor road that connects the A836 with Strathy Point traverses the eastern side of the headland and it is along this road that settlement is concentrated, historically as farming crofts and in modern times as residential properties with occasional farms. The majority of these properties are orientated eastwards or north-eastwards towards the seascape.

This is an open landscape with an absence of tree cover and limited enclosure from the dispersed properties and fence lines. There is a strong maritime influence with the coastline of Strathy Headland visible in the near to middleground and the cliffs of the north coast seen to stretch eastwards into the distance. There are no large-scale developments visible from this viewpoint, although development is evident in the form of Strathy Lighthouse, the rural properties, the minor road and pole mounted wires, with these features detracting from the sense of remoteness.

The seascape occupies a horizontal extent of approximately 170 degrees between north and east, enclosed by the landform of the sweeping moorland to the north, west and south, which also screens visibility of the coastal edge to the east. The Orkney Isles can be seen as a distant feature to the north-east and is framed as a central feature in views from this coast. Whilst the seascape presents a relatively large-scale feature in the view, it is the combination of the landscape and the seascape that characterises this view.

##### 16.7.4.2.2 Sensitivity

The value of the viewpoint and the view is medium-high. Strathy Point is covered by the regional designation of Farr Bay, Strathy and Portskerra SLA, which denotes a special scenic landscape value at the regional level. Next to the car park there is an interpretation board and the attraction of the lighthouse at the point make this a popular stop for visitors

The susceptibility of viewers to the Offshore Development is high for residents and medium-high for visitors. The high susceptibility for residents relates to the fact that the majority of the rural properties are orientated east or north-east towards the location of the Offshore Development, that this aspect is open, and the sea presents one of the key features, the influence of other developments in these views is limited and that residents will typically be experiencing views over long periods of time. One of the key characteristics of this location is the strong association between the land and the ocean and views are naturally drawn across the open seascape. The susceptibility of visitors is rated medium-high, as their susceptibility is influenced by similar factors to those of residents, albeit that they will experience views over a limited period of time.

The combination of the medium-high value of the viewpoint and view, and the high or medium-high susceptibility of viewers, leads to an overall sensitivity rating of **medium-high**.

##### 16.7.4.2.3 Magnitude of change

The magnitude of change arising as a result of the Offshore Development will be **medium-high**. The Offshore Development will be located a minimum of 9.3 km from the viewpoint, and all seven WTGs, including substructures will be visible, as shown in the wireline in Figure 16.32e and the photomontage in Figure 16.32g (Offshore EIAR [Volume 4]: Appendix 16.9a). They will be seen in the open seascape to the north-east of the



viewpoint and be seen to occupy 10 to 20 degrees of the wider 360-degree view, as shown on the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The high part of the rating relates to the fact that there is a close association between this section of coastline and the area of open seascape in which the Offshore Development will be located and that views of many of the residents, road-users and walkers are naturally drawn in this direction, especially in clear conditions when the Orkney Isles are visible. The seven WTGs will be seen to their full extent as tall vertical structures with moving blades and exposed yellow substructures set on the surface of the sea. The WTGs will be seen to introduce wind farm development into a previously undeveloped seascape and within a wider context in which the baseline influences from other large-scale developments are limited.

The medium part of the rating relates to the fact that the Offshore Development will be seen in a view where there are already human influences, albeit with development and agricultural land uses typically small in scale and rural in character, and where visibility of onshore wind farms is distant and limited in extent. The location of the WTGs, a minimum of 9.3 km offshore, combined with the simplicity and expansive nature of the seascape, will help to reduce their perceived scale. Furthermore, the small number of WTGs means they will occupy only a very limited extent of the wider seascape and view.

#### 16.7.4.2.4 Significance of effect

The effect of the Offshore Development on residents, road-users and walkers at Strathy Point will be **significant** at a **major / moderate** level. This assessment relates to the close association between this coastline and the seascape in which the Offshore Development will be located, the location of the Offshore Development a minimum of approximately 9.3 km from the representative viewpoint and the limited influence on this area from other large-scale developments.

#### 16.7.4.3 Viewpoint 3: Portskerra / Melvich

##### 16.7.4.3.1 Baseline

This viewpoint is located adjacent to the A836 at the more elevated western part of Melvich, close to the junction to Portskerra. This section of the A836 coincides with the open and elevated views, which extend north-east across Melvich Bay to the seascape where the Offshore Development will be located. The view is representative of the views of residents in Melvich and Portskerra, as well as road-users on the A836, which is on a Visit Scotland scenic driving route (North and West Highlands) as well as the North Coast 500 promoted route.

Whilst the landscape is classified as Coastal Crofts and Small Farms, its defining feature is the pronounced landform, which comprises steeply sloping hill slopes enclosing a small sandy bay and with headlands extending north on either side. The historic pattern of the crofts follows the main road through Melvich and the minor road through Portskerra. Whilst the crofts no longer exist, residential properties follow this linear pattern with many modern infills having replaced most of the original croft cottages.

The elevated location of Melvich and Portskerra means that scenic views open up across the bay and these are characterised by the dramatic coastal scenery. Whilst there is no large-scale development visible in this view, there is an existing influence from small scale development with a hotel and residential development lining the road up the hill and along the headland to the point. There is also the main road, with mostly light traffic, getting heavier in the summer months owing to the popularity of the North Coast 500, and pole mounted wires following this section of the road.

The seascape occupies a horizontal extent of approximately 70 degrees to the north-east, enclosed by the rising landform of the coastal edge to the west and the headland around Rubha an Tuir (96 m AOD) to the east, and with the landform screening the coastline below. In clear conditions, the Orkney Islands can be seen as a distant feature to the north-east, framed by the enclosing landform to create a focal feature. Whilst the seascape presents an important feature in the view, it is the combination of the landscape and the seascape that characterises this view.

#### 16.7.4.3.2 Sensitivity

The value of the viewpoint and the view is medium-high. Portskerra and Melvich are covered by the Farr Bay, Strathy and Portskerra SLA which denotes the regional value of this area. The viewpoint is also near a road-side car park, public toilets, and a café, which present a popular stopping point for visitors.

The susceptibility of viewers to the Offshore Development is high for residents and medium-high for road-users. Many of the properties are orientated towards the sea such that there is the possibility that their views will be affected by the Offshore Development. Their susceptibility is higher than that of road-users owing to the comparatively longer duration over which views of the Offshore Development may be experienced and the static nature of these views. This view will also be experienced by road users, many of whom will be travelling at speed, but some of whom will stop to take a break and in so doing experience the view for a longer duration.

The combination of the medium-high value of the viewpoint and view, and the high or medium-high susceptibility of viewers, leads to an overall sensitivity rating of **medium-high**.

#### 16.7.4.3.3 Magnitude of change

The magnitude of change will be **medium-high**. The Offshore Development will be located a minimum of 9.3 km from the viewpoint, and all seven WTGs and platforms will be visible, as shown in the wireline in Figure 16.33d and the photomontage in Figure 16.33f (Offshore EIAR [Volume 4]: Appendix 16.9a). They will be seen to occupy a notable extent of the open seascape to the north-east of the viewpoint, comprising 20 to 30 degrees of the wider 360-degree view, as shown on the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The high part of the rating relates to the fact that there is a close association between this section of coastline and the area of open seascape in which the Offshore Development will be located and that views of many of the residents, road-users and walkers are naturally drawn in this direction. Melvich Bay channels views northwards to where the Offshore Development will be framed between the enclosing landform, emphasising its presence and creating a new focus in this view. The seven tall structures with moving blades and exposed yellow substructures set on the surface of the sea, will appear at variance with the largely rural and small scale of development that characterises Portskerra and surrounding coastline, where baseline influences from other large-scale developments are limited.

The medium part of the rating relates to the fact that the Offshore Development will be seen in a view where there are already human influences, albeit with development and agricultural land uses typically small in scale and rural in character, and where visibility of onshore wind farms is distant and limited in extent. The location of the WTGs, a minimum of approximately 9.3 km offshore combined, with the small number of WTGs, means they will occupy only a very limited extent of the wider view.

#### 16.7.4.3.4 Significance of effect

The effect of the Offshore Development on the views of residents, road-users and walkers in Portskerra and Melvich will be **significant** at a **major / moderate** level. This assessment relates to the close association between this coastline and the seascape in which the Offshore Development will be located, the location of the Offshore Development a minimum of approximately 9.3 km from the representative viewpoint and the limited influence on this area from other large-scale developments.

#### 16.7.4.4 Viewpoint 4: Drum Hollistan layby

##### 16.7.4.4.1 Baseline

This viewpoint is located at one of the few laybys on the A836 - the route that runs along the north coast of Scotland from Tongue to John O' Groats. The viewpoint has been selected to represent the view of road users and will be apparent to those stopping at the layby and those travelling both eastbound and westbound. There are no provisions for pedestrians along this rural section of the A836 and it is unlikely that pedestrians will use this route. The route is used by a range of road-users including tourists, locals and commercial drivers, and it is perhaps the tourists who will have the highest expectations in terms of experiencing scenic views along the route. This section of the A836 forms part of National Cycle Route 1 connecting Land's End to John O' Groats and is used frequently by cyclists, the majority of whom will be travelling eastbound as this is the direction that

typically guidebooks describe. It also forms part of the North and West Highlands scenic route and the North Coast 500, which is a popular coastal route for motorists and cyclists alike.

The view will be experienced by both east-bound and west-bound road-users. The layby comes just after the road rounds a rise in the landform identified on the map as Drum Hollistan and from where views open out northwards across moorland to the North Atlantic, south-eastwards across the Sweeping Moorland LCT and eastwards into the Farmed Lowland Plain LCT. From this point, the transition between these landscapes becomes evident, with a clear contrast between the undeveloped hinterland and the developed coast. There is small-scale development visible, seen as groups of houses set into the landscape, and large-scale development, seen as Dounreay Nuclear Power Facility, Vulcan NRTE and Forss and Baillie Hill wind farms. Dounreay Nuclear Power Facility comprises a complex of large light-coloured buildings situated in a prominent position on the coast, and Forss Wind Farm, seen as a group of WTGs to the left of the facility and Baillie Hill Wind Farm, seen as a group to the right.

The seascape occupies a horizontal extent of approximately 70 degrees to the north, enclosed by the rising landform of the coastal edge to the west and Cnoc na Moine (101 m AOD) to the east. This small coastal hill also partly screens the more distant feature of the Orkney Islands, and the sweeping moorlands screen the coastline to the north. It is, therefore, only a limited extent of the wider seascape that is visible from this viewpoint and whilst the seascape presents an important feature in the view, it is the combination of the landscape and the seascape that characterises this view.

#### 16.7.4.4.2 Sensitivity

The value of the viewpoint and the view is medium. Drum Hollistan layby and the associated section of the A836, as well as the majority of the view, are not covered by any national or regional designations, which would otherwise denote a special scenic landscape value, nor does it coincide with a formal viewpoint on OS maps. The layby has, however, been located at a point on the road where there is an open view towards the east, making it an informal outlook.

The susceptibility of viewers to the Offshore Development is medium-high. This view will be experienced by road users on this scenic route, many of whom will be travelling at speed, but some of whom will stop to take a break and in so doing experience the view for a longer duration. There are few other laybys along the road and this layby appears to be well used with an interpretation board provided. Road-users will be aware of the presence of Dounreay Nuclear Power Facility, Vulcan NRTE and Forss and Baillie Hill wind farms, and these human influences will reduce their susceptibility to the introduction of the Offshore Development into the view.

The combination of the medium value of the viewpoint and view, and the medium-high susceptibility of viewers, leads to an overall sensitivity rating of **medium-high**.

#### 16.7.4.4.3 Magnitude of change

The magnitude of change on the views of road-users at Drum Hollistan will be **medium-high**. The Offshore Development will be located a minimum of 9.3 km from the viewpoint, and all seven WTGs will be visible, as shown in the wireline in Figure 16.34e and the photomontage in Figure 16.34g (Offshore EIAR [Volume 4]: Appendix 16.9a). They will be seen in the open seascape to the north of the viewpoint and be seen to occupy 20 to 30 degrees of the wider 360-degree view, as shown on the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

Those factors which increase the magnitude of change include the open aspect from this elevated section of the A836 and the orientation of west-bound road-users broadly northwards to where the Offshore Development will be located. Whilst onshore wind farms are readily evident in the baseline view, the introduction of the proposed WTGs into the seascape will increase their prominence and spread the influence of this type of development into a new sector of the view. The seven WTGs will be seen as tall structures with moving blades on the towers and exposed yellow substructures set on the surface of the sea, appearing at variance with the open seascape and open moorland which characterise much of the view. Their prominence will be accentuated by the extent to which they will occupy most of the limited extent of seascape visible in this view. Furthermore, they will appear notably larger in scale than the other operational onshore WTGs and other energy developments in the wider view.

Those factors which moderate the magnitude of change include the fact that this view will be experienced mostly by road-users travelling at a reasonable speed and with only a short west-bound section lining up to present direct views of this northerly sector – the remaining sections being at an oblique angle or in the opposite direction. Furthermore, the principal orientation of the Drum Hollistan layby is east across the sweeping moorland to Sandside Bay and not north to the Offshore Development. The presence of Baillie Hill and Forss wind farms, as well as the Dounreay Nuclear Power Facility and Vulcan NRTE within this easterly sector of the view, further moderates the influence, by presenting a baseline in which large-scale developments form part of the baseline character of the wider view, with these developments located along or close to the coastal edge to the east. Furthermore, at a minimum distance of approximately 9.3 km and located in the open seascape, the perceived scale of the WTGs will be moderated, and the small number of WTGs means they will occupy only a small proportion of the wider view, albeit set within a contained seascape and creating a visual focus. The photomontage in Figure 16.34g (Offshore EIAR [Volume 4]: Appendix 16.9a) shows how evenly spaced and compact in terms of horizontal extent the WTGs will appear and this will further reduce the effect.

#### 16.7.4.4.4 Significance of effect

The effect of the Offshore Development on the views of road-users at Drum Hollistan will be **significant** at a **major / moderate** level. This assessment relates to the openness of the view and the opportunity the layby presents for road-users to stop and enjoy this view over a longer duration. It also relates to the change that the introduction of tall WTGs into a previously undeveloped and contained view of the seascape will present, despite the small number of WTGs, their well-balanced appearance and the baseline influence from other large-scale energy developments readily visible in the view.

#### 16.7.4.5 Viewpoint 5: Sandside Head

##### 16.7.4.5.1 Baseline

Sandside Head has been selected to represent the views of visitors to this location, as well as residents who live in the surrounding area. Sandside Beach and Harbour are afforded some enclosure to the west by Sandside Head. Although rising only to a high point of 46 m, the rising landform will partially screen the Offshore Development from the beach and harbour. The viewpoint has, therefore, been located to the north-west of the beach and harbour and can be accessed by the track that leads behind the harbour properties and along the western coastal edge of the bay.

The view presents an open outlook across the rocky coastal edge, to the open seascape of the Atlantic Ocean. There is some enclosure from the high coastal cliffs to the west and, on clear days, views extend north-east to the distant feature of the Orkney Islands. The view is enclosed to the west by the rising landform of Sandside Head, with rough grasslands covering the tops of the high cliffs. To the east, the view is more open with views extending across the sandy beach and tidal waters of Sandside Bay, to the opposite headland named White Geos, with Dounreay Nuclear Power Facility and Vulcan NRTE set further along the coast. These developments present a prominent feature owing to the large scale and extent of the complex, as well as an industrial character, which is at variance with the underlying rural character.

Two wind farm developments are also visible from this viewpoint; operational Forss Wind Farm, set along the coast with the WTGs to the left of Dounreay seen as relatively small-scale structures; and Baillie Hill Wind Farm with WTGs seen set behind Shebster Hill to the right of Dounreay as medium scale structures and an apparent feature in the view. These three developments are all contained in the same east to south-east sector of the view. Despite the extent and influence of these nearby baseline developments, Sandside Bay and Sandside Head remain a popular walking and recreational destination for locals and visitors.

##### 16.7.4.5.2 Sensitivity

The value of the viewpoint and the view is medium. Sandside Bay is not covered by any national or regional designations, which would otherwise denote a special scenic landscape value and there are no formal viewpoints in this area.

The susceptibility of viewers to the Offshore Development is medium. People visit this location to enjoy the open coastal views during walks along the coast to Sandside headland. The biggest detractor is the presence of Dounreay Nuclear Power Facility, which adds an industrial character to the wider view. Furthermore, the presence of Baillie Hill and Forss wind farms to the right of the view, and the electricity transmission line across the wider view, establish large-scale energy developments as components of the baseline view. The provision of the car park and toilet block, however, highlight the fact that visitors are drawn to this location and there will still be some susceptibility attributed to their seaward views, which presents an undeveloped seascape in contrast to a developed coastline.

The combination of the medium value of the viewpoint and view, and the medium susceptibility of viewers, leads to an overall sensitivity rating of **medium**.

#### 16.7.4.5.3 Magnitude of Change

The magnitude of change on views from Sandside Head, as a result of the Offshore Development will be **medium-high**. The Offshore Development will be located a minimum of 8.2 km from the viewpoint, and all seven WTGs and substructures will be visible, as shown in the wireline in Figure 16.35e and the photomontage in Figure 16.35g (Offshore EIAR [Volume 4]: Appendix 16.9a). They will be seen in the open seascape to the north of the viewpoint and be seen to occupy 30 to 40 degrees of the wider 360-degree view, as shown on the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

Those factors which increase the magnitude of change include the absence of large-scale development in the northern sector of the view and the perceived spread in terms of the influence of large-scale development into a sector and an open seascape which previously was undeveloped. Whilst the offshore WTGs will occupy only 30 to 40 degrees of the full 360-degree view, their strong vertical form will appear at variance in contrast to the broad expanse of the open seascape and the undeveloped character of the western coastline. Their prominence will be accentuated by the movement of the blades and the exposed yellow substructures.

Those factors which moderate the magnitude of change include the simplicity and openness of the seascape in which the Offshore Development will be located, which will moderate the perceived scale of the WTGs owing to an absence of features against which their scale could be referenced, the small number of WTGs and the separation of a minimum of 8.2 km, which means they will occupy a relatively small proportion of the wider view, and their even spacing which means they present a well-balanced composition. Furthermore, these WTGs will be seen in the context of the large-scale energy developments of Dounreay Nuclear Power Facility and Vulcan NRTE, which are located along the eastern coastline, as well as Forss and Baillie Hill wind farms which have an influence on the wider view.

#### 16.7.4.5.4 Significance of Effect

The effect on views from Sandside Head as a result of the Offshore Development will be **significant** at a **moderate** level. This assessment relates to the close association between this coastline and the seascape in which the Offshore Development will be located, the location of the Offshore Development a minimum of 8.2 km from the representative viewpoint and the perceived increase in spread of this type of development from onshore to offshore.

#### 16.7.4.6 Viewpoint 6: St. Mary's Chapel, Forss

##### 16.7.4.6.1 Baseline

This viewpoint is located adjacent to the ruins of St. Mary's Kirk situated on the Lybster headland to the west of Crosskirk Bay, where the River Forss meets the Atlantic Ocean. St. Mary's Kirk is an Historic Environment Scotland (HES) site and a small car park and sign-posting is provided at Cross Kirk, on the opposite eastern side of the river. The site is reached by crossing the bridge over the river and following the path onto the headland. The viewpoint is representative of the views of visitors to this site, residents in the rural area and workers in the nearby Forss Business and Technology Park.

The importance of St. Mary's Chapel relates to its origins in the 12<sup>th</sup> Century, making it one of the oldest ecclesiastical buildings in Caithness. The church exists as a simple stone rectangular structure without a roof and is set adjacent to a more recent enclosed graveyard. The viewpoint is taken outside the northern wall to



ensure clear views across the Atlantic Ocean. The headland is relatively low with skerries fringing the northern edge, whilst on the other side of Crosskirk Bay, higher cliffs can be seen to extend further out into the Atlantic Ocean. Whilst enclosed farm fields of semi-improved grazing extend across the headland, a narrow band of unfarmed land has been preserved to the north of the chapel.

Despite the historic importance of this site and the scenic qualities of the coastal landscape, the nearby development of Forss Business and Technology Park detract from the setting. This development includes Forss Wind Farm with its six WTGs, which form the focus in views from this section of coastline. There is also small scale and sparse rural development with a small cluster of rural properties at Crosskirk. In contrast, the open seascape to the north-west and north, presents an undeveloped context, which contrasts with the extent of development along the coastal edge.

The seascape occupies a horizontal extent of approximately 150 degrees between the north-west and the north, enclosed by the gently undulating coastal landform to the west and the low cliffs of Ushat Head to the east, which also screens views of the more distant Orkney Islands. Whilst the coastline forms some degree of enclosure to the open seascape, the extent of seascape that is visible is still relatively extensive and presents a large scale and simple feature in this coastal view.

#### 16.7.4.6.2 Sensitivity

The value of the viewpoint and the view is medium-high. St. Mary's Chapel and Crosskirk are not covered by any national or regional designations, which would otherwise denote a special scenic landscape value. There is, however, local value relating to the scenic views across Crosskirk Bay to the Atlantic Ocean and the Orkney Islands, and historic value relating to the chapel and its coastal setting.

The susceptibility of viewers to the Offshore Development is medium-high. People visit this location to visit St. Mary's Chapel and enjoy the open coastal views. The biggest detractor is the presence of the nearby Forss Business and Technology Park, with Forss Wind Farm to the left of the seascape view, establishing large-scale energy developments as a component of the baseline view. The provision of the car park and sign-posted path highlights the fact that visitors are drawn to this location.

The combination of the medium-high value of the viewpoint and view, and the medium-high susceptibility of viewers, leads to an overall sensitivity rating of **medium-high**.

#### 16.7.4.6.3 Magnitude of change

The magnitude of change on views from St Mary's Chapel, as a result of the Offshore Development will be **medium-low**. The Offshore Development will be located a minimum of 10.6 km from the viewpoint, and all seven WTGs will be visible, as shown in the wireline in Figure 16.36e and the photomontage in Figure 16.36g (Offshore EIAR [Volume 4]: Appendix 16.9a). They will be seen in the open seascape to the north-west of the viewpoint and be seen to occupy 10 to 20 degrees of the wider 360-degree view, as shown on the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The magnitude of change on visitors to this viewpoint will be **medium-low**. Whilst the Offshore Development will spread wind farm development into the previously undeveloped seascape and will be seen as seven tall structures with moving blades and exposed yellow substructures, its effect will be notably moderated by the baseline presence of operational Forss Wind Farm adjacent to the viewpoint. Not only will this prevent the Offshore Development from introducing a new or unfamiliar feature into this view, it will also present a closer range wind farm development that will moderate the effects of the Offshore Development by reducing the perceived scale of the WTGs through comparison with the closer range onshore WTGs.

Those factors which also moderate the magnitude of change include the simplicity and openness of the seascape in which the Offshore Development will be located, the small number of WTGs and the separation of a minimum of 10.6 km, which means they will occupy a relatively small proportion of the wider view. They will also be seen set to the left of the wider open seascape, such that they will be seen more closely associated with the coastal edge where onshore WTGs are already a feature.



#### 16.7.4.6.4 Significance of effect

The effect on views from St. Mary's Chapel as a result of the Offshore Development will be **not significant** at a **moderate** level. Despite the spread of wind farm development into a previously undeveloped seascape that will arise as a result of the Offshore Development, the stronger influence from the adjacent Forss Wind Farm will ensure that the Offshore Development will not form the defining feature of this view.

#### 16.7.4.7 Viewpoint 7: Dunnet Head

##### 16.7.4.7.1 Baseline

Dunnet Head is the most northerly point on the north coast of Mainland Scotland. Identified as part of the High Cliffs and Sheltered Bays LCT, this rocky headland sits out into the Pentland Firth. Dunnet Head is defined by steep cliffs around a small coastal hill at 129 m AOD, which is marked on OS maps as a formal viewpoint. There is also a lighthouse situated on the northern point. Dunnet Head is accessed from the B855 and car parking, seating and interpretation boards reflect the importance of this location as a visitor attraction. The viewpoint is representative of the views of visitors to this location.

The principal draw of views from this location is northwards across the Pentland Firth which extends across almost 270-degrees of the field of view. These views are broad and expansive, extending across open sea to the north-west and focussing on the Orkney Islands to the north-east. Hoy is the closest of the islands, seen at a minimum distance of approximately 18 km, whilst South Walls and South Ronaldsay are visible further to the east. Hoy is characterised by the high, red sandstone cliffs of the western coastal edge and the rugged hills and higher moorland hills seen set within the hinterland. Development on the Orkney Islands is not readily visible with the exception of the West Hill WTG which marks out Flotta and the small and distant Ore Brae WTG on Hoy, albeit barely discernible from this range.

On Mainland Scotland, the viewpoint is surrounded by various built artefacts including Dunnet Lighthouse, a row of four residential properties, visitor car park, roads, paths and concrete shelters, all of which detract from the largely undeveloped coast. Whilst the high and rocky cliffs form a scenic feature around Dunnet Head, the surrounding farmland extends close to the coastal edge, creating an open and exposed landscape with a distinct absence of tree cover. This open and farmed landscape presents the characterising feature of this landscape, and the associated settlement is typically rural and dispersed, although consolidated settlement can be seen along more distant sections of coastline. Larger scale development is also evident with Forss Wind Farm readily visible on the coastal edge to the west and Baillie Hill Wind Farm set inland.

In clear conditions, views west extend along the northern coastline of Mainland Scotland to Strathy Point and Cape Wrath on the north-western tip, whilst to the east they extend out to the Island of Stroma and east to Duncansby Head on the north-east tip. To the south, the view extends across the expanse of the flows to the distinct profile of the lone mountains.

##### 16.7.4.7.2 Sensitivity

The value of the view from Dunnet Head is high owing to its recognition as a formal viewpoint on OS maps and its importance as a visitor attraction. The scenic value of this coastal area is also reflected by its designation as part of the Duncansby Head SLA.

The susceptibility of visual receptors to the effects of the Proposed Development is medium-high. Visitors making the approximate 6 km journey from the A836, do so, largely to appreciate the views from the most northerly point on Mainland Scotland. The main attraction from this location is northwards from the coastal edge towards the Orkney Islands, of which Hoy does form the closest feature, albeit set at a minimum distance of approximately 18 km. The expansive and panoramic nature of this view means that there is interest in every sector.

The combination of the value of the view and the susceptibility of the visual receptors to the Proposed Development gives rise to an overall **medium-high** sensitivity.

#### 16.7.4.7.3 Magnitude of change

The magnitude of change on the views of visitors at Dunnet Head will be **medium-low**. The Offshore Development will be located a minimum of 27.9 km from the viewpoint, and all seven WTGs will be visible, as shown in the wireline in Figure 16.37f and the photomontage in Figure 16.37h (Offshore EIAR [Volume 4]: Appendix 16.9a). They will be seen in the open seascape to the north-west of the viewpoint and be seen to occupy 1 to 5 degrees of the wider 360-degree view, as shown on the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The medium part of the magnitude of change rating relates to the fact that the Offshore Development will introduce seven tall structures with moving blades and exposed yellow substructures into a seascape area where currently there is no other developments. They will be seen set to the north of Strathy Point and to the fore of Cape Wrath and appear at variance with this largely undeveloped coastal edge. The low part of the magnitude of change rating relates to the fact that the Offshore Development will not be located in the key view from Dunnet Head, which is north and north-east towards the Orkney Isles where the landmark features of the cliffs and high hills of Hoy define the view. Instead, the Offshore Development will be located to the west and seen associated with the Mainland of Scotland, where operational wind farms are visible along this coastline and in the hinterland, albeit appearing subservient to the larger scale of the wider landscape. Whilst the WTGs comprise tall structures with exposed yellow substructures, the fact that there are only seven and they are set a minimum distance of 27.9 km from the viewpoint, will ensure that they occupy only a small proportion of the wider view. Furthermore, they will be seen from a viewpoint where small scale concrete structures, access roads and paths and the lighthouse, denote the baseline human influence and reduce the sense of remoteness.

#### 16.7.4.7.4 Significance of effect

The effect of the Offshore Development on visitors at Dunnet Head will be **not significant** at a **moderate** level. Whilst the Offshore Development will have an effect on visitors to Dunnet Head, these effects will be moderated by its location outwith the main focus of the view, the limited extent of the view that the WTGs will occupy and the baseline influence from other close and middle range developments, such that the Offshore Development will not redefine the character of this view.

### 16.7.4.8 Viewpoint 8: Scrabster – Stromness Ferry

#### 16.7.4.8.1 Baseline

The Scrabster to Stromness ferry connects the Mainland of Scotland with the Mainland of Orkney via the Pentland Firth. Scrabster is located on the north Caithness coast to the immediate north-west of the town of Thurso, and Stromness is located on the south-west coast of Mainland Orkney. There are six crossings a day, with the ferry passing across the Pentland Firth and coming within relatively close range of the Island of Hoy, allowing views of the west coast, including features such as the Old Man of Hoy. The view is representative of the views of passengers on the ferry as well as other sailors and passengers of water-borne vessels in the Pentland Firth. The seascape surrounds this viewpoint, creating an expansive, large scale and simple setting, with no development and only occasional passing boats.

The key attraction from both north-bound and south-bound ferries is the Island of Hoy, both in terms of the dramatic outline of the hills and cliffs from more distant ranges and spectacular coastal scenery from closer ranges. In clear conditions, views also extend along the north coast of the Mainland of Scotland, and whilst high cliffs along the coast and lone mountains within the hinterland, also present a scenic character, the broad expanse of sweeping moorland that characterises much of the Caithness landscape, presents a relatively low-lying and level landform. A further contrast also occurs between the apparent lack of development on the Island of Hoy and the occurrence of some larger scale developments on the Mainland of Scotland, albeit located a notable distance from the viewpoint. Those onshore wind farms that are most visible from this viewpoint include the Forss Wind Farm and Baillie Hill Wind Farm, both seen set close to the northern coastal edge of Caithness.

#### 16.7.4.8.2 Sensitivity

The value of the views of ferry passengers is medium. The Pentland Firth, through which the ferry route passes, is not covered by any national or regional designations which would otherwise denote a special scenic value. Whilst there are also no formal viewpoints marked on OS mapping, the deck presents an opportunity for informal views to be experienced by passengers.

The susceptibility of ferry passengers to the Offshore Development is medium-high. The openness of the seascape presents passengers with the opportunity to experience middle and long-range views in good conditions and for some ferry passengers this is an attraction of travelling by ferry. With the substantial separation between this ferry route and the surrounding land, many of the middle and long range views are long-lasting and this gives viewers an opportunity to experience them in detail.

The combination of the medium value of the views and medium-high susceptibility of the passengers leads to an overall sensitivity of **medium-high**.

#### 16.7.4.8.3 Magnitude of change

The Offshore Development will give rise to a **medium-low** magnitude of change on the views of ferry passengers. The wireline in Figure 16.38b (Offshore EIAR [Volume 4]: Appendix 16.9a) shows that all seven WTGs will be readily visible, seen set in the open seascape, close to the north Caithness coast. At a minimum distance of 26.9 km, the seven proposed WTGs will be seen as distant and relatively small-scale features, occupying only 5 to 10 degrees of the full 360-degree view available, as shown in the horizontal angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c). Their location in the south-westerly sector of the view means that they will be seen against the backdrop of the Mainland of Scotland. Although it is apparent that the hills on Mainland Scotland are more distant than the WTGs, their large scale, even at this distance is apparent owing to their scale comparison with these hills. Whilst the Offshore Development will form an apparent addition to the existing wind farms visible on the mainland in clear conditions, it will not detract notably from the key focus which will remain the Island of Hoy with its dramatic coastal scenery and high hills.

#### 16.7.4.8.4 Significance of effect

The effect of the Offshore Development on the views of ferry passengers will be **not significant at moderate** level. The presence of the Offshore Development will not form the defining feature in the views of ferry passengers, which will continue to be defined by the Orkney Islands, and in particular the dramatic coastal scenery along the west coast of Hoy.

### 16.7.4.9 Viewpoint 9: Path to Old Man of Hoy

#### 16.7.4.9.1 Baseline

The Old Man of Hoy is a famous landmark set in the Orkney Islands, on the west coast of Hoy. It is a 137 m sea stack set close to the coastal edge, with high cliffs wrapping around it. The Old Man of Hoy is accessed from the small settlement of Rackwick on the west coast of Hoy. Rackwick is separated from the Old Man of Hoy by Moor Fea (304 m AOD) around which the footpath traverses. The height of the cliffs in this section of coastline, range from 100 m to 280 m and expansive views extend across the Pentland Firth to the Mainland of Scotland.

The key features from the path to the Old Man of Hoy all relate to the close range, dramatic coastal scenery and this is what defines the views and attracts the visitors. The Pentland Firth forms an important part of the setting to this coastal edge, especially the close-range seascape surrounding the island. The Pentland Firth stretches approximately 23 km from this viewpoint to Dunnet Head on the north coast of the Mainland of Scotland, and approximately 45 km to Strathy Point. These distant coastlines and their associated seascape have a lesser influence on the character of the views than the adjacent coastlines and seascape. The open seascape occupies approximately 140-degrees of the wider view and is expansive and simple in character, with no development and only occasional passing ferries or boats.

In clear conditions, onshore wind farms and coastal settlements are visible on the Mainland of Scotland, and this presents a notable contrast with the largely undeveloped western coastline of Hoy. Other than the minor road and small settlement of Rackwick, there is little built development in this area and little modification to the

landscape. The presence of visitors and their movement along the path to the Old Man of Hoy does, however, reduce the sense of remoteness or isolation which can be found along the less visited coastal edge to the south of Rackwick.

#### 16.7.4.9.2 Sensitivity

The value of the views of walkers on the path to the Old Man of Hoy is high. This area is covered by the Hoy and West Mainland NSA which denotes the national importance of this area in terms of the scenic value of the landscape. Whilst there are no formal viewpoints along this route, the Old Man of Hoy is marked on OS maps as a tourist attraction and during site work, large numbers of visitors have been seen in the area.

The susceptibility of walkers to the Offshore Development is medium-high. Those factors that increase their susceptibility include their heightened awareness and appreciation of their surroundings, and the openness of the views across the Pentland Firth. Those factors that reduce their susceptibility include their main focus being on the immediate surroundings of the coastal scenery of Hoy and the distant location of the Offshore Development more closely associated with the coast of the Mainland of Scotland than the coast of Hoy.

The combination of the high value of the views and medium-high susceptibility of the passengers leads to an overall sensitivity of **high**.

#### 16.7.4.9.3 Magnitude of change

The magnitude of change on the views of walkers as a result of the Offshore Development will be **low**. The wireline in Figure 16.39c (Offshore EIAR [Volume 4]: Appendix 16.9a) shows that all seven WTGs will be readily visible, seen set in the seascape, close to the north Caithness coast. At a minimum distance of 34.5 km, the seven proposed WTGs occupying only 1 to 5 degrees of the full 360-degree view, as shown in the cumulative ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The separation distance of 33.7 km, combined with the small number of WTGs, means that the WTGs will be seen as distant elements occupying only a small proportion of the wider 360-degree view. There will be a substantial extent of the Pentland Firth separating the Offshore Development from the Island of Hoy and the WTGs will appear to be much more closely associated with the Mainland of Scotland, with the offshore WTGs appearing smaller than the distant landforms. Furthermore, there are operational wind farms on the Mainland of Scotland which will moderate the effects of the additional WTGs offshore.

Despite the separation distance, the WTGs will look notably larger than the onshore WTGs and will be seen to spread wind farm development into the previously undeveloped seascape, albeit one in which ferries, commercial vessels and fishing boats are seen to cross. Whilst open views occur across the Pentland Firth, there are no specific landmark features that create a focus, and the Offshore Development will form part of the wider backdrop without becoming the defining feature to these coastal views.

#### 16.7.4.9.4 Significance of effect

The effect of the Offshore Development on the views of walkers will be **not significant** at a **moderate / minor** level. The Offshore Development will not form the defining feature in the views of walkers, which will continue to be defined by the close-range and dramatic coastal scenery of Hoy.

### 16.7.4.10 Viewpoint 10: A836 East of Forss

#### 16.7.4.10.1 Baseline

This viewpoint is located on the A836 to the east of Bridge of Forss and is representative of the views experienced by road-users travelling west-bound, as well as residents who live in this area. Development in this area is relatively sparse with properties located intermittently along the A836 and some recessed from the main road via access tracks. Most of the properties face in towards the road such that their principal orientation is north or south, with views to the north extending out towards the North Atlantic where the Offshore Development will be located.

The A836 is the main road which runs along the north-east coast of Scotland and is used by locals, as well as by commercial drivers and tourists. This route is part of the North and West Highlands scenic route and North Coast 500. The views along the A836 between John O' Groats and Reay are largely characterised by the

Mixed Agriculture and Settlement LCT and this view, with its cultivated landscape, intermittent farmsteads and residential properties, is typical of this type. The landscape has been modified through centuries of farming, currently evident as medium-sized fields enclosed by post and wire fences or slates. The fields contain either improved or semi-improved pasture and, with only small groups of stunted trees or scrub in localised patches, this landscape is very exposed.

The defining feature of the view is the open aspect extending over the coastal edge to the seascape of the North Atlantic. Other features include Baillie Hill Wind Farm, which is seen across the downslope of Stemster Hill, from a minimum of approximately 4 km. Forss Wind Farm can also be seen, situated on the northern coast to the right of the view, with the six WTGs forming a readily apparent feature from a minimum of approximately 3 km.

#### 16.7.4.10.2 Sensitivity

The value of the view is medium. The view is typical of the Mixed Agriculture and Settlement LCT which occupies the north-east coast. It does not display any special scenic qualities or distinctive features, and this is reflected in the absence of national and regional landscape designations across the area. There are also no formal viewpoints in this area.

The viewpoint itself is not a formal viewpoint, but instead an arbitrary point along the side of the road. It is representative of road-users on the A836 and a small number of local residents. The susceptibility of road-users to the effects of the Offshore Development is medium as they will be experiencing the view whilst in transit and, therefore, for a shorter duration than residents. The susceptibility of residents is medium-high, as it relates to views which are potentially of longer duration, with direct views of the Offshore Development likely to occur from the properties in this area which are orientated north-west, although not all properties are orientated in this direction. For both residents and road-users, there is an existing influence from close-range onshore wind farms which moderates their susceptibility to the Offshore Development at this location.

The combination of the medium sensitivity and medium or medium-high susceptibility leads to an overall **medium** sensitivity for road-users and **medium-high** sensitivity for residents.

#### 16.7.4.10.3 Magnitude of change

The magnitude of change on the views of road-users and residents will be **medium-low**. The wireline in Figure 16.40e and the photomontage in Figure 16.40g (Offshore EIAR [Volume 4]: Appendix 16.9a) show that all seven WTGs will be readily visible, seen set in the open seascape at a minimum of 11.4 km to the north-west of the viewpoint. The seven WTGs will occupy 5 to 10 degrees of the wider 360-degree view, as shown in the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

Those factors that contribute to the medium part of the rating include the fact that the Offshore Development will spread wind farm development into the previously undeveloped seascape, and it will be located in the north-westerly sector of the view where views of residents are orientated, and views of road-users are naturally drawn. The WTGs will be seen as tall structures with moving blades and exposed yellow substructures.

Those factors that contribute to the low part of the rating include the fact that the Offshore Development will be seen in the same sector and to the immediate right of Forss Wind Farm. Although the Forss Wind Farm WTGs are notably smaller, their closer range to the viewpoint creates the illusion that they are of a comparable size to the offshore WTGs, which moderates the prominence and influence of the offshore WTGs. The presence of Baillie Hill Wind Farm inset inland from the coast adds to the extent of baseline wind farm development and, therefore, also acts to reduce the extent to which the Offshore Development will change this view. Furthermore, the seascape presents a simple and expansive location within which the proposed WTGs can be accommodated whilst avoiding the contrasts and complexities of an onshore location that would otherwise accentuate their large scale. The wider extents of the undeveloped seascape to the right of the Offshore Development will remain unaffected.



#### 16.7.4.10.4 Significance of effect

The effect of the Offshore Development on the views of residents and road-users will be **not significant** at a **moderate** level. The baseline influence of operational wind farms will moderate the effects that the spread of wind farm development into the open seascape will give rise to and prevent the Offshore Development from becoming the defining feature.

#### 16.7.4.11 Viewpoint 11: Ben Griam Beg

##### 16.7.4.11.1 Baseline

Ben Griam Beg (580 m AOD) lies 33.4 km to the south of the closest WTG. It forms one of the summits in a small group defined as part of the Lone Mountains LCT. These hills are made distinct owing to their conical form amidst the wider expanse of the Sweeping Moorlands and Flows LCT which surrounds these hills. The viewpoint is located on the hill summit and is representative of the views of hill walkers in these hills.

The approach to the summit is taken from the track junction off the A897 to Greamachary, located approximately 5 km to the south of Forsinard. The track leads over flat and boggy land to the north-east and then the pathless route to the summit ascends the steep hillside. The view from the summit is panoramic, featuring the vast expanse of the Sweeping Moorland and Flows LCT from the north through the east to the south-east, Ben Hope (927 m AOD) and Ben Loyal (764 m AOD) of the Lone Mountains LCT to the north-west and Ben Klibreck (961 m AOD) to the south-west.

The view is characterised by the surrounding expanse of gently undulating moorlands and distinct lone mountains. The north coast and Atlantic Ocean form a distant background feature which has a limited influence on the character of the view. There is very little development other than rural roads and isolated settlement, with some onshore wind farms occurring in the sweeping moorlands to the north and east, the closest being Strathy North Wind Farm to the north.

##### 16.7.4.11.2 Sensitivity

The value of the viewpoint and the view is medium-high. Ben Griam Beg is not covered by any national landscape designations but is covered by the regional level designation of the Ben Griam and Loch nan Clar SLA which denotes a special scenic landscape value. The viewpoint is located on the summit of the hill which adds to its value as it offers a natural viewpoint.

The susceptibility of viewers to the Offshore Development is medium. This view is experienced by walkers, who have a heightened awareness and appreciation of their surroundings. Their susceptibility is, however, moderated by the existing influence of large-scale energy developments in the view, with Strathy North Wind Farm located to the north, and Baillie Hill Wind Farm and Forss Wind Farm, located further to the north-east.

The combination of the medium-high value of the viewpoint and view, and the medium susceptibility of viewers, leads to an overall sensitivity rating of **medium-high**.

##### 16.7.4.11.3 Magnitude of change

The magnitude of change on the views of walkers on Ben Griam Beg will be **low**. The wireline in Figure 16.41b (Offshore EIAR [Volume 4]: Appendix 16.9a) shows that the Offshore Development will be located a minimum of 33.5 km from the viewpoint. They will occupy only 5 to 10 degrees of the full 360-degree view, as shown on the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The offshore WTGs will be seen set in the seascape off the northern coast of Caithness, albeit close to the shore. The wireline in Figure 16.41c (Offshore EIAR [Volume 4]: Appendix 16.9a) shows that it will be seen in the same northerly sector as Strathy North, seen on the left at approximately 15.2 km, and Baillie Hill Wind Farm, seen on the right at approximately 21.4 km. The magnitude of change will be low owing to the separation distance and small number of WTGs, which will ensure the Offshore Development occupies only a small proportion of the wider view, but also the baseline influence from the closer range operational wind farms, which will reduce the extent to which the Offshore Development will change this view. This is despite the Offshore Development spreading wind farm development into the previously undeveloped seascape and appearing at variance with the generally rural and undeveloped landscape.



#### 16.7.4.11.4 Significance of effect

The effect of the Offshore Development on the views of walkers on Ben Grian Beg will be **not significant** at a moderate/minor level. This assessment relates to the distant location of the Offshore Development relative to the viewpoint, and the existing influence from Strathy North Wind Farm at a closer range.

#### 16.7.4.12 Viewpoint 12: Ben Loyal

##### 16.7.4.12.1 Baseline

Ben Loyal (764 m AOD) lies 41.5 km to the south of the closest WTG. It forms one of the summits in a small group defined as part of the Lone Mountains LCT. These hills are made distinct owing to their distinctive form amidst the wider expanse of the Sweeping Moorlands and Flows LCT which surrounds these hills. The viewpoint is located on the hill summit and is representative of the view of hill walkers in these hills.

Despite Ben Loyal being a Corbett, it is known as the Queen of Scottish mountains owing to its distinctive profile, especially when viewed from the Kyle of Tongue to the north. The popular approach involves a long walk in from Ribigill in the north which allows walkers to appreciate views of the north face during the ascent. From the summit, views extend north over the Kyle of Tongue, west to Ben Hope and east to Loch Loyal.

The view from the summit is characterised by the combination of distinct groups of lone mountains set within vast expanses of sweeping moorland and flows. Although tracts have been modified by forestry and farming, much of the visible landscape appears predominantly natural with limited human influences. The largest developments visible from Ben Loyal are the onshore wind farms, the closest of which is Strathy North to the north-east. The North Atlantic stretches across the northern coastline in the north of the view, albeit seen as a background feature, secondary to the surrounding hills and wider sweeping moorlands.

##### 16.7.4.12.2 Sensitivity

The value of the viewpoint and the view is high. Ben Loyal, Ben Hope and the Kyle of Tongue are covered by the national level designation of the Kyle of Tongue NSA, which denotes a special scenic landscape value. The summit of the hill acts as an informal viewpoint which also adds to its value.

The susceptibility of viewers to the Offshore Development is medium-high. This view is experienced by walkers, who have a heightened awareness and appreciation of their surroundings. Their susceptibility is, however, moderated by the existing influence of large-scale energy developments in the view, with Strathy North Wind Farm located to the north, and Baillie Hill Wind Farm and Forss Wind Farm, located further to the north-east.

The combination of the high value of the viewpoint and view, and the medium-high susceptibility of viewers, leads to an overall sensitivity rating of **high**.

##### 16.7.4.12.3 Magnitude of change

The magnitude of change on the views of walkers on Ben Loyal will be **low**. The wireline in Figure 16.42b (Offshore EIAR [Volume 4]: Appendix 16.9a) shows that the Offshore Development will be located a minimum of 41.6 km from the viewpoint, with the seven WTGs located beyond the northern coast of Caithness. They will occupy only 1 to 5 degrees of the full 360-degree view, as shown in the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The wireline in Figure 16.42b (Offshore EIAR [Volume 4]: Appendix 16.9a) shows that the seven WTGs will be seen situated just off the northern coast of Caithness. Whilst they will be seen to extend wind farm development into the seascape, their influence on walkers will be moderated by the baseline influence of the existing onshore wind farms, most notably the two Bettyhill WTGs which are located in direct alignment with the Offshore Development, and Strathy North Wind Farm, which is located to the right but owing to its closer range and larger number of WTGs, forms a more notable feature.

#### 16.7.4.12.4 Significance of effect

The effect of the Offshore Development on the views of walkers on Ben Loyal will be **not significant** at a **moderate / minor** level. This assessment relates to the distant location of the Offshore Development relative to the viewpoint, and the existing influence from closer range onshore wind farms.

#### 16.7.4.13 Viewpoint 13: A' Mhoine

##### 16.7.4.13.1 Baseline

A' Mhoine is a peninsula on the northern coast of Sutherland, set between Loch Eriboll on the west and Kyle of Tongue on the east. The core is characterised by the blanket bog of the Sweeping Moorlands LCT, whilst the coastal edges are characterised by Coastal Crofts and Small Farms LCT. The western coastal edge between Portvasgo in the north and Skinnet in the south, is characterised by low cliffs and rocky shoreline with a small sandy bay occurring adjacent to Talmine. The land slopes up from this coastline to meet the gently undulating plateau of the moorland. The minor road extends from the A838, on the western side of the causeway across the Kyle of Tongue, north to Portvasgo and Lubinvullin, and provides access to the linear settlement which has developed along much of its length.

The viewpoint is located on this minor road to the north of Talmine and the south of Achnahuaigh. The properties are typically located on the western side of the minor road, leaving the eastern side open for the appreciation of the views. The view looks out over the rough grasses of the coastal edge and across the waters of Tongue Bay, to the group of small islands which occupy this northern part of the bay. The Rabbit Islands form a closer-range feature to the east of the viewpoint, whilst Eilean nan Ron sits further out on the seaward side to the north-east. These small and low islands are characterised by rocky edges and rounded interiors covered in rough grasses.

##### 16.7.4.13.2 Sensitivity

The value of the view and viewer is high. The viewpoint and much of the view lies within the Kyle of Tongue NSA which denotes a national scenic value.

The susceptibility of residents, road-users and walkers is high. The western coast of the Kyle of Tongue is orientated east and north-east such that views from properties tend to be aligned either east out over the kyle or north-east out towards the sea. With the Offshore Development located to the north-east this raises the susceptibility of visual receptors in this area. Furthermore, there is very little large-scale development visible from this area and this also raises the susceptibility, despite rural settlement being fairly extensive.

The combination of the high value of the view and viewers and their high susceptibility to the Offshore Development, gives rise to an overall sensitivity of **high**.

##### 16.7.4.13.3 Magnitude of change

The magnitude of change on the views of residents, road-users and walkers in this area will be **low**. The wireline in Figure 16.43e and photomontage in Figure 16.43f (Offshore EIAR [Volume 4]: Appendix 16.9a) show that all seven of the proposed WTGs will be visible, seen set behind the intervening island of Eilean nan Ron. At a minimum distance of 33.5 km, the proposed WTGs will appear as distant and small-scale features, despite their height of 300 m. They will occupy only 1 to 5 degrees of the full 360-degree view, as shown on the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

There are a number of factors which contribute to the magnitude of change that the Offshore Development will give rise to on views from A' Mhoine. Firstly, the influence from other large-scale energy developments is limited across this area, and whilst the cumulative ZTV in Figure 16.43b (Offshore EIAR [Volume 4]: Appendix 16.9a) shows Bettyhill to be visible as two tips, actual visibility will be barely discernible. The absence of other wind farm developments will increase the change that the Offshore Development will give rise to. Secondly, the offshore WTGs will be seen in a sensitive part of the view, where the outlook opens out towards the seascape and associated small islands. Thirdly, the offshore WTGs will appear at variance with the rural landscape of A' Mhoine, albeit one that is settled and cultivated.

The Offshore Development will not, however, redefine the character of views from A' Mhoine owing principally to the minimum separation distance of 33.5 km, as well as the small number of WTGs which combine to ensure they occupy only 1 to 5 degrees of the wider 360-degree view. Although the WTGs will be 300 m, from this range their size will be diminished and the scale comparison with the closer range islands will reduce their perceived scale further. The island will also screen the lower parts of the WTGs such that they will not be seen to their full extents.

#### 16.7.4.13.4 Significance of effect

The effect of the Offshore Development on the views of residents, road-users and walkers on the A' Mhoine peninsula will be **not significant** at a **moderate / minor** level. The combination of the notable separation distance of 33 km, the small number of WTGs, and their partial concealment by the intervening islands will reduce their potential influence on this view.

#### 16.7.4.14 Viewpoint 14: Ben Dorrery

##### 16.7.4.14.1 Baseline

Ben Dorrery has been selected as a viewpoint as it presents one of the few hill tops in the Flows area and, at an elevation of 244 m AOD, it affords fairly extensive views across the surrounding landscape. The viewpoint is representative of the view walkers will gain from the hilltop. It is also representative of the view from the summit of Beinn Freiceadain (238 m AOD) which is the neighbouring summit.

Although Ben Dorrery is only 244 m AOD high, it forms a distinct feature amidst the comparatively low-lying landscapes which typify this area. It is marked by a mast and ancillary control buildings, which are located at the summit. From the small cluster of houses at Dorrery, a vehicular track leads all the way up to the hilltop. The slopes are not especially steep and the landcover is predominantly heather moorland. The track makes it an easy hilltop to reach, which local walkers may well do, but it is unlikely to attract a wider range of hill walkers as it is not a high hill, and the summit is made less attractive by the mast. There are no signposts and only a small area for informal parking.

Despite the low elevation, the view from the top is fairly extensive owing to the extent of surrounding low-lying landscapes. The mast and buildings are enclosed by a perimeter fence and these features block out the view to the south-east from the viewpoint. The view is most remarkable and dramatic to the west and south where, across a large expanse of Sweeping Moorland and Flat Peatland, distant Lone Mountains stand out against the skyline. The view to the north is more complex and less distinctive, with a mix of forestry and farmland set across a low and gently undulating landscape. This more fragmented pattern of land cover, as well as the presence of Baillie Hill Wind Farm at a minimum of approximately 10 km and Forss Wind Farm at a minimum of approximately 14 km, denotes a more notable human influence in this landscape.

It is to the north that the Offshore Development will be situated, set out in the Atlantic Ocean beyond the farmed coast and afforested coastal edge. This landscape appears as a blanket of woodland, which, without any distinctive form or features, fails to draw the viewer's attention, with the exception of the hill fort to the north which creates a close-range focus. The ridge formed by the wider Sweeping Moorland landscape is relatively low and gently undulating without any focal points. Instead, it is the more distant North Atlantic which adds to the sense of location and acts as the draw to viewers looking in this north-westerly direction.

##### 16.7.4.14.2 Sensitivity

The value of this viewpoint is medium. The viewpoint and the content of the view are not covered by any landscape designations which would otherwise denote a special scenic value, although Special Landscape Areas and Wild Land Areas do cover areas further to the south and west, indicating the greater sensitivity attached to these more remote landscapes. The viewpoint does, however, have local value as it presents one of the few opportunities to gain an elevated view over this local landscape. It does not, however, appear to attract large numbers of walkers and the presence of the mast detracts from the undeveloped character which many hill walkers may seek.

The susceptibility of viewers to the Offshore Development is medium. This is moderated by the presence of existing developments in the view, most notably the mast, owing to its very close proximity to the viewpoint.

Wind farm development is also evident with the cluster of Achlachan, Bad a Cheo, Causeymire and Halsary at a minimum of approximately 12 km to the south-east, and Baillie Hill and Forss at a minimum of approximately 13 km to the north. These developments establish wind farms as a feature of the baseline view which means the Offshore Development will not form a new or unfamiliar feature. The extent of forestry further detracts from the sensitivity as this is a large-scale land use which modifies the landscape from its natural state. Other man-made artefacts are relatively small in scale and more in-keeping with the rural character.

The combination of the medium value of the view and the medium susceptibility of walkers leads to an overall **medium** sensitivity.

#### 16.7.4.14.3 Magnitude of change

The magnitude of change on the views of walkers will be **medium-low**. The wireline in Figure 16.44f and photomontage in Figure 16.44g (Offshore EIAR [Volume 4]: Appendix 16.9a) show that all seven of the offshore WTGs will be visible, seen set in the North Atlantic to the north-west of the viewpoint and close to the northern coastline. At a minimum distance of 23.3 km, the offshore WTGs will occupy only 5 to 10 degrees of the full 360-degree view, as shown on the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The medium part of the magnitude of change rating relates to the introduction of seven WTGs in the North Atlantic where previously there was no development. The WTGs also appear larger than the onshore WTGs at Baillie Hill and Forss Wind Farms. Whilst there is a dense cluster of onshore WTGs to the south-east of the viewpoint, wind farm development to the north-west is less dense and the Offshore Development will be seen to increase the spread of WTGs to the left of the operational WTGs.

The low part of the rating relates to the separation distance of 23.3 km and the small number of WTGs, which combine to ensure that the Offshore Development occupies only a small proportion of the wider 360-degree view. The presence of Baillie Hill and Forss wind farms in the same sector will moderate the change that the Offshore Development will give rise to, as there is already a baseline influence from operational WTGs. Furthermore, the position of the offshore WTGs to the immediate left of the operational WTGs ensures that this influence is contained within a compact part of the view. The effect of the WTGs is also tempered by the three hilltops of closer range Beinn Freiceadain (238 m AOD), which presents a scale comparison which reduces the perceived scale of the more distant offshore WTGs.

#### 16.7.4.14.4 Significance of effect

The effect of the Offshore Development on the views of walkers will be **not significant** at a **moderate / minor** level. This assessment relates to the closer-range influence from onshore wind farms which will moderate the influence of the Offshore Development, as well as the separation distance and the small number of WTGs that make up the Offshore Development.

#### *16.7.4.15 Viewpoint 15: Ward Hill*

##### 16.7.4.15.1 Baseline

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 Kinnaid 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 the Mainland of Orkney to the north-east.

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 the Mainland of Orkney, eastwards across Scapa Flow, westwards across the western part of the Rugged Hills LCT to the North Atlantic and southwards across the Moorland Hills LCT.

The view towards the Offshore Site is orientated south-west across the Moorland Hills LCT, which forms the core of the island and out across the North Atlantic. This area is characterised by relatively low and smoothly rounded hills, which, together with the blanket covering of moorland grasses and heather, forms an expansive and open upland landscape. There is a distinct absence of development in this landscape, which adds to its sense of remoteness, although developments are visible in the wider landscapes of the Orkney Islands and the Mainland of Scotland.

#### 16.7.4.15.2 Sensitivity

The value of this view is high. The viewpoint is located in the Hoy and West Mainland NSA and although not marked on OS maps as a formal viewpoint, the summit of Ward Hill provides a natural viewpoint.

The susceptibility of walkers on Ward Hill is 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 whilst 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 39.7 km from the viewpoint and within a contained horizontal extent of a much wider view, with other more scenic sectors. Furthermore, there is already the influence of other developments in this view with rigs, tankers and ferries often visible in Scapa Flow.

The combination of the high value of the view and the high susceptibility of walkers to the Offshore Development gives rise to an overall **high** sensitivity.

#### 16.7.4.15.3 Magnitude of change

The magnitude of change to the views of walkers will be **low**. The Offshore Development will be located a minimum distance of 39.0 km to the closest WTG. As the wireline in Figure 16.45c (Offshore EIAR [Volume 4]: Appendix 16.9a) shows, all seven of the offshore WTGs will be visible, seen set in the seascape of the North Atlantic, close to the northern coast of the Mainland of Scotland and against a backdrop of its upland landform. The offshore WTGs will occupy only 1 to 5 degrees of the full 360-degree view, as shown on the horizontal angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

Those factors which will contribute to the magnitude of change include the fact that the Offshore Development will spread wind farm development into the previously undeveloped seascape and that the offshore WTGs will appear larger than the onshore WTGs. Their influence on the view of walkers on Ward Hill will, however, be moderated mainly by the fact that these WTGs will be located a minimum of 39.0 km from the viewpoint such that they will appear as small-scale and distant features, occupying only a very small proportion of the panoramic 360-degree view. Furthermore, they will be seen in the same sector as a number of operational onshore wind farms, such that they will not be seen as a new or unfamiliar feature, although they will appear larger. Their influence will be as part of the background setting to the landmark feature of Ward Hill and its surrounding hills, which will continue to define the character of this view.

The fact that the proposed WTGs will be seen set behind the lower and less remarkable hills below Ward Hill, which also mark the less scenic southern end of the island, will reduce their prominence and influence on the character of the view. Furthermore, they will be seen in a sector of the view where the Flotta Oil terminal flare and nearby single WTG are visible, whilst in the wider view the rigs, tankers and ferries in Scapa Flow will also moderate the effect.

#### 16.7.4.15.4 Significance of effect

The effect of the Offshore Development on the views of walkers will be **not significant** at a **moderate / minor** level. This assessment relates chiefly to the substantial separation distance between the viewpoint and the Offshore Development, its association with the distant northern coastline of the Mainland of Scotland and the existing influence from onshore wind farms in this sector of the view.



#### 16.7.4.16 Viewpoint 16: Tor Ness

##### 16.7.4.16.1 Baseline

Tor Ness forms the most south-westerly corner of the Island of Hoy. From the north to the south of the west coast of Hoy, the height of the cliffs and hills falls away to the extent that Tor Ness comprises a relatively low-lying and marshy coastal headland with a low cliff no higher than 5 m and rock skerries extending out from the coastline. This viewpoint is representative of walkers in this more accessible southern part of the island and is located close to the Kilns of Hawick Lighthouse.

Whilst this south-westerly corner comprises an open expanse of moorland and marsh, it lies close to the enclosed farmland of Melsetter Farm which reduces the sense of remoteness or isolation. Further east lies Melsetter House and other dispersed settlement along the B9047. Tracks from this road open up access for walkers heading to Tor Ness, although excavation of sands has notably modified the terrain and the final section is pathless over boggy ground.

With this southern coastline being both less scenically dramatic and physically challenging, the views of walkers focus both on the immediate coastal landscape and also the wider context. The key features in the immediate area are the Kilns of Hawick Lighthouse, the rocky shoreline, the natural arch and the movement of the sea. The key features in the wider area are the Pentland Firth and the Mainland of Scotland, with the closest section of coastline occurring at Dunnet Head, approximately 12 km to the south of Tor Ness.

##### 16.7.4.16.2 Sensitivity

The value of the views of walkers in this area is medium. There are no formal viewpoints and no national or regional landscape designations which would otherwise denote a special scenic value.

The susceptibility of walkers to the effects of the Offshore Development is medium-high. The principal focus of walkers is the dramatic coastal scenery of the west coast of Hoy, which includes the high cliffs, deep geos, waterfalls and caves and the interaction of the surrounding seascape with these features. The wider Pentland Firth and the Mainland of Scotland do not form a focus in the views of walkers, but instead form the wider setting to the Island of Hoy and, as such, they have a lesser influence on the views of walkers. The susceptibility of walkers to the Offshore Development is, therefore, moderated by its distant location and association with the background setting to the views of walkers.

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

##### 16.7.4.16.3 Magnitude of change

The magnitude of change on the views of walkers will be **low**. The wireline in Figure 16.46c (Offshore EIAR [Volume 4]: Appendix 16.9a) show that all seven of the offshore WTGs will be visible, seen set in the open seascape to the west and close to the north coast of the Mainland of Scotland. At a minimum distance of 34.3 km, the offshore WTGs will occupy only 1 to 5 degrees of the full 360-degree view, as shown on the horizontal angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The view is characterised by the Tor Ness lighthouse, the dramatic coastal cliffs to the north and movement of the sea against the rocks and cliffs. These are the close-range features which define this view. In contrast, the wider open seascape of the Pentland Firth and the landscapes of the Mainland of Scotland form the background setting to these close-range views. The Offshore Development will be located a minimum of 34.3 km from this viewpoint such that it will appear as a distant feature, close to and strongly associated with the coast of the Mainland of Scotland. Whilst the WTGs will be seen to be larger than the onshore WTGs, evident along the northern Caithness Coast, within this context of operational wind farms, they will not be seen as a new or unfamiliar feature.



#### 16.7.4.16.4 Significance of effect

The effect of the Offshore Development will be **not significant** at a **moderate-minor** level. The Offshore Development will not form the defining feature in the views of walkers owing to its notable separation distance from this coastline, its association with the background setting to the views and the existing influence of onshore wind farms on the Mainland of Scotland and in the same sector of the view.

#### *16.7.4.17 Effects on Principal Visual Receptors*

##### 16.7.4.17.1 A836 / North Coast 500 / National Cycle Route 1

###### *16.7.4.17.1.1 Baseline*

The A836 is routed along the northern coast of Scotland, connecting John O' Groats in the north-east, with Tongue in the north-west, from which point it turns south and south-east to eventually connect with the A9 at the Dornoch Firth. The North Coast 500 route coincides with the A836 between Tongue and John O' Groats and this section is also part of the North and West Highlands scenic route promoted by Visit Scotland. Importantly the North Coast 500 extends further along the coast to the west into areas of greater remoteness and heightened scenic value. To the south of John O' Groats it follows the A99 and A9 and is influenced by coastal scenery as well as onshore and offshore coastal developments. The A836 also coincides with National Cycle Route 1 (NCR1) all the way from Lairg to Isauld, passing through Tongue, Bettyhill, Melvich and Reay. Those sections of the A836, North Coast 500 and NCR1 that are relevant to this assessment lie between Armadale and Hill of Scrabster although the wider sequential effects are also considered.

The views gained from the A836 are characterised by the surrounding landscapes and, as such, vary along its length, as shown in Figure 16.13 (Offshore EIAR [Volume 4]: Appendix 16.9c).

From John O' Groats to Castletown, the A836 passes close to the coast and is strongly influenced by views out towards the Island of Stroma and Orkney. From Castletown to Reay, the A836 is offset from the coast, and whilst views from elevated sections do still stretch out to the Pentland Firth, most of the views are characterised by the open and relatively flat landscape classified as Mixed Agriculture and Settlement LCT. Small settlements occur along this section and the route passes through the town of Thurso, emphasising the settled nature of this northern coast. The fields predominantly contain improved grasslands, with medium-sized fields enclosed by stone walls, or post and wire fences. Very few trees occur in this open and exposed landscape, where there is a strong horizontal emphasis and big skies.

Whilst much of the development is small scale and rural in character, there are examples of large-scale development visible from this section of the A836. Most notable are the Baillie Hill Wind Farm, Forss Wind Farm, Dounreay Nuclear Power Facility, and Vulcan NRTE, all located in the section between Thurso and Reay, and all of which come in close proximity to the road. Continuous visibility of Baillie Hill Wind Farm occurs from the A836 at Hill of Forss (Viewpoint 10) to the A836 at Drum Hollistan (Viewpoint 4) and at its closest it comes within 2.2 km of the A836. Almost continuous visibility of Forss Wind Farm occurs over the same stretch and the wind farm is located within 0.6 km of the A836. Dounreay Nuclear Power Facility, Vulcan NRTE and SSE Substation are accessed from the A836, with the closest buildings recessed approximately 500 m from the main road.

Between Bridge of Forss and Reay, whilst the character of the views is still primarily influenced by the Mixed Agriculture and Settlement LCT, a secondary influence is introduced with distant visibility of the Sweeping Moorland LCT to the south-west, which, in contrast, appear as low undulating hills of open moorland with the large tract of woodland plantations across Limekiln.

West, beyond Reay, the character of the views becomes dominated by the Sweeping Moorland LCT, which, from elevated sections, is seen juxtaposed against the rugged coastal scenery of the High Cliffs and Sheltered Bays LCT. The road dips down into the Straths LCT at Melvich and further on at Bettyhill, where the relative shelter has given rise to the establishment of small settlements and pockets of the Small Farms and Crofts LCT. West, beyond Strathy Inn, the landscape passes from the Sweeping Moorland LCT to the Moorland Slopes and Hills LCT, with slopes becoming steeper and hills more pronounced. Development in these western landscapes occurs as small settlements and isolated properties scattered along the roadside. There are very few examples of large-scale development with limited visibility of Bettyhill and Strathy North wind farms. Whilst

not remote or wild, the natural landscape and seascape are the defining elements in the character of the views from this section of the A836. Views of the sea are limited in extents by the foreground of the sweeping moorland, but more expansive where the landform falls away with the descent into the bays.

#### 16.7.4.17.1.2 Sensitivity

The sensitivity of views from the A836 varies along its length in accordance with the variations in character. The section of the A836 between John O' Groats and Reay passes through a landscape which is settled and cultivated, the sensitivity of which, in respect of views, is typically medium or medium-low on account of the following factors. Firstly, there is an absence of any landscape designation which would otherwise denote a particular sensitivity in respect of scenic value. Secondly, the agricultural landscape has been altered from its intrinsic state by human modification and is, therefore, not as sensitive as an unmodified landscape would be. Thirdly, small scale developments, such as the road and settlements, present an inhabited landscape, albeit sparse in terms of population. Fourthly, large scale developments, such as Forss Wind Farm, Baillie Hill Wind Farm, Dounreay Nuclear Power Facility and Vulcan NRTE and associated electricity transmission lines contrast with the underlying character and scale the rural landscape and reduce the sensitivity of the views to such features. Fifthly, the views are likely to be most commonly experienced from inside vehicles, which are often travelling at considerable speed along the road. Views will be transitory and often secondary to the focus of the road, especially in the driver's case, and this will moderate the sensitivity of the road-users. The exception occurs in respect of cyclists on the North Coast 500 and NCR1, which partly coincide with the A836, as they will typically be cycling at a slower speed and have a greater awareness of the wider landscape and seascape surrounding them.

The sensitivity of views from the A836 / North Coast 500 between John O'Groats and Thurso is **medium** as the coastal scenery adds a scenic quality to the outlook and there is little visibility of large-scale developments, whilst the sensitivity of views between Thurso and Reay is **medium-low** as the large-scale developments are more readily visible and detract from the rural character.

The sensitivity of views between Reay and Bettyhill is **medium-high**. Whilst the landscape is neither wild nor remote on account of the influence of the road and intermittent settlements, the moorland and coastal landscapes do contribute to more dramatic and scenic views, which, with the exception of the woodland plantations, appear largely unaltered by human intervention, and this increases their sensitivity to the introduction of man-made elements. The medium-high rating also reflects the fact that sections of the A836 pass through the regional landscape designation of Farr Bay, Strathy and Portskerra SLA and that views from the road look over the wider extents of this designation.

#### 16.7.4.17.1.3 Magnitude of change

The magnitude of change that the Offshore Development will have on the A836 / North Coast 500 will be variable along its length and different for eastbound and westbound travellers. The ZTV in Figure 16.12 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows theoretical visibility of all seven WTGs to be almost continuous between Strathy Point in the west and Scrabster Hill in the east, albeit with no visibility occurring where the road dips down into Strathy, east of Melvich, and west of Forss, and limited visibility to west of Reay.

To the west of Strathy Point, theoretical visibility is limited with the majority of the section between Strathy Point and Tongue, and south of Tongue, receiving no visibility. There will be patchy visibility on the section of the A836 to the west of Armadale, at a minimum distance of 16 to 18 km from the closest WTG, albeit with the upper parts of the Offshore WTGS seen set behind the landform of Strathy Point. The only other patch of visibility occurs to the south of Tongue and the north of Ben Loyal at a minimum distance of approximately 36 km, with the Offshore WTGS seen set behind the broad expanse of sweeping moorlands that separate this section of the A836 from the north Caithness coast. Views from the A836 to the west of Strathy Point are not considered in the detailed assessment below owing to the limited potential for significant effects to arise.

To the east of Scrabster Hill, there will be no visibility from the section of the A836 between Thurso and Scrabster Hill, and then only small patches between Thurso and John o' Groats. The small patches to the east of Thurso and around Castletown will occur at minimum distances of 19 km and 22 km with the WTGs seen set behind the closer-range landform of Scrabster Hill. There is then a small patch from the A836 to the south of Dunnet at a minimum distance of 27 km with the WTGs seen set behind Holborn Head, and a small patch of lower-level visibility from the A836 around the Castle of Mey, with the WTGs seen set behind Dunnet Head. Views from the A836 to the east of Scrabster Hill are not considered in the detailed assessment below owing to the limited potential for significant effects to arise.

#### 16.7.4.17.1.4 *Magnitude of change eastbound*

Visibility of the Offshore Development will become apparent to road-users travelling eastbound as they cross the sweeping moorland which forms the southern part of the Strathy peninsula. The seven WTGs will be seen set behind the intervening sweeping moorland from most of this section of the A836, such that the full extent of the WTGs will be screened by the intervening landform. Here the magnitude of change will be **medium** as the blades and tips will be seen to extend above the edge of the moorland at a range of approximately 12 to 15 km. It is only as the road descends, to the east of the high point, that the view opens up to the North Atlantic in the north-east and a fuller extent of the offshore WTGs will be visible at a range of approximately 11 to 12 km. Here the magnitude of change will be **medium-high** owing to the alignment of the road towards the offshore WTGs and the limited influence of other large-scale energy developments within these views. There will be no visibility around Strathy owing to its lower-lying location and enclosure from surrounding hillsides.

A similar pattern to visibility occurs between Strathy and Melvich with visibility from most of this section of the A836 reduced by the screening effect of the intervening moorland, such that the offshore WTGs will be seen as blades and tips set beyond the coastal edge and from a range of 9 to 11 km. Here the magnitude of change will be **medium** increasing to **medium-high** over the descent down towards Melvich, where again the view opens out to the North Atlantic in the north-east and fuller visibility of the offshore WTGs occurs from a context in which large-scale energy developments have a limited influence owing to their separation distance and limited visibility. Visibility to the east of Melvich reduces to no visibility and resumes only once the A836 is back on the moorland plateau to the west of Drum Hollistan.

East-bound road-users will be perpendicular to the Offshore Development in this section of the A836 between Drum Hollistan and Reay, but despite this, the magnitude of change will be **medium** where the intervening moorland partly screens the WTGs and **medium-high** where fuller visibility arises around the Drum Hollistan layby. The WTGs will be seen at a minimum of approximately 9 km and will occupy 20 to 30 degrees of the wider 360-degree view, as shown in the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c). Whilst they will be seen to spread wind farm development into the seascape to the north, their effect will be moderated by the influence of operational Forss and Baillie Hill wind farms which will align with views from the A836 to the east.

Whilst enclosure of the A836 by the buildings in Reay will reduce the magnitude of change to **low** or **no change**, there are also a substantial open section of approximately 400m adjacent to the golf course and cemetery where it will remain **medium** or **medium-high**, with the WTGs seen as tall structures with moving blades and exposed yellow substructures, set beyond Sandside Bay. In the section of the A836 between Reay and Forss, Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Substation, and Forss and Baillie Hill wind farms, are all located relatively close to the road and will present a closer-range influence that will moderate the magnitude of change arising as a result of the Offshore Development. Here the magnitude of change will be **medium-low**, despite the location of the road 8 to 9 km from the closest WTG. Beyond Forss, the Offshore Development will be positioned to the rear of the direction of travel, and this will notably reduce its influence.

#### 16.7.4.17.1.5 Magnitude of change westbound

The first large patch of visibility occurs as the A836 rounds the northern side of Scrabster Hill and the views open up along the coast and the North Atlantic. Visibility will be almost continuous between this point and the settlement of Forss and will comprise seven WTGs seen from a range between 10 to 16 km. The alignment of this section of the A836 is mostly west or south-west such that the views of road-users will not be aligned directly towards the offshore WTGs, but instead towards the six onshore WTGs of Forss Wind Farm. The more prominent position of these WTGs relative to the direction of the road, combined with their closer proximity will moderate the effects of the Offshore WTGs. The WTGs will, nonetheless, be seen to spread wind farm development into the previously undeveloped seascape and the magnitude of change will be **medium**. Visibility reduces to no visibility around Forss and resumes to the west of the settlement where the A836 rises in elevation.

Between Forss and Reay, the A836 comes within 8 to 9 km of the closest offshore WTG. All seven WTGs will be visible in the open seascape to the north-west, seen as tall structures with moving blades and exposed yellow substructures. Whilst wind farm development is readily evident from this section, the Offshore Development will be seen to spread this type of development into the previously undeveloped seascape. The magnitude of change will, however, be moderated by the existing influence of a number of large-scale energy developments in close proximity to this road, including Forss and Baillie Hill wind farms, Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Substation and all associated infrastructure. The close-range of these developments will reduce the prominence and influence of the offshore WTGs which will appear comparatively small in scale. They will also be seen perpendicular to the direction of the A836 to the south-west, with this lack of alignment further reducing their influence on the views of road-users. Here the magnitude of change will be **medium-low**.

Whilst enclosure of the A836 by the buildings in Reay will reduce the magnitude of change to **low** or **no change**, there are also substantial open or semi-open sections where it will remain **medium** or **medium-high**, with the WTGs seen as tall structures with moving blades and exposed yellow substructures, set beyond Sandside Bay. Between Reay and Drum Hollistan the magnitude of change will be **medium** where the intervening moorland partly screens the WTGs and **medium-high** where fuller visibility arises around the Drum Hollistan layby for approximately 1 km. The WTGs will be seen at a minimum of approximately 9 km and will occupy 20 to 30 degrees of the wider 360-degree view, as shown in the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c). Whilst they will be seen to spread wind farm development into the seascape to the north, their effect will be moderated by their location perpendicular to the direction of travel along this section of the A836.

Visibility which occurs from most of the section of the A836 between Melvich and Strathy will be reduced by the screening effect of the intervening moorland, such that the offshore WTGs will be seen as blades and tips set beyond the coastal edge and from a range of 9 to 11 km. Here the magnitude of change will be **medium-low** as the offshore WTGs will be positioned to the north-east, behind the west-bound direction of travel. Beyond Strathy, the Offshore Development will be positioned to the rear of the direction of travel, and this will notably reduce its influence.

#### 16.7.4.17.1.6 Significance of the effect

The effect of the Offshore Development on the A836 eastbound will be **significant** between Strathy and Reay over a distance of approximately 14.5 km and **not significant** for the remaining parts. The effect of the Offshore Development on the A836 westbound will be **significant** between Hill of Scrabster and Forss and then Reay and Melvich and **not significant** for the remaining parts. The significant effect relates chiefly to the openness of the views from the A836 towards the Offshore Development, despite the perpendicular alignment over most of this section, and the influence of the tall WTGs despite the baseline influence of large-scale energy developments in the wider landscape. The level of the significant effects will range between **major/moderate** and **moderate**, and the not significant effects will range between **moderate** and **minor**.

#### 16.7.4.18 Summary of effects on representative viewpoints and principal visual receptors

The assessment of effects on visual amenity has assessed 16 viewpoints within a 50 km radius of the Offshore Development. The assessment found that five have the potential to be significantly affected and eleven not significantly affected. The five with potential to be significantly affected cover the section of coast from Strathy Point in the west to Sandside Bay in the east. The significant effects relate to the close association between these coastlines and the open seascape where the Offshore Development will be located, the relative proximity of the Offshore Development to these coastlines, the large scale of the offshore WTGs and associated substructures and the lesser influence from other large-scale energy developments occurring along these coastlines. These effects extend out to range of approximately 8 to 13 km from the Offshore Development and include Beinn Ratha in the sweeping moorland to the south.

In respect of the principal visual receptors, east-bound road-users on the A836 will be significantly affected in the section between Strathy and Reay, whilst west-bound road-users will be significantly affected in the section between Hill of Scrabster and Forss and then Reay and Melvich. The A836 extends from John o' Groats to the Dornoch Firth, via Tongue and Lairg. It is only parts of the localised section between Hill of Scrabster and Strathy that will undergo significant effects, whilst the remainder of the much wider route will either undergo not significant effects or not be affected. These effects are summarised in Table 16.15 below.

Whilst significant effects have been identified, these will be relatively localised within the SLVIA Study Area, largely affecting representative viewpoints that currently are influenced by some development characteristics in the form of large-scale energy development and onshore wind farms. The localised nature of these significant effects means that the majority of the visual receptors around the wider SLVIA Study Area will either undergo not significant effects or will not be affected.

Table 16.15 Summary of significance of effects on Representative Viewpoints and Principal Visual Receptors

Viewpoint / Principal Visual Receptors	Sensitivity	Magnitude of Change	Significance of Effect	Rationale
<b>Viewpoints</b>				
Viewpoint 1: Beinn Ratha	Medium-high	Medium-high	Significant (major/moderate)	The Offshore Development will form the defining feature in this view owing to the ready visibility of the seven large WTGs in the open seascape.
Viewpoint 2: Strathy Point Car Park	Medium-high	Medium-high	Significant (major/moderate)	The Offshore Development will form the defining feature in this view owing to the ready visibility of the seven large WTGs in the open seascape.
Viewpoint 3: Portskerra/ Melvich	Medium-high	Medium-high	Significant (major/moderate)	The Offshore Development will form the defining feature in this view owing to the ready visibility of the seven large WTGs in the open seascape.
Viewpoint 4: Drum Hollistan Layby	Medium-high	Medium-high	Significant (major/moderate)	The Offshore Development will form the defining feature in this view owing to the ready visibility of the seven large WTGs in the open seascape.
Viewpoint 5: Sandside Head	Medium	Medium-high	Significant (moderate)	The Offshore Development will form the defining feature in this view owing to the ready visibility of the seven large WTGs in the open seascape.
Viewpoint 6: St. Mary's Chapel, Forss	Medium-high	Medium-low	Not significant (moderate)	The Offshore Development will not form the defining feature in this view, owing to the closer range influence from Forss Wind Farm.
Viewpoint 7: Dunnet Head	Medium-high	Medium-low	Not significant (moderate)	The Offshore Development will not form the defining feature in this view owing to the substantial separation distance from the viewpoint.



Viewpoint / Principal Visual Receptors	Sensitivity	Magnitude of Change	Significance of Effect	Rationale
Viewpoint 8: Scrabster to Stromness Ferry	Medium-high	Medium-low	Not significant (moderate)	The Offshore Development will not form the defining feature in this view owing to the substantial separation distance from the viewpoint.
Viewpoint 9: Path to Old Man of Hoy	High	Low	Not significant (moderate/minor)	The Offshore Development will not form the defining feature in this view owing to the substantial separation distance from the viewpoint.
Viewpoint 10: A836 East of Forss	Medium-high Medium	Medium-low	Not significant (moderate)	The Offshore Development will not form the defining feature in this view owing to the separation distance and the existing human influences on this view.
Viewpoint 11: Ben Griam Beg	Medium-high	Low	Not significant (moderate/minor)	The Offshore Development will not form the defining feature in this view owing to the substantial separation distance from the viewpoint.
Viewpoint 12: Ben Loyal	High	Low	Not significant (moderate/minor)	The Offshore Development will not form the defining feature in this view owing to the substantial separation distance from the viewpoint.
Viewpoint 13: A' Mhoine	High	Low	Not significant (moderate/minor)	The Offshore Development will not form the defining feature in this view owing to the substantial separation distance from the viewpoint and the limited extent to which the Offshore development will be visible.
Viewpoint 14: Ben Dorrery	Medium	Medium-low	Not significant (moderate/minor)	The Offshore Development will not form the defining feature in this view owing to the substantial separation distance from the viewpoint and the closer range influence from operational wind farms.
Viewpoint 15: Ward Hill	Medium-high	Low	Not significant (moderate/minor)	The Offshore Development will not form the defining feature in this view owing to the substantial separation distance from the viewpoint.
Viewpoint 16: Tor Ness	Medium-high	Low	Not significant (moderate/minor)	The Offshore Development will not form the defining feature in this view owing to the substantial separation distance from the viewpoint.
<b>Principal Visual Receptors</b>				
A836 / North Coast 500 / National Cycle Route 1 Eastbound	Medium - high / medium / medium-low	Medium-high / medium Medium-low / low	Significant (major/moderate and moderate) – Strathay to Reay  Not significant (moderate, moderate/minor and minor) – all remaining parts	The Offshore Development will form the defining feature from these eastbound sections of the A836 owing to the ready visibility of the seven large WTGs in the open seascape.  The Offshore Development will not form the defining feature from these sections of the A836 owing to the limited visibility of the Offshore development and / or other closer-range human influences.
A836 / North Coast 500 / National	Medium - high / medium /	Medium-high / medium	Significant (major/moderate and moderate) – Hill of Scrabster	The Offshore Development will form the defining feature from these sections of the A836 owing to the ready visibility of the seven large WTGs in the open seascape.



Viewpoint / Principal Visual Receptors	Sensitivity	Magnitude of Change	Significance of Effect	Rationale
Cycle Route 1  Westbound	medium-low	Medium-low / low	to Forss and Reay to Melvich  Not significant (moderate, moderate/minor and minor) – all remaining parts	The Offshore Development will not form the defining feature from these sections of the A836 owing to the limited visibility of the Offshore development and / or other closer-range human influences.

## 16.8 Assessment of Cumulative Impacts

### 16.8.1 Introduction

Cumulative effects refer to effects upon receptors arising from the Offshore 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'*.

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, in relation to three different cumulative scenarios.

- > **Cumulative Scenario 1** assesses the effects of adding the Offshore Development to a cumulative situation comprising all operational, under construction and consented wind farms and other large-scale energy developments.
- > **Cumulative Scenario 2** assesses the effects of adding the Offshore Development to a cumulative situation comprising all operational, under construction, consented and application wind farms and other large-scale energy developments.
- > **Cumulative Scenario 3** assesses the effects of adding the Offshore Development to a cumulative situation comprising all operational, under construction, consented, application wind farms and other large-scale energy developments, and West Orkney Offshore Wind Farm.

Projects that are at the pre-planning or scoping stage are generally not considered in the assessment of cumulative effects because firm information on which to base the assessment is not available. In response to consultee comments, and although it is not yet at application stage, cumulative Scenario 3 has been included to cover the potential cumulative effects of the future proposed West Orkney Offshore Wind Farm, owing to its potentially large scale and potentially notable effects on coastal, landscape and visual receptors influenced by the North Atlantic seascape.

The consideration of which projects could result in potential cumulative effects is based on the results of the Offshore Development specific impact assessment together with the expert judgement of the specialist consultant and consultation with THC and NatureScot. The Projects that have the potential to give rise to cumulative impacts through the addition of the Offshore Development are presented in Table 16.16 below and their locations shown in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c). MS-LOT have agreed to a 6 month cut-off date prior to submission for the inclusion of new cumulative developments in their email dated 6th December 2021.

Table 16.16 Cumulative Developments relevant to the SLVIA

Project Name / Type	Status	Distance to the Offshore Development (km)	Project Description	Relevance to the cumulative assessment
Scottish and Southern Energy (SSE) Dounreay Substation	Operational	7.4	Onshore substation and associated electricity transmission lines	Close range / high intervisibility with Offshore Development / influence along coastal edge
Forss / Onshore Wind Farm	Operational	9.9	6 WTG @ 78m	Close range / high intervisibility with Offshore Development / strong influence along coastal edge
Baillie Hill / Onshore Wind Farm	Operational	12.4	21 WTG @ 115m	Close range / high intervisibility with Offshore Development / strong influence along coastal edge
Strathy North / Onshore Wind Farm	Operational	17.4	33 WTG @ 110m	Middle range / medium intervisibility with Offshore Development / strong influence in hinterland to SW
Bettyhill / Onshore Wind Farm	Operational	21.1	2 WTG @ 119m	Middle range / limited intervisibility with Offshore Development / influence in more sensitive coastal parts to west
Achlachan / Onshore Wind Farm	Operational	31.1	5 WTG @ 115m	Distant range / limited intervisibility with Offshore Development / strong influence in hinterland to SE
Causeymire / Onshore Wind Farm	Operational	32.4	21 WTG @ 100m	Distant range / limited intervisibility with Offshore Development / strong influence in hinterland to SE
Halsary / Onshore Wind Farm	Operational	33.7	15 WTG @ 120m	Distant range / limited intervisibility with Offshore Development / strong influence in hinterland to SE
Bad a Cheo / Onshore Wind Farm	Operational	33.8	13 WTG @ 112m	Distant range / limited intervisibility with Offshore Development / strong influence in hinterland to SE
Lochend Farm / Onshore Wind Farm	Operational	35.5	4 WTG @ 99.5m	Distant range / limited intervisibility with Offshore Development / strong influence in hinterland to SE
Stroupster / Onshore Wind Farm	Operational	41.1	13 WTG @ 113m	Distant range / limited intervisibility with Offshore Development / strong influence in hinterland to SE

Project Name / Type	Status	Distance to the Offshore Development (km)	Project Description	Relevance to the cumulative assessment
Decommissioning of Dounreay Nuclear Power Facility and Vulcan NRTE	Consented / Ongoing	7.4	Removal of the majority of the built structures and remediation of the land	Close range / high intervisibility with Offshore Development / strong influence on coastal edge
Scottish Hydro Electric Transmission (SHE-T) Onshore Substation	Consented	7.5	Onshore substation and associated electricity transmission lines	Close range / high intervisibility with Offshore Development / influence on coastal edge
Sutherland Space Hub / Satellite Launch Facility	Consented	37.9	Infrastructure for launch of space rockets including launch pad and ancillary buildings	Distant range / limited intervisibility especially as no permanent tall vertical structures / influence on more sensitive landscapes in the west of SLVIA Study Area
Limekiln / Onshore Wind Farm	Consented	13.3	21 WTG @ 139.4 / 125m	Close range / high intervisibility with Offshore Development / strong influence in immediate hinterland to coastal edge
Strathy South Resubmission / Onshore Wind Farm	Consented	23.0	39 WTG @ 200m	Middle range / medium intervisibility with Offshore Development / strong influence in hinterland to SW forming cluster with Strathy North
Strathy Wood / Onshore Wind Farm	Consented	18.9	13 WTG @ 180m	Middle range / medium intervisibility with Offshore Development / strong influence in hinterland to SW forming cluster with Strathy North
Achlachan 2 / Onshore Wind Farm	Consented	31.7	3 WTG @ 110m	Distant range / limited intervisibility with Offshore Development / strong influence in hinterland to SE
Hoy / Onshore Wind Farm	Consented	38.7	6 WTG @ 149.9m	Distant range / limited intervisibility with Offshore Development / influence on sensitive Island of Hoy
Forss III / Onshore Wind Farm	Application	8.3	2 WTG @ 100m	Close range / high intervisibility with Offshore Development / strong influence along coastal edge
Ackron Resubmission / Onshore Wind Farm	Application	10.6	12 WTG @ 149.9m	Close range / high intervisibility with Offshore Development / strong influence in immediate hinterland to coastal edge

Project Name / Type	Status	Distance to the Offshore Development (km)	Project Description	Relevance to the cumulative assessment
Drum Hollistan 2 / Onshore Wind Farm	Application	10.3	7 WTG @ 125m	Close range / high intervisibility with Offshore Development /strong influence in immediate hinterland to coastal edge
Limekiln Resubmission / Onshore Wind Farm	Application	12.3	21 WTG @ 149.9m	Close range / high intervisibility with Offshore Development /strong influence in immediate hinterland to coastal edge
Limekiln Extension / Onshore Wind Farm	Application	13.7	5 WTG @ 149.9m	Close range / high intervisibility with Offshore Development /strong influence in immediate hinterland to coastal edge
Tormsdale / Onshore Wind Farm	Application	31.6	12 WTG @ 149.9m	Distant range / limited intervisibility with Offshore Development / strong influence in hinterland to SE
West Orkney Offshore Wind Farm / Offshore Wind Farm	Future proposed	20.0	Not known	Distant range / High intervisibility with Offshore Development / strong influence across seascape and coastal areas

Cumulative ZTVs that show the visibility of the cumulative project, or group of projects, along with the visibility of the Offshore Development, have been produced for all of the operational, under construction, consented and application wind farms that are considered relevant in the cumulative assessment, as shown in Figures 16.17 to 16.27 (Offshore EIAR [Volume 4]: Appendix 16.9c). These show the extent of visibility of each wind farm in conjunction with the Offshore Development and are referred to in the following detailed assessments.

The cumulative projects are shown in the cumulative wirelines for each of the representative viewpoints, as shown in Figures 16.31 to 16.62 (Offshore EIAR [Volume 4]: Appendix 16.9a and Offshore EIAR [Volume 4]: Appendix 16.9b). In these wirelines, the Offshore Development WTGs are shown in red, operational and under-construction wind farms are shown in black, consented wind farms are shown in green and application wind farms are shown blue. An umbrella bracket has been used to mark out the extent of the proposed West Orkney Offshore Wind Farm. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm is at a very early pre-application stage and, therefore, there is a lack of information regarding the extent or scale of this development. It has been agreed upon with THC and NatureScot that this development be assessed at a high-level in the cumulative assessment of the SLVIA and its inclusion in the cumulative assessment presents a highly precautionary approach. The cumulative assessment for West Orkney Offshore Wind Farm will consider its cumulative effects in conjunction with the Offshore Development.

### 16.8.2 Cumulative Construction and Decommissioning Effects

As described in Section 16.5.2, effects on landscape character and visual amenity will occur as a result of the construction activities, including laying new offshore export cables to shore and the installation of WTGs; using wind farm service vessels. Temporary effects may also arise as a result of the WTG fabrication in the locality of the installation port (to be determined) and temporarily during the tow out from the port facility. Temporary effects resulting from WTG fabrication will be associated with port operations in a location which is likely to have a baseline industrial character, and these effects are not expected to be significant.

The residual effects arising as a result of the construction and decommissioning of the Offshore Development are assessed as being of the same magnitude and significance on all coastal, landscape and visual receptors as those arising due to their operation and maintenance, as assessed in Section 16.7, with the residual effects being short-term and temporary, occurring during the length of the construction and decommissioning phases and differing in nature from the operational effects mainly due to the influence of the various construction vessels in the seascape, including cable laying vessels closer to shore within the Offshore Export Cable Corridor, during the construction and decommissioning phase, that will not be present or result in effects during the operational phase.

In respect of the cumulative assessment, the effects during the construction and decommissioning phases are, therefore, not assessed in detail and for cumulative effects on all coastal, landscape and visual receptors during the construction and decommissioning phases, reference should be made to the detailed assessment during the operational phase for the assessment of significance.

### 16.8.3 Cumulative Operational Effects on Landscape Receptors

This section presents detailed assessments of the cumulative effects of the Offshore Development on landscape character and in respect of the three different cumulative scenarios, where relevant.

#### 16.8.3.1 *Farmed Lowland Plain LCT 143*

##### 16.8.3.1.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCT to be **medium**, the magnitude of change to be medium-low or low and the effect to be not significant. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm and Dounreay Nuclear Power Plant and Vulcan NRTE Decommissioning and Remediation, in respect of Scenario 2, relating to application stage Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission wind farms and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

##### 16.8.3.1.2 Scenario 1 – operational and consented developments

The operational developments with an influence on this LCT include Baillie Hill and Forss wind farms, and the Dounreay Nuclear Power Facility and Vulcan NRTE, which are located in the north-western part of this LCT, and which establish large-scale energy developments as a baseline feature of this landscape. Scenario 1 considers the decommissioning and remediation associated with Dounreay Nuclear Power Facility and Vulcan NRTE, the consented SHE-T Substation and the consented Limekiln Wind Farm which occupies the land to the immediate west of this LCT.

Decommissioning of the Dounreay Nuclear Power Plant and Vulcan NRTE will involve the removal of the majority of the buildings and the remediation of the land. Whilst these changes will make a notable change to the character of this north-western part of the LCT, the retention of some of the buildings, including the operational SSE Substation and the addition of the consented SHE-T Substation, will ensure that the influence from large-scale industrial developments will continue, albeit to a lesser extent. The reduction in development and the remediation of the farmed landscape along this coastal edge will reduce the cumulative influence of Dounreay Nuclear Power Facility and Vulcan NRTE.

The consented Limekiln Wind Farm will comprise 21 WTGs with blade tip heights of 139.4 m and 125 m, set close to the north-western boundary of the Farmed Lowland Plain LCT. Although not located in this LCT it will increase the influence of large-scale energy developments across this north-eastern part owing to its close proximity and the relative openness of the adjacent Farmed Lowland Plain LCT. The cumulative ZTV of the Offshore Development and consented Limekiln Wind Farm is shown in Figure 16.23 (Offshore EIAR [Volume 4]: Appendix 16.9c).

The cumulative magnitude of change will be **medium-low** across the north-eastern part of the LCT and low or no change across remaining parts. The medium part of this rating relates to the fact that the seven offshore WTGs will spread the influence of large-scale energy developments into the open seascape to the north-west. Whilst this will add to the influence from the substations and residual buildings associated with Dounreay Nuclear Power Facility and Vulcan NRTE in this north-western part of the LCT, the low part of the rating relates



to the fact that the offshore WTGs will be located a minimum of approximately 7 km from this LCT, such that the effects will be indirect, compared to the direct and closer range indirect effects that will come from the operational developments within this LCT and, in the case of Limekiln Wind Farm, closely bordering the western boundary of the LCT. Comparisons between these close-range developments and the more distant Offshore Wind Farm will reduce the prominence and influence of the offshore WTGs in this cumulative context.

The combination of the medium sensitivity and the medium-low cumulative magnitude of change will give rise to a cumulative effect that will be **not significant** cumulative effect at a **moderate / minor** level across the north-eastern part of the LCT and **not significant** across all remaining parts.

#### 16.8.3.1.3 Scenario 2 – operational, consented and applications stage projects

In Scenario 2 the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs, and Limekiln Extension will add six further WTGs on the eastern side. Drum Hollistan 2 will be located a minimum of approximately 2 km to the west, with WTGs extending into the northerly sector of the landscape and Ackron Resubmission will be located a minimum of approximately 3 km to the west, both these wind farms partly screened from the north-west part of this LCT by the intervening landform.

The cumulative magnitude of change will be **medium-low** across the north-eastern part of the LCT and low or no change across remaining parts. Limekiln Resubmission and Limekiln Extension will present a broadly similar cumulative influence as the consented Limekiln Wind Farm and the more distant location and partial screening of Drum Hollistan 2 and Ackron Resubmission, will limit their influence on the cumulative situation. Whilst the extent of these onshore wind farms in and around this LCT will increase the perceived importance of the undeveloped northerly aspect, the closer range and stronger influence of the onshore wind farms will by comparison reduce the influence of the Offshore Development.

The combination of the medium sensitivity and the medium-low cumulative magnitude of change will give rise to a cumulative effect that will be **not significant** cumulative effect at a **moderate / minor** level across the north-eastern part of the LCT and **not significant** across all remaining parts.

#### 16.8.3.1.4 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 33 km north-west of the closest coast of the Farmed Lowland Plain LCT.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the Farmed Lowland Plain LCT, albeit at a minimum of approximately 33 km. West Orkney Offshore Wind Farm will change the character of the seascape context in this north-westerly direction from the LCT, such that the Offshore Development will not appear to spread wind farm development into an undeveloped seascape. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. Whilst the WTGs of the Offshore Development may appear larger than the West Orkney Offshore Wind Farm WTGs owing to their closer proximity to the LCT, their perceived scale will also be moderated by their comparison with the closer-range onshore developments which are located in or close to the boundaries of this LCT. In respect of Scenario 3, the cumulative magnitude of change will be **medium-low**.

The combination of the medium sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level.

### 16.8.3.2 Sandy Beaches and Dunes LCT 140

#### 16.8.3.2.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCT to be **medium-high** or **medium**, the magnitude of change to be medium and the effect to be significant. The potential for significant cumulative effects in respect of Scenario 1 and Scenario 2 is limited owing to the separation distance between

the consented and application stage wind farms from the Sandside Bay and Melvich Bay LCUs of these LCTs, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility owing to the predominantly low-lying and enclosed nature of these units, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), and the close association of these LCUs with the seascape to the north, rather than the landscapes in the other directions where most of the cumulative developments are located. There is, however, the potential for cumulative effects to arise in respect of Scenario 3, relating to West Orkney Offshore Wind Farm which is located in the North Atlantic to the north-west of the Sandside Bay and Melvich Bay LCUs.

#### 16.8.3.2.2 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 32 km north-west of the closest coast of the Sandy Beaches and Dunes LCT. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the Sandside Bay and Melvich Bay LCUs, at a minimum distance of approximately 32 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. In respect of the close association that this LCT has with the North Atlantic and the addition of the Offshore Development to an extensive and influential cumulative context in this offshore direction, the cumulative magnitude of change will be **medium**.

The combination of the medium-high or medium sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect, at a **moderate** level on the Sandside Bay and Melvich Bay LCUs of the Sandy Beaches and Dunes LCT.

#### 16.8.3.3 High Cliffs and Sheltered Bays LCT 141

##### 16.8.3.3.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCT to be **medium-high**, the magnitude of change to be medium-high and the effect to be significant. The potential for significant cumulative effects in respect of Scenario 1 and Scenario 2 is limited owing to the separation distance between the consented and application stage wind farms from the LCUs of these LCTs, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), and the close association of this LCT with the seascape to the north rather than the landscapes in the other directions where the cumulative developments are located. There is the potential for cumulative effects to arise in respect of Scenario 3, relating to West Orkney Offshore Wind Farm which is located in the North Atlantic to the north.

##### 16.8.3.3.2 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 28 km north-west of the closest coast of the High Cliffs and Sheltered Bays LCT. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the High Cliffs and Sheltered Bays LCT, at a minimum of approximately 28 km. Whilst the Offshore Development will not be seen to introduce wind farm development

into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. Despite the limited influence of the onshore developments on the LCUs of this LCT, the addition of the Offshore Development in the context of an extensive and influential large-scale development and in the North Atlantic with which this LCT has a close association, will give rise to a **medium** cumulative magnitude of change on those LCUs that lie between Strathy Point and Sandside head and a medium-low or low cumulative magnitude of change or no change on all other LCUs of the High Cliffs and Sheltered Bays LCT.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level on those LCUs that lie between Strathy Point and Sandside head, and a **not significant** cumulative effect on all other LCUs of the High Cliffs and Sheltered Bays LCT.

#### *16.8.3.4 Sweeping Moorland and Flows LCT 134*

##### 16.8.3.4.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCT to be **medium-high**, **medium** or **medium-low**, the magnitude of change to be medium-high, medium, low, and the effect to be significant across the northern parts out to approximately 13 km from the Offshore Development and not significant across the central and southern parts beyond this range. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, in respect of Scenario 2, relating to application stage Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission wind farms and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

##### 16.8.3.4.2 Scenario 1 – operational and consented developments

Strathy North is the only operational wind farm in this LCU of the Sweeping Moorlands LCT, located south of Strathy Forest and a minimum of approximately 10 km south of the northern coastline. Other operational wind farms include Baillie Hill and Forss which are located in the Farmed Lowland Plain LCT to the east and north-east, and which have an influence on the character of the north-east part of the Sweeping Moorland LCT. Scenario 1 also includes consented Limekiln Wind Farm which is located in the north-east part of this LCT and consented Strathy Wood to the south of operational Strathy North, and Strathy South further south than Strathy Wood, also both in this LCT.

The cumulative magnitude of change arising through the addition of the Offshore Development to Scenario 1 will be **medium** in the north-eastern part of the LCT and **medium-low** or **low** in remaining parts. The Offshore Development will introduce wind farm development into the northern sector and into an open seascape, where currently there is no development. The medium cumulative magnitude of change will occur along the northern coast between Melvich and Sandside and extend inland to approximately 13 km. It is in this area that Limekiln Wind Farm will have a strong influence to the south-east and the Offshore Development will have a strong influence to the north. Further to the south, west and east, the influence of the Offshore Development will weaken, and the influence of Limekiln Wind Farm, Strathy North, Strathy Wood and Strathy South will strengthen such that effects will relate more to these developments and not so much to their cumulative interaction with the Offshore Development.

The combination of the medium-high and medium sensitivity with the medium cumulative magnitude of change will give rise to **significant** cumulative effects at a **moderate** level, in the north-eastern part of this LCT out to approximately 13 km from the Offshore Development. The combination of the medium or medium-low sensitivity with the medium-low or low cumulative magnitude of change will give rise to **not significant** cumulative effects at a **minor** level, in all remaining parts of the LCT.

#### 16.8.3.4.3 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs, and Limekiln Extension will add six further WTGs on the eastern side. Drum Hollistan 2 and Ackron Resubmission will be located in the north-eastern part of this LCT, and consented Strathy Wood and Strathy South wind farms will be located to the south of operational Strathy North, also all in this LCT.

The cumulative magnitude of change arising through the addition of the Offshore Development to Scenario 2 will be **medium** in the north-eastern part of the LCT and **medium-low** or **low** in remaining parts. Similar to the assessment under Scenario 1, the northern part of the LCT is most susceptible to cumulative effects, although under Scenario 2 it will be the closer-range Drum Hollistan 2 and Ackron Resubmission that will have a stronger influence than Limekiln Resubmission and Extension, in this northern part. This will reduce the extent of the medium cumulative magnitude of change to approximately 10 km, as beyond this point, the strong influence on landscape character will come from Drum Hollistan 2 and Ackron Resubmission which will be especially close range. The cumulative influence of the Offshore Development will weaken increasingly across the LCT to the south owing to its comparatively distant location and smaller scale relative to the Limekiln Resubmission and Extension, which will have a stronger influence across these parts.

The combination of the medium-high and medium sensitivity with the medium cumulative magnitude of change will give rise to **significant** cumulative effects, at a **moderate** level, in the north-eastern part of this LCT out to approximately 10 km from the Offshore Development. The combination of the medium or medium-low sensitivity with the medium-low or low cumulative magnitude of change will give rise to **not significant** cumulative effects, at a **minor** level, in all remaining parts of the LCT.

#### 16.8.3.4.4 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km north-west of the Offshore Development, and a minimum of approximately 23 km north and north-west of the closest coast of the Sweeping Moorland LCT. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the Sweeping Moorland LCT, at a minimum distance of approximately 23 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and from some parts of the LCT will extend the horizontal extent of offshore WTGs further east. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. In respect of Scenario 3, the cumulative magnitude of change will be **medium** across the northern parts of this LCT between Strathy Point and Sandside Head, where there is a strong association with the North Atlantic and where the Offshore Development will be seen to add a further development against the backdrop of an extensive and large-scale offshore wind farm. The Offshore Development will also be seen against the backdrop of onshore wind farms in the interior of this LCT, comprising Drum Hollistan 2, Ackron Resubmission, Limekiln Resubmission and Extension, Strathy North, Strathy Wood and Strathy South and whilst this means that the medium cumulative magnitude of change will extend inland to approximately 10 km, it would not extend beyond this as these onshore wind farms will present a closer range and stronger influence that will by comparison reduce the influence of the Offshore Development. The cumulative magnitude of change beyond approximately 10 km will reduce to **medium-low**, **low** or **no change**.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a moderate level, from the coast and across an approximate 10 km radius from the Offshore Development. The combination of the medium or medium-low sensitivity with the medium-low or low cumulative magnitude of change will give rise to **not significant** cumulative effects, at a **minor** level, in all remaining parts of the LCT.

### 16.8.3.5 Coastal Crofts and Small Farms LCT 144

#### 16.8.3.5.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCT to be **medium-high**, the magnitude of change to be medium-high and the effect to be significant. The potential for significant cumulative effects in respect of Scenario 1 is limited owing to the separation distance of the consented developments from the LCUs of this LCT, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c) and the limited extent of intervisibility, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c). There is potential for significant cumulative effects in respect of Scenario 2, relating to Ackron Resubmission and Drum Hollistan 2 and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

#### 16.8.3.5.2 Scenario 2 – operational, consented and application stage projects

In Scenario 2 the application stage wind farms of particular relevance to the cumulative assessment include Drum Hollistan 2 and Ackron Resubmission which will be located a minimum of approximately 3 km and 2 km respectively, to the south-east of the Melvich Bay LCU of this LCT.

The cumulative magnitude of change arising through the addition of the Offshore Development to Scenario 2 will be **medium**. The Offshore Development will be added to a cumulative baseline in which onshore wind farm developments present a notable influence on the landscape character of this LCU owing to their close proximity and prominence in the adjacent Sweeping Moorland LCT to the south-east.

The addition of the Offshore Development will extend the influence of wind farm development into an area of open seascape to the north-east, in which seven large WTGs will be seen at a minimum of 8 km. The cumulative magnitude of change is prevented from being rated medium-high by the separation distance between this LCT and the Offshore Development and the small number of WTGs it will comprise, as well as the contained extent of the onshore wind farms in the south-easterly sector with other sectors remaining unaffected.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level.

#### 16.8.3.5.3 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 29 km north-west of the closest coast of the Coastal Crofts and Small Farms LCT. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north of this LCT, at a minimum of approximately 29 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend the horizontal extent of offshore WTGs further east. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. Taking into account the influence of onshore wind farms to the south-west, as well as the extensive offshore wind farm to the north and north-west, the addition of the Offshore Development to Scenario 3 will give rise to a **medium** cumulative magnitude of change.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level.



### 16.8.3.6 Summary of cumulative effects on landscape character

The assessment of cumulative effects on landscape character has identified that significant cumulative effects, will arise as a result of the addition of the Offshore Development to cumulative Scenario 1, across the Sweeping Moorlands LCT out to approximately 13 km. In respect of Scenario 2, cumulative effects will occur across the Sweeping Moorlands LCT out to approximately 10 km. In respect of Scenario 3, cumulative effects on landscape character will be much more widespread, affecting the Sandy Beaches and Dunes LCT, High Cliffs and Sheltered Bays LCT, the Sweeping Moorland LCT and the Coastal Crofts and Small Farms LCT.

Table 16.17 Summary of cumulative effects on landscape character

Receptors	Sensitivity	Scenario 1 Magnitude of change / Significance of effect	Scenario 2 Magnitude of change / Significance of effect	Scenario 3 Magnitude of change / Significance of effect
<b>Landscape Receptors</b>				
Farmed Lowland Plain LCT	Medium	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)
Sandy Beaches and Dune LCT	Medium-high / Medium	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium Significant (moderate)
Cliffs and Sheltered Cliffs and Bay LCT	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium Significant (moderate)
Sweeping Moorland and Flows LCT	Medium-high / Medium / Medium-low	Medium / Medium-low / Low Significant (moderate) out to 13 km Not significant in remaining parts	Medium / Medium-low / Low Significant (moderate) out to 10 km Not significant in remaining parts	Medium Significant (moderate)
Coastal Crofts and Small Farms LCT	Medium-high	Limited potential for significant cumulative effects	Medium Significant (moderate)	Medium Significant (moderate)

## 16.8.4 Cumulative Operational Effects on Coastal Character

This section presents detailed assessments of the cumulative effects of the Offshore Development on coastal character and in respect of the three different cumulative scenarios, where relevant.

### 16.8.4.1 Portskerra RCCA 47, LCCA 47a Crosskirk Bay to White Geos

#### 16.8.4.1.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCCA to be **medium**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for significant cumulative effects to arise in respect of Scenario 1, relating to the consented decommissioning of the Dounreay Nuclear Power Facility and Vulcan NRTE, and the construction of the consented SSE Substation, and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

The potential for significant cumulative effects in respect of Scenario 2 are limited owing to the separation distance of the application stage developments from this LCCA, as shown in the Cumulative Developments

Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), and the closer association of this coastal landscape with the seascape of the North Atlantic, rather than the landscapes where the onshore cumulative developments will be located.

#### 16.8.4.1.2 Scenario 1 – operational and consented projects

Operational Forss Wind Farm is located at the north-eastern end of this LCCA, adjacent to Crosskirk. At the south-western end, the Dounreay Nuclear Power Plant and Vulcan NRTE currently have a notable influence on the character of this adjacent LCCA, owing to the broad extent and large scale of these energy developments and their proximity to this open and exposed coastal edge. Decommissioning of the Dounreay Nuclear Power Plant and Vulcan NRTE will involve the removal of the majority of the buildings and the remediation of the land. Whilst these changes will reduce the influence of large-scale energy developments on the character of the adjacent LCCA, the retention of some of the buildings, including the operational SSE Substation, and the addition of the consented SHE-T Substation will ensure that the influence from large-scale energy developments will continue, albeit to a lesser extent. The reduction in development and the remediation of the farmed landscape along this coastal edge will have the effect of reducing the influence of this area on the cumulative context.

The cumulative magnitude of change will be **medium-low**. The medium part of this rating relates to the fact that the seven offshore WTGs will spread the influence of large-scale energy developments into the open seascape to the north-west. Whilst this will add to the influence from the substations and residual buildings associated with Dounreay Nuclear Power Facility and Vulcan NRTE and on shore wind farms close to this LCCA, the low part of the rating relates to the fact that the offshore WTGs will be located a minimum of approximately 7 km from this LCCA, such that the cumulative influence will be weaker compared to the closer range cumulative influences from the nearby energy developments. Comparisons between these close-range developments and the more distant Offshore Wind Farm will reduce the prominence and influence of the offshore WTGs in this cumulative context.

The combination of the medium sensitivity and the medium-low cumulative magnitude of change will give rise to a cumulative effect that will be **not significant** at a **moderate / minor** level.

#### 16.8.4.1.3 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, at a minimum of approximately 20 km to the north-west of the Offshore Development, and 33 km north-west of the closest coast of LCCA 47a Crosskirk Bay to White Geos. As the detail of West Orkney Offshore Wind Farm is currently unknown, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the Farmed Lowland Plain LCT, albeit at a minimum of approximately 33 km. While the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development will, however, appear larger owing to their closer proximity to the LCCA. In respect of Scenario 3, the cumulative magnitude of change will be medium, owing to the addition of the Offshore Development to an extensive cumulative context that covers both distant seascape, and close-range landscape, surroundings.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of LCCA 47a Crosskirk Bay to White Geos, albeit at a minimum of approximately 33 km. West Orkney Offshore Wind Farm will change the character of the seascape context in this north-westerly direction from the LCT, such that the Offshore Development will not appear to spread wind farm development into an undeveloped seascape. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. Whilst the WTGs of the Offshore Development may appear larger than the West Orkney Offshore Wind Farm WTGs owing to their closer proximity to the LCT, their perceived scale will also be moderated by their comparison with the closer-range onshore developments which are located close to the boundaries of this LCCA. In respect of Scenario 3, the cumulative magnitude of change will be **medium-low**.

The combination of the medium sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level.

#### *16.8.4.2 Portskerra RCCA 47, LCCA 47b White Geos to Sandside Head*

##### 16.8.4.2.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCCA to be **medium**, the magnitude of change to be medium and the effect to be significant. There is the potential for significant cumulative effects to arise in respect of Scenario 1, relating to the consented decommissioning of the Dounreay Nuclear Power Facility and Vulcan NRTE, and the construction of the consented SSE Substation, and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm. The potential for significant cumulative effects in respect of Scenario 2 are limited owing to the separation distance of the application stage developments from this LCCA, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), and the closer association of this coastal landscape with the North Atlantic, rather than the hinterland where the onshore cumulative developments will be located.

##### 16.8.4.2.2 Scenario 1- operational and consented projects

On the eastern side of this LCCA, the Dounreay Nuclear Power Plant and Vulcan NRTE currently have a notable influence on the character of this adjacent LCCA, owing to the broad extent and large scale of these energy developments and their proximity to this open and exposed coastal edge. Decommissioning of the Dounreay Nuclear Power Plant and Vulcan NRTE will involve the removal of the majority of the buildings and the remediation of the land. Whilst these changes will make a notable change to the character of this area and reduce the influence on the character of the adjacent LCCA, the retention of some of the buildings, including the operational SSE Substation and the addition of the consented SHE-T Substation, will ensure that the influence from large-scale energy developments will continue, albeit to a lesser extent. The reduction in development and the remediation of the farmed landscape along this coastal edge will have the effect of reducing the influence of this area on the cumulative context.

The cumulative magnitude of change arising through the addition of the Offshore Development to Scenario 1 will be **medium-low**. The influence from the onshore development on this LCCA will be limited by its relatively low-lying and enclosed location and its strong influence with the North Atlantic to the north rather than the landscapes to the south, taking into account also the reduced influence from the Dounreay Nuclear Power Facility and the Vulcan NRTE. Whilst the addition of the Offshore Development will give rise to significant solus effects. Owing to the weaker cumulative context, the cumulative effects will be moderated.

The combination of the medium sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level.

#### 16.8.4.2.3 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 32 km north-west of the closest coast of the LCCA 47b White Geos to Sandside Head. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the Sandy Beaches and Dunes LCT, at a minimum distance of approximately 32 km. Whilst the Offshore Development will be seen in the same sector as an existing offshore wind farm, it will be seen to draw offshore wind farms closer to the northern coast and would, from some locations, extend the horizontal extent of offshore WTGs further east.

The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development will, however, appear larger owing to their closer proximity to the LCT. They will also be seen in the context of closer-range, large-scale onshore energy developments, including Forss and Baillie Hill wind farms, and the substations and electricity transmission lines to the east, and Limekiln Wind Farm and Extension to the south. Taking these factors into account, the cumulative magnitude of change will be **medium**.

The combination of the medium sensitivity and the medium-low cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level.

#### 16.8.4.3 Portskerra RCCA 47: LCCA 47c Sandside Head to Leac Chailein

##### 16.8.4.3.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCCA to be **medium-high**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for significant cumulative effects to arise in respect of Scenario 2, relating to Drum Hollistan 2 and Ackron Resubmission and Scenario 3, relating to West Orkney Offshore Wind Farm. The potential for significant cumulative effects in respect of Scenario 1 are limited owing to the separation distance of the consented developments from this LCCA, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), and the closer association of this coastal landscape with the North Atlantic rather than the hinterland where the onshore cumulative developments will be located.

##### 16.8.4.3.2 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Drum Hollistan 2 and Ackron Resubmission which will be located in the Sweeping Moorlands LCT to the south of this LCCA at a minimum of 2 to 3 km. The cumulative ZTV in Figure 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that visibility of these application stage wind farms will be almost continuous along the coast, albeit also with small patches of no visibility. Drum Hollistan 2 and Ackron Resubmission will be set behind the intervening landform of the Sweeping Moorlands LCT, such that they will typically be partly screened and seldom seen to their full extent.

The cumulative magnitude of change arising through the addition of the Offshore Development to Scenario 1 will be **medium**. Despite the partial screening of the application stage wind farms and the orientation of this coastal landscape in the opposite direction to their location, their location to the south will mean that this LCCA will be subject to the influence of wind farm development on both key aspects and their close proximity will ensure they have a notable influence on the cumulative situation.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level on this LCCA.

#### 16.8.4.3.3 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, 20 km to the north-west of the Offshore Development, and 32 km north-west of the closest coast of LCCA 46a Holborn Head to Long Rock. As the detail of West Orkney Offshore Wind Farm is currently unknown, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the Sandy Beaches and Dunes LCT, at a minimum distance of approximately 32 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend the horizontal extent of offshore WTGs further east.

The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. In respect of the close association that this LCCA has with the North Atlantic and the addition of the Offshore Development to an extensive and influential cumulative context in this offshore direction, as well as close range wind farms in the opposite onshore direction, the cumulative magnitude of change will be **medium**.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a moderate level on this LCCA.

#### 16.8.4.4 Portskerra RCCA 47: LCCA 47d Leac Chailein to Rubha Bhra

##### 16.8.4.4.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCCA to be **medium-high**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for significant cumulative effects to arise in respect of Scenario 2, relating to Drum Hollistan 2 and Ackron Resubmission, and Scenario 3, relating to West Orkney Offshore Wind Farm. The potential for significant cumulative effects in respect of Scenario 1 are limited owing to the separation distance of the consented and application stage developments from this LCCA, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), and the closer association of this coastal landscape with the North Atlantic, rather than the hinterland where the onshore cumulative developments will be located.

##### 16.8.4.4.2 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Drum Hollistan 2 and Ackron Resubmission which will be located in the Sweeping Moorlands LCT to the south of this LCCA at a minimum of 2 to 3 km. The cumulative ZTV in Figure 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that visibility of these application stage wind farms will be almost continuous along the coast, albeit also with small patches of no visibility. Drum Hollistan 2 and Ackron Resubmission will be set behind the intervening landform of the Sweeping Moorlands LCT, such that they will typically be partly screened and seldom seen to their full extent.

The cumulative magnitude of change arising through the addition of the Offshore Development to Scenario 1 will be medium. Despite the partial screening of the application stage wind farms and the orientation of this coastal landscape in the opposite direction to their location, their location to the south will mean that this LCCA will be subject to the influence of wind farm development on both key aspects and their close proximity will ensure they have a notable influence on the cumulative situation.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a moderate level on this LCCA.



#### 16.8.4.4.3 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most future stage development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 31 km north-west of the closest coast of LCCA 47d Leac Chailein to Rubha Bhra. As the detail of West Orkney Offshore Wind Farm is currently unknown, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of this LCCA, at a minimum distance of approximately 31 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend the horizontal extent of offshore WTGs further east. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. In respect of the close association that this LCCA has with the North Atlantic and the addition of the Offshore Development to an extensive and influential cumulative context in this offshore direction, as well as close range wind farms in the opposite onshore direction, the cumulative magnitude of change will be **medium**.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a moderate level on this LCCA.

#### 16.8.4.5 *Brimms Ness RCCA 46: LCCA 46a Holborn Head to Long Rock*

##### 16.8.4.5.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCCA to be **medium-high**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for significant cumulative effects to arise in respect of Scenario 3, owing to West Orkney Offshore Wind Farm. The potential for significant cumulative effects in respect of Scenario 1 and Scenario 2 are limited owing to the separation distance of the consented and application stage developments from this LCCA, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), and the closer association of this coastal landscape with the North Atlantic rather than the hinterland where the onshore cumulative developments will be located.

##### 16.8.4.5.2 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, 20 km to the north-west of the Offshore Development, and 38 km north-west of the closest coast of LCCA 46a Holborn Head to Long Rock. As the detail of West Orkney Offshore Wind Farm is currently unknown, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of this LCCA, at a minimum distance of approximately 38 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend the horizontal extent of offshore WTGs further to the south-west. The Offshore Development may appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCCA. The cumulative influence of West Orkney Offshore Wind Farm will, however, be notably moderated by its substantial distance from this LCCA and this will reduce the cumulative interaction with the Offshore Development and in turn will give rise to a **medium-low** cumulative magnitude of change.

The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect on this LCCA at a **moderate** level.

#### 16.8.4.6 *RCCA 46 Brimms Ness: LCCA 46b Long Rock to Crosskirk Bay*

##### 16.8.4.6.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCCA to be **medium-high**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for significant cumulative effects to arise in respect of Scenario 3, relating to West Orkney Offshore Wind Farm. The potential for significant cumulative effects in respect of Scenario 1 and Scenario 2 are limited owing to the separation distance of the consented and application stage developments from this LCCA, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), and the closer association of this coastal landscape with the North Atlantic rather than the hinterland where the onshore cumulative developments will be located.

##### 16.8.4.6.2 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 33 km north-west of the closest coast of LCCA 46b Long Rock to Crosskirk Bay. As the detail of West Orkney Offshore Wind Farm is currently unknown, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of this LCCA, at a minimum distance of approximately 38 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend the horizontal extent of offshore WTGs further to the south-west. The Offshore Development may appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development will, however, appear larger owing to their closer proximity to the LCT. The cumulative influence of West Orkney Offshore Wind Farm will, however, be notably moderated by its substantial distance from this LCCA and this will reduce the cumulative interaction with the Offshore Development and in turn will give rise to a **medium-low** cumulative magnitude of change.

The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect on this LCCA at a **moderate** level.

#### 16.8.4.7 *RCCA 45 Dunnet Bay and Thurso Bay: LCCA 45a Donald Gear's Geo to Point Ness*

##### 16.8.4.7.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCCA to be **medium-high**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for significant cumulative effects to arise in respect of Scenario 3, relating to West Orkney Offshore Wind Farm. The potential for significant cumulative effects in respect of Scenario 1 and Scenario 2 are limited owing to the separation distance of the consented and application stage developments from this LCCA, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), and the closer association of this coastal landscape with the North Atlantic rather than the hinterland where the onshore cumulative developments will be located.

##### 16.8.4.7.2 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 44 km north-west of the closest coast of LCCA 45a Donald Gear's Geo to Point Ness. As the detail of West Orkney Offshore Wind Farm is currently unknown, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of this LCCA, at a minimum of approximately 44 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend the horizontal extent of offshore WTGs further to the south-west. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. The cumulative influence of West Orkney Offshore Wind Farm will, be greatly reduced by its substantial distance from this LCCA and this will reduce the cumulative interaction with the Offshore Development and in turn will give rise to a **low** cumulative magnitude of change.

The combination of the medium-high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect on this LCCA at a **moderate / minor** level.

#### *16.8.4.8 RCCA 44 Scarfskerry and Dunnet Head: LCCA 44f Easter Head to Donald Gear's Geo*

##### 16.8.4.8.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCCA to be **medium-high**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for significant cumulative effects to arise in respect of Scenario 3, relating to West Orkney Offshore Wind Farm. The potential for significant cumulative effects in respect of Scenario 1 and Scenario 2 are limited owing to the separation distance of the consented and application stage developments from this LCCA, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), and the closer association of this coastal landscape with the North Atlantic rather than the hinterland where the onshore cumulative developments will be located.

##### 16.8.4.8.2 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 44 km north-west of the closest coast of LCCA 44f Easter Head to Donald Gear's Geo. As the detail of West Orkney Offshore Wind Farm is currently unknown, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of this LCCA, at a minimum of approximately 44 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend the horizontal extent of offshore WTGs further to the south-west to within the area of seascape located between the West Orkney Offshore Wind Farm and the coast. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. The cumulative influence of West Orkney Offshore Wind Farm will, be greatly reduced by its substantial distance from this LCCA and this will reduce the cumulative interaction with the Offshore Development and in turn will give rise to a **medium-low** cumulative magnitude of change.

The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect on this LCCA at a moderate level.

#### *16.8.4.9 Rubha Bhra to Strathly Bay LCCA*

##### 16.8.4.9.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this LCCA to be **medium-high**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for significant cumulative effects to arise in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

The potential for significant cumulative effects in respect of Scenario 1 and Scenario 2 are limited owing to the separation distance of the consented and application stage developments from this LCCA, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the Cumulative ZTVs in Figures 16.17 to 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), and the closer association of this coastal landscape with the North Atlantic rather than the hinterland where the onshore cumulative developments will be located.

#### 16.8.4.9.2 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 27 km north-west of the closest coast of Rubha Bhra to Strathy Bay LCCA. As the detail of West Orkney Offshore Wind Farm is currently unknown, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of this LCCA, at a minimum distance of approximately 31 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend the horizontal extent of offshore WTGs further to the north-east to within the area of seascape located between the West Orkney Offshore Wind Farm and the coast against a backdrop of Orkney. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. In respect of the close association that this LCCA has with the North Atlantic and the addition of the Offshore Development to an extensive and influential cumulative context in this offshore direction, the cumulative magnitude of change will be **medium**.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect on this LCCA at a **moderate** level.

#### 16.8.4.10 Strathy Bay to Strathy Point LCCA

##### 16.8.4.10.1 Potential for cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium-high**, the magnitude of change to be medium-high and the effect to be significant. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, in respect of Scenario 2, relating to application stage Limekiln Resubmission, Drum Hollistan 2 and Ackron Resubmission wind farms, and in respect of Scenario 3, relating to the future West Orkney Offshore Wind Farm.

##### 16.8.4.10.2 Scenario 1 – operational and consented projects

The operational wind farms with an influence on this LCCA include Baillie Hill and Forss both at a minimum of approximately 18 km to the east, which establish wind farm development as a feature of the wider landscape, albeit both appearing small in scale and relatively distant. Scenario 1 also includes consented Limekiln Wind Farm which, at a minimum of 16 km to the south-west and with the WTGs partly concealed behind the intervening landform, also presents a relatively weak influence in the cumulative context.

The cumulative magnitude of change will be **low**. The Offshore Development will introduce wind farm development into the northern sector and into an open seascape, where currently there is no development. The cumulative magnitude of change is prevented from being rated medium-low owing to the limited influence from the other operational and consented wind farms, which, owing to their separation distance from the LCCA and, in the case of Limekiln Wind Farm, its partial screening by intervening landform, means that the Offshore Development will give rise to a solus effect rather than a cumulative effect.

The combination of the medium-high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect on this LCCA at a **moderate / minor** level.

#### 16.8.4.10.3 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs, and Limekiln Extension will add six further WTGs on the eastern side. Drum Hollistan 2 will be located a minimum of 9 km to the south-east, with WTGs partly screened by intervening landform, and Ackron Resubmission will be located a minimum of 8 km to the west and set to the fore of the intervening landform such that almost all WTGs will be seen to their full extent.

The cumulative magnitude of change will be **medium-low**. Limekiln Resubmission and Limekiln Extension will present a broadly similar cumulative influence as the consented Limekiln Wind Farm and Drum Hollistan 2 will add to the density of this cluster. The more notable change will occur in respect of Ackron Resubmission, which will bring onshore wind farms closer to this LCCA, albeit still relatively small in scale and contained in extents. The introduction of the Offshore Development will be seen to extend this influence into the previously undeveloped seascape and although the effects will still mostly be solus, there will also be a slight increase in the cumulative effect.

The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect on this LCCA at a **moderate** level.

#### 16.8.4.10.4 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 23 km to the north-west of the closest coast of the Bay to Strathly Point LCCA. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of this LCCA, at a minimum distance of approximately 23 km, although the orientation of this LCCA to the east and the location of the West Orkney Offshore Wind Farm to the north and north-west means that the association will be reduced by the lack of direct alignment. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend the horizontal extent of offshore WTGs further to the north-east to within the area of seascape located between the West Orkney Offshore Wind Farm and the coast against a backdrop of Orkney. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. In respect of the close association that this LCCA has with the North Atlantic and the addition of the Offshore Development to an extensive and influential cumulative context in this offshore direction, as well as the lesser influence of the close-range wind farms in the opposite onshore direction, the cumulative magnitude of change will be **medium**.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect on this LCCA at a **moderate** level.

#### *16.8.4.11 Summary of cumulative effects on coastal character*

The assessment of cumulative effects on coastal character has identified that significant cumulative effects, will arise as a result of the addition of the Offshore Development to cumulative Scenario 2, across LCCA 47c Sandside Head to Leac Chailein and LCCA 47d Leac Chailein to Rubha Bhra. In respect of Scenario 3, cumulative effects on coastal character will be much more widespread, affecting the LCCAs between White Geos and Strathly Point.



Table 16.18 Summary of cumulative effects on coastal character

Receptors	Sensitivity	Scenario 1 Magnitude of change / Significance of effect	Scenario 2 Magnitude of change / Significance of effect	Scenario 3 Magnitude of change / Significance of effect
<b>Coastal Receptors</b>				
LCCA 47a Crosskirk Bay to White Geos	Medium	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)
LCCA 47b White Geos to Sandside	Medium	Medium-low Not significant (moderate/minor)	Limited potential for significant cumulative effects	Medium Not significant (moderate)
LCCA 47c Sandside Head to Leac Chailein	Medium-high	Limited potential for significant cumulative effects	Medium Significant (moderate)	Medium Significant (moderate)
LCA 47d Leac Chailein to Rhubha Bhra	Medium-high	Limited potential for significant cumulative effects	Medium Significant (moderate)	Medium Significant (moderate)
LCCA 46a Holborn Head to Long Rock	Medium	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium-low Not significant (moderate/minor)
LCCA 46b Long Rock to Crosskirk Bay	Medium	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium-low Not significant (moderate/minor)
LCCA 45a Donald Gear's Geo to Point Ness	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low Not significant(moderate/minor)
LCCA 44f Easter Head to Donald Gear's Geo	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium-low Not significant (moderate/minor)
Rubha Bhra to Strathy Bay	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium Significant (moderate)
Strathy Bay to Strathy Point	Medium-high	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Medium Significant (moderate)

### 16.8.5 Cumulative Operational Effects on Landscape Designations and WLAs

The assessment of the cumulative effects of the Offshore Development on the NSAs and WLAs are presented in the following appendices, which follow the methodology and approach specified for the assessment of NSAs and WLAs set out in NatureScot's 'Draft Guidance for Assessing the Effects on Special Landscape Qualities' (SNH, 2018-2019) and 'Assessing Impacts on Wild Land Areas - Technical Guidance' (NatureScot, 2020);

- > Offshore EIAR (Volume 3): Appendix 16.2: Assessment of Effects on the Special Landscape Qualities of the Kyle of Tongue National Scenic Area;
- > Offshore EIAR (Volume 3): Appendix 16.3: Assessment of Effects on the Special Landscape Qualities of the Hoy and West Mainland National Scenic Area;
- > Offshore EIAR (Volume 3): Appendix 16.4: Assessment of Effects on Wild Land Area 39 East Halladale Flows; and
- > Offshore EIAR (Volume 3): Appendix 16.5: Assessment of Effects on Wild Land Area 41 Hoy.

The assessment of the cumulative effects of the Offshore Development on the regional landscape designations of the Farr Bay, Strathy and Portskerra SLA and the Dunnet Head SLA are presented below.

#### 16.8.5.1 Farr Bay, Strathy and Portskerra SLA

##### 16.8.5.1.1 Potential for cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this SLA to be **medium-high**, the magnitude of change to be medium-high and the effect to be significant. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, in respect of Scenario 2, relating to application stage Limekiln Resubmission, Drum Hollistan 2 and Ackron Resubmission wind farms, and in respect of Scenario 3 relating to future West Orkney Offshore Wind Farm.

##### 16.8.5.1.2 Scenario 1 – operational and consented projects

The operational wind farms with an influence on this LCCA include Baillie Hill and Forss, both at a minimum of approximately 12 km to the south-east and east of the closest SLA boundary. The cumulative ZTVs in Figures 16.17 and 16.18 (Offshore EIAR [Volume 4]: Appendix 16.9c) show that visibility of these wind farms will be patchy in extents across the SLA, with a concentration across the Portskerra headland and Strathy Point, but no or limited visibility around Strathy. Their cumulative influence is moderated by their relatively small-scale and distant location. Scenario 1 also includes consented Limekiln Wind Farm, which is a minimum of 10 km to the south-east of the closest SLA boundary. The cumulative ZTV in Figure 16.23 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows a similar pattern of visibility to that of the operational wind farms, and the influence of this wind farm will also be limited by its separation distance from the SLA and the partial concealment by intervening tracts of sweeping moorland.

The cumulative magnitude of change will be **low**. This assessment relates more to the limited influence of the operational and consented developments, than the influence of the Offshore Development, which in the main assessment is assessed to give rise to a medium-high magnitude of change. The combination of the separation distances of the cumulative developments from the SLA, their relatively small-scale and contained extents and their partial screening from parts of the SLA will limit their influence. It is in respect of this cumulative context that the addition of the Offshore Development will give rise to a limited cumulative magnitude of change.

The combination of the medium-high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect on this SLA at a **moderate / minor** level.

##### 16.8.5.1.3 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs and two fewer WTGs and Limekiln Extension will add six further WTGs on the eastern side. Drum Hollistan 2 will be located a minimum of approximately 3 km to the south-east, and Ackron Resubmission will

be located a minimum of approximately 2 km to the south-east. In Figure 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c), the cumulative ZTVs for these wind farms show that visibility will be concentrated across Portskerra headland and Strathy Point, with patchier visibility across other elevated parts and no or low levels of visibility around Strathy.

Limekiln Resubmission and Limekiln Extension will present a broadly similar cumulative influence as the consented Limekiln Wind Farm, and Drum Hollistan 2 will add to the density of this cluster. The more notable change will occur in respect of Ackron Resubmission, which will bring onshore wind farms closer to this SLA, especially across the close-range south-eastern part of the SLA. The introduction of the Offshore Development will introduce seven WTGs in the open seascape to the north-east of this SLA. In respect of the cluster of onshore wind farms to the south-east, the Offshore Development will be seen to spread the influence of this type of development into the wider context to the SLA and into the previously undeveloped seascape setting. Taking all the factors into account the cumulative magnitude of change will be **medium** across coastal parts between Portskerra and Strathy Point from the coast at 8 km out to a range of 13 km from the Offshore Development. The cumulative magnitude of change across all remaining parts of the SLA will be **medium-low, low or no change**, reflecting the greater separation distance, the limited extents and levels of visibility and the lesser influence of the other cumulative developments.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect on this SLA at a **moderate** level in the localised extent of the coastline between Portskerra and Strathy out to a range of 8 to 13 km, and **not significant** in all remaining parts of the SLA, which make up the majority of the SLA.

#### 16.8.5.1.4 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 23 km to the north-west of the Farr Bay, Strathy and Portskerra SLA. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm will be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north of the SLA, at a minimum distance of approximately 23 km. Whilst the Offshore will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and extend this type of development into the easterly sector. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm, although they may appear larger owing to their closer proximity to the SLA. Taking all the factors into account the cumulative magnitude of change will be **medium** across coastal parts between Portskerra and Strathy Point from the coast at 8 km out to a range of 13 km from the Offshore Development. The cumulative magnitude of change across all remaining parts of the SLA will be **medium-low, low or no change**, reflecting the greater separation distance, the limited extents and levels of visibility and the lesser influence of the other cumulative developments.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect on this SLA at a **moderate** level in the localised extent of the coastline between Portskerra and Strathy out to a range of 8 to 13 km, and **not significant** in all remaining parts of the SLA, which make up the majority of the SLA.

#### 16.8.5.2 Dunnet Head SLA

##### 16.8.5.2.1 Potential for cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this SLA to be **medium-high**, the magnitude of change to be medium-low or low and the effect to be not significant. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, in respect of Scenario 2, relating to application stage Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission wind farms and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

#### 16.8.5.2.2 Scenario 1 – operational and consented projects

The operational wind farms with an influence on this SLA include Baillie Hill and Forss at a minimum of 16 km and 16 km, which establish wind farm development as a feature to the east of this SLA, and Strathy North, at a minimum of approximately 38 km, which forms a more distant feature also in this easterly sector. There is also a cluster of operational wind farms to the south of the SLA at a minimum of approximately 17 km and comprising Achlachan, Bad Cheo, Causeymire and Halsary, and a closer range cluster to the south-east with Lochend Farm at a minimum of approximately 6 km and Stroupster at a minimum of 12 km. These operational wind farms establish wind farm development as a baseline feature across every aspect of Mainland Scotland around this SLA. Scenario 1 also includes consented Limekiln Wind Farm which overlaps with the extents of Baillie Hill Wind Farm to the east of the SLA at a minimum of approximately 22 km.

The cumulative magnitude of change will be **low**. This assessment relates to the combination of the relatively weak influence of the Offshore Development and the relatively weak influence of the operational and consented wind farms, despite their widespread presence across the surrounding landscape. The effects of the Offshore Development on the SLA will be limited by the separation distance of 25 km and the small number of WTGs. The contribution that the operational and consented wind farms make to the cumulative context will be limited by the combination of their distance from this SLA and their comparatively smaller scale. Consented Limekiln Wind Farm will cluster with operational Baillie Hill Wind Farm and Forss Wind Farm will be seen set on the eastern coastline, closer to the Offshore Development. The introduction of the Offshore Development will spread wind farm development into the open seascape to the right of the cumulative wind farms, where currently there is no development.

The combination of the medium-high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect on this SLA at a **moderate / minor** level.

#### 16.8.5.2.3 Scenario 2 – operational, consented and application stage projects

In Scenario 2 the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs, and Limekiln Extension will add six further WTGs on the eastern side. Drum Hollistan 2 will be located a minimum of 32 km to the north-west, with WTGs extending into the northerly sector of the view and Ackron Resubmission will be located a minimum of 34 km to the west, both these wind farms appearing as distant and small-scale features.

The cumulative magnitude of change will be **low**. Limekiln Resubmission and Limekiln Extension will present a broadly similar cumulative influence as the consented Limekiln Wind Farm. The more notable change will occur in respect of Drum Hollistan 2 and Ackron Resubmission, which will be seen to infill the gap between Baillie Hill and Forss wind farms. Whilst this will increase the extent of wind farm development on the Mainland of Scotland, the cumulative relationship between the onshore and offshore WTGs will remain largely the same, with the offshore WTGs having a more notable influence and the cumulative interaction with the smaller scale onshore WTGs moderating the overall cumulative effect.

The combination of the medium-high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect on this SLA at a **moderate / minor** level.

#### 16.8.5.2.4 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 38 km north-west of Dunnet Head SLA. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm will be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the SLA, at a minimum distance of approximately 38 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend the horizontal extent of offshore WTGs further to the south-west to within the area of seascape located between the West Orkney Offshore Wind Farm and the coast.

The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm, although they may appear larger owing to their closer proximity to the SLA. The cumulative effect will, however, be moderated by the substantial separation distances between the SLA and both the Offshore Development and the West Orkney Offshore Wind Farm, which means both will be seen as relatively distant features occupying only a small extent of the wider 360-degree view. The cumulative magnitude of change will be **medium-low**.

The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect on this SLA at a **moderate** level.

#### 16.8.5.3 Summary of cumulative effects on landscape designations and WLAs

In respect of Scenario 2 and Scenario 3, the addition of the Offshore Development will give rise to significant cumulative effects on the Farr Bay, Strathy and Portskerra SLA covering coastal parts out to approximately 13 km, but not on the remaining parts of the SLA. The other landscape designations and mapped interests, including Dunnet Head SLA, Kyle of Tongue NSA, Hoy and West Mainland NSA, East Halladale Flows WLA, and Hoy WLA will not undergo significant cumulative effects in respect of any of the three scenarios.

Table 16.19 Summary of cumulative effects on landscape designations and WLAs

Receptors	Sensitivity	Scenario 1 Magnitude of change / Significance of effect	Scenario 2 Magnitude of change / Significance of effect	Scenario 3 Magnitude of change / Significance of effect
<b>Landscape Designation / WLA Receptors</b>				
Kyle of Tongue NSA	High	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)
Hoy and West Mainland NSA	High	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)
Farr Bay, Strathy and Portskerra SLA	Medium-high	Low Not significant	Medium Significant (moderate) – coastal parts out to approximately 13 km Medium-low / low Not significant (moderate/minor) – all remaining parts	Medium Significant (moderate) – coastal parts out to approximately 13 km Medium-low / low Not significant (moderate/minor) – all remaining parts
Dunnet Head SLA	Medium-high	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)
East Halladale Flows WLA	Medium-high	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)



Receptors	Sensitivity	Scenario 1 Magnitude of change / Significance of effect	Scenario 2 Magnitude of change / Significance of effect	Scenario 3 Magnitude of change / Significance of effect
Hoy WLA	Medium-high	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)

### 16.8.6 Cumulative Operational Effects on Visual Receptors

The assessment of the cumulative effect of the Offshore Development on the representative viewpoints is presented below in respect of the three cumulative scenarios.

#### 16.8.6.1 Viewpoint 1: Beinn Ratha

##### 16.8.6.1.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium-high**, the magnitude of change to be medium and the effect to be significant. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, in respect of Scenario 2, relating to application stage Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission wind farms and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

##### 16.8.6.1.2 Scenario 1 – operational and consented projects

The operational wind farms with an influence on this viewpoint include Baillie Hill and Forss at a minimum of 7.5 km and 10.5 km respectively, which establish wind farm development as a feature within the eastern sector of the view, and Strathy North, at a minimum of 13.7 km, which forms a more distant feature in the western sector. Scenario 1 also includes consented Limekiln Wind Farm which, at a minimum of 1.6 km presents a close-range wind farm with all 21 WTGs seen to their full extents.

The cumulative magnitude of change will be **medium**. The Offshore Development will introduce wind farm development into the northern sector and into an open seascape, where currently there is no development. It will be seen in the context of close-range Limekiln Wind Farm and the other onshore wind farms at Baillie Hill and Forss. The cumulative magnitude of change is prevented from being rated medium-high owing to the scale comparison with the close-range Limekiln WTGs, which will reduce the perceived scale of the offshore WTGs. Furthermore, the influence of the Offshore Development on the cumulative situation will be moderated by the separation distance of 12.5 km and the small number of WTGs and their location in the simple and expansive open seascape. Taking all these factors into consideration, the cumulative magnitude of change will be **medium**.

The combination of the medium-high sensitivity of walkers and the medium cumulative magnitude of change will give rise to **significant** cumulative effect at a **moderate** level.

##### 16.8.6.1.3 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs, and Limekiln Extension will add six further WTGs on the eastern side. Drum Hollistan 2 will be located a minimum of 2.4 km to the north-west, with WTGs extending into the northerly sector of the view and Ackron Resubmission will be located a minimum of 3.8 km to the west, although with both these wind farms partly screened by the intervening landform.

Limekiln Resubmission and Limekiln Extension will present a broadly similar cumulative influence as the consented Limekiln Wind Farm. The more notable change will occur in respect of Drum Hollistan 2 and Ackron Resubmission, which will establish wind farm development as a relatively close-range feature to the west and north-west of the view. Whilst this will increase the perceived importance of the undeveloped northerly aspect,

the Drum Hollistan 2 WTGs will extend into this sector and present a closer range example that will moderate the effects of the offshore WTGs. Taking all these factors into consideration, the cumulative magnitude of change will be **medium-low**.

The combination of the medium-high sensitivity of walkers and the medium-low cumulative magnitude of change will give rise to **not significant** cumulative effect at a **moderate** level.

#### 16.8.6.1.4 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, at a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 36.9 km north-west of the viewpoint at Beinn Ratha. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm will be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north and north-west of this viewpoint, although at a minimum of approximately 37 km, it will appear as a distant feature. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend slightly the horizontal extent of offshore WTGs further to the north-east. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. Whilst the very distant location of West Orkney Offshore Wind Farm will limit the cumulative interaction with the Offshore Development, the cumulative magnitude of change will nonetheless be **medium**, albeit relating more closely to the cumulative interactions with the Scenario 1 and Scenario 2 onshore wind farms than the Scenario 3 offshore wind farm.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level on this viewpoint.

#### 16.8.6.2 Viewpoint 2: Strathy Point Car Park

##### 16.8.6.2.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium-high**, the magnitude of change to be medium-high and the effect to be significant. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, in respect of Scenario 2, relating to application stage Limekiln Resubmission, Drum Hollistan 2 and Ackron Resubmission wind farms, and in respect of Scenario 3, relating to future West Orkney Offshore Wind Farm.

##### 16.8.6.2.2 Scenario 1 – operational and consented projects

The operational wind farms with an influence on this viewpoint include Baillie Hill and Forss at a minimum of 19.4 km and 19.0 km respectively, which establish wind farm development as a feature within the eastern sector of the view. Scenario 1 also includes consented Limekiln Wind Farm which, at a minimum of 16 km and with the WTGs partly concealed behind the intervening landform presents a relatively weak influence in the cumulative context.

The cumulative magnitude of change will be **low**. The Offshore Development will introduce wind farm development into the northern sector and into an open seascape, where currently there is no development. The cumulative magnitude of change is prevented from being rated medium-low owing to the limited influence from the other operational and consented wind farms, which owing to their separation distance from the viewpoint and, in the case of Limekiln Wind Farm, its partial screening by intervening landform, means that the Offshore Development will give rise to solus effects rather than cumulative effects.

The combination of the medium-high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level on this viewpoint.

#### 16.8.6.2.3 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs, and Limekiln Extension will add six further WTGs on the eastern side. Drum Hollistan 2 will be located a minimum of 11.5 km to the south-east, with WTGs partly screened by intervening landform, and Ackron Resubmission will be located a minimum of 9.9 km to the west and set to the fore of the intervening landform, such that almost all WTGs will be seen to their full extents.

The cumulative magnitude of change will be **medium-low**. Limekiln Resubmission and Limekiln Extension will present a broadly similar cumulative influence as the consented Limekiln Wind Farm and Drum Hollistan 2 will add to the density of this cluster. The more notable change will occur in respect of Ackron Resubmission, which will bring onshore wind farms closer to this viewpoint, albeit still relatively small in scale and contained in extents. The addition of the Offshore Development will extend the influence of wind farm development into an area of open seascape to the north-east, in which tall WTGs will be seen at a minimum of 9.2 km. The cumulative magnitude of change is prevented from being rated medium by the separation distance between this LCT and the Offshore Development and the small number of WTGs it will comprise, as well as the contained extent of the onshore wind farms in the south-easterly sector with other sectors remaining unaffected.

The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate** level on this viewpoint.

#### 16.8.6.2.4 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, at a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 28 km to the north-west of the viewpoint at Strathy Point. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm will be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north of the viewpoint, at a minimum distance of approximately 23 km. Whilst the Offshore will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and extend this type of development into the easterly sector. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm, although they may appear larger owing to their closer location to the viewpoint. The addition of the Offshore Development will give rise to a **medium** cumulative magnitude of change and a **significant** effect.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level on this viewpoint.

#### 16.8.6.3 Viewpoint 3: Portskerra/Melvich

##### 16.8.6.3.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium-high**, the magnitude of change to be medium-high and the effect to be significant. There is the potential for cumulative effects to arise in respect of Scenario 2, relating to application stage Drum Hollistan 2 and Ackron Resubmission wind farms, and in respect of Scenario 3, relating to the future West Orkney Offshore Wind Farm. The potential for significant cumulative effects in respect of Scenario 1 are limited owing to the separation distance of the consented developments from this viewpoint, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the cumulative wireline in Figures 16.33b and 16.33c (Offshore EIAR [Volume 4]: Appendix 16.9a), and the closer association of this coastal viewpoint with the North Atlantic rather than the hinterland where the onshore cumulative developments will be located.

#### 16.8.6.3.2 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Drum Hollistan 2 and Ackron Resubmission. Drum Hollistan 2 will be located a minimum of 5.4 km to the south-east, with WTGs partly screened by intervening landform, and Ackron Resubmission will be located a minimum of 3.7 km to the west and set to the fore of the intervening landform such that almost all WTGs will be seen to their full extent. Whilst the wireline in Figure 16.33c (Offshore EIAR [Volume 4]: Appendix 16.9a) shows operational Baillie Hill Wind Farm to be visible as tips at a minimum distance of 14.2 km, from this viewpoint these tips are not readily discernible.

The cumulative magnitude of change will be **medium**. The most notable change will occur in respect of Ackron Resubmission, which will establish onshore wind farm development as a notable feature in the south-east of the view. All 11 WTGs will be visible and seen set across the sweeping moorland that forms the landscape setting to the settlement of Melvich. The addition of the Offshore Development will extend the influence of wind farm development into an area of open seascape to the north-east, in which seven large WTGs will be seen at a minimum of 9.3 km. The cumulative magnitude of change is prevented from being rated medium-high by the separation distance between this LCT and the Offshore Development and the small number of WTGs it will comprise, as well as the contained extent of the onshore wind farms in the south-easterly sector with other sectors remaining unaffected.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level on this viewpoint.

#### 16.8.6.3.3 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, at a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of 29.6 km to the north-west of the viewpoint at Portskerra / Melvich. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm will be mostly screened by the close-range landform that encloses the western side of Melvich Bay, such that only the eastern part of the proposed PFOWF Array Area will be visible at a minimum of 29.6 km. The Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, but it will be seen to draw offshore wind farms closer to the northern coast and be seen to its full extents and occupying a substantial part of the visible seascape horizon. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm, although they may appear larger owing to their closer location to the viewpoint. They will also be seen to increase the spread and influence of wind farm development relative to the onshore cluster comprising Ackron Resubmission and Drum Hollistan 2. The addition of the Offshore Development will give rise to a **medium** cumulative magnitude of change.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level on this viewpoint.

#### 16.8.6.4 Viewpoint 4: Drum Holliston Car Park

##### 16.8.6.4.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium-high**, the magnitude of change to be medium and the effect to be significant. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, in respect of Scenario 2, relating to application stage Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission wind farms. The potential for significant cumulative effects in respect of Scenario 3 are limited owing to the extent to which West Orkney Offshore Wind Farm will be screened by the intervening landform of the coastal sweeping moorland.

#### 16.8.6.4.2 Scenario 1 – operational and consented projects

The operational wind farms with an influence on this viewpoint include Baillie Hill and Forss at a minimum of 8.7 km and 9.9 km respectively, which establish wind farm development as a feature within the eastern sector of the view. Scenario 1 also includes consented Limekiln Wind Farm which, at a minimum of 4.9 km presents a closer range wind farm with almost all the WTGs visible to their full extents.

The cumulative magnitude of change will be **medium**. The Offshore Development will introduce wind farm development into the northern sector and into an open seascape, where currently there is no development. The offshore WTGs will appear larger than the operational onshore WTGs, despite their similar separation distances and larger than the consented onshore WTGs, despite their closer proximity to the viewpoint. The cumulative magnitude of change is prevented from being rated medium-high owing to the moderate influence of the onshore wind farms which results from their separation distances from the viewpoint, their relatively contained extents and the extent of undeveloped landscape which separates them. The cumulative influence of the Offshore Development is also moderated by its separation distance of 9.3 km, the small number of WTGs and their location in the simple and expansive open seascape.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level on this viewpoint.

#### 16.8.6.4.3 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs, and Limekiln Extension will add six further WTGs on the eastern side. Drum Hollistan 2 will be located a minimum of 1.0 km to the south-east and south, with all seven WTGs appearing as prominent, close-range structures. Ackron Resubmission will be located a minimum of 2.1 km to the west, although screened by the intervening landform such that only one blade will be visible.

The cumulative magnitude of change will be **medium**. Limekiln Resubmission and Limekiln Extension will present a broadly similar cumulative influence as the consented Limekiln Wind Farm. The more notable change will occur in respect of Drum Hollistan 2, which will establish wind farm development as a relatively close-range feature in the view. This will increase the extent of wind farm development to the south-east and south and, in so doing, will emphasise the contrast that the undeveloped northerly aspect presents. The cumulative magnitude of change will, however, be moderated to some extent by the scale comparison that these closer range WTGs will present, with the effect of reducing the perceived scale of the offshore WTGs.

The combination of the medium-high sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level on this viewpoint.

### 16.8.6.5 Viewpoint 5: Sandside Headland

#### 16.8.6.5.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium**, the magnitude of change to be medium and the effect to be significant. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, in respect of Scenario 2, relating to application stage Limekiln Resubmission and Limekiln Extension, and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

#### 16.8.6.5.2 Scenario 1 – operational and consented projects

The operational wind farms with an influence on this viewpoint include Baillie Hill and Forss at a minimum of 6.3 km and 7.0 km respectively, which establish wind farm development as a feature within the eastern sector of the view. Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Substation and associated electricity transmission lines are also readily visible in this view, seen set on the opposite coast across Sandside Bay. Scenario 1 also includes consented Limekiln Wind Farm which, at a minimum of 5.1 km presents a closer range wind farm with all 21 WTGs seen to their full extents.



The Offshore Development will introduce wind farm development into the northern sector and into an open seascape, where currently there is no development. It will be seen in the context of the coastal wind farms to the east, at Baillie Hill and Forss, and the inland wind farm at Limekiln to the south. Whilst onshore energy developments are visible in the sectors to the east and south, the Offshore Development will draw this type of Development into the sector to the north. The cumulative magnitude of change will, however, be moderated by the separation distance between the viewpoint and the Offshore Development and the relatively contained nature of the onshore developments. Taking all these factors into consideration, the cumulative magnitude of change will be **medium**.

The combination of the medium sensitivity of walkers and the medium cumulative magnitude of change will give rise to **significant** cumulative effect at a **moderate** level.

#### 16.8.6.5.3 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission and Limekiln Extension. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs, and Limekiln Extension will add six further WTGs on the eastern side, albeit partly screened by intervening landform, such that only blades and tips will be visible.

Limekiln Resubmission and Limekiln Extension will present a broadly similar cumulative influence as the consented Limekiln Wind Farm and, therefore, the assessment of cumulative effects presented under Scenario 1 also applies to Scenario 2.

The combination of the medium sensitivity of walkers and the medium-low cumulative magnitude of change will give rise to **not significant** cumulative effect at a **moderate / minor** level.

#### 16.8.6.5.4 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, at a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 32.7 km north-west of the viewpoint at Sandside Head. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm will be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north of this viewpoint, although at a minimum of approximately 32.7 km, it will appear as a distant feature. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend slightly the horizontal extent of offshore WTGs further to the east. The Offshore Development will appear considerably smaller in terms of the number of WTGs, with only seven compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The WTGs of the Offshore Development may, however, appear larger owing to their closer proximity to the LCT. Whilst the very distant location of West Orkney Offshore Wind Farm will limit the cumulative interaction with the Offshore Development, the cumulative magnitude of change will nonetheless be **medium**, albeit relating more closely to the cumulative interactions with the Scenario 1 and Scenario 2 onshore wind farms than the Scenario 3 offshore wind farm.

The combination of the medium sensitivity and the medium cumulative magnitude of change will give rise to a **significant** cumulative effect at a **moderate** level on this viewpoint.

#### 16.8.6.6 Viewpoint 6: St Mary's Chapel, Forss

##### 16.8.6.6.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium-high**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for cumulative effects to arise in respect of Scenario 2, relating to application stage Forss III Wind Farm, and in respect of Scenario 3, relating to future West Orkney Offshore Wind Farm. The potential for significant cumulative effects in respect of Scenario 1 are limited owing to the separation distance of the consented

developments from this viewpoint, as shown in the Cumulative Developments Plan in Figure 16.16 (Offshore EIAR [Volume 4]: Appendix 16.9c), the limited extent of intervisibility, as shown in the cumulative wireline in Figures 16.36b and 16.36c (Offshore EIAR [Volume 4]: Appendix 16.9a), and the closer association of this coastal viewpoint with the North Atlantic rather than the hinterland where the onshore cumulative developments will be located.

#### 16.8.6.6.2 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farm of particular relevance to the cumulative assessment is Forss III Wind Farm, which will be located a minimum of 370 m to the south-west and set adjacent to the six operational WTGs of Forss Wind Farm at a minimum of 340 m.

The cumulative magnitude of change will be **medium-low**. The cumulative context will comprise the six WTGs of Forss Wind Farm and the additional two WTGs of Forss III. Together, these will form a notable close-range influence on visitors to this viewpoint. The Offshore Development will spread wind farm development into the previously undeveloped seascape and whilst this will add to the cumulative magnitude of change, the effect will be moderated by the scale comparison with the onshore WTGs which will reduce the perceived scale of the offshore WTGs. Furthermore, the Offshore Development will comprise only seven WTGs, occupying only a small extent of the wider view and seen set in the simple and expansive context of the North Atlantic at a minimum of 8.2 km.

The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate** level on this viewpoint.

#### 16.8.6.6.3 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, at a minimum of approximately 20 km to the north-west of the Offshore Development, and at a minimum of approximately 33.3 km to the north-west of the viewpoint at St Mary's Chapel. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm will be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the viewpoint, at a minimum distance of approximately 33.3 km. Whilst the Offshore Development will not introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast, albeit set to the fore and within the wider extent of West Orkney Offshore Wind Farm. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm, although they may appear larger owing to their closer location to the viewpoint. The influence of the Offshore Development will, however, continue to be moderated by the stronger influence of close-range Forss and Forss III.

The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate** level on this viewpoint.

### 16.8.6.7 Viewpoint 7: Dunnet Head

#### 16.8.6.7.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium-high**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, in respect of Scenario 2, relating to application stage Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission wind farms and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

#### 16.8.6.7.2 Scenario 1 – operational and consented projects

The operational wind farms with an influence on this viewpoint include Baillie Hill and Forss at a minimum of 20.2 km and 19.5 km respectively, which establish wind farm development as a distant and small-scale feature within the eastern sector of the view. There is also a cluster of operational wind farms to the south of the

viewpoint at a minimum of 24.9 km and comprising Achlachan, Bad Cheo, Causeymire and Halsary, and to the south-east at a minimum of 10.3 km and comprising Stroupster and Lochend Farm. These operational wind farms establish wind farm development as a baseline feature in views across every aspect of Mainland Scotland. Scenario 1 also includes consented Limekiln Wind Farm which, which overlaps with Baillie Hill Wind Farm in the eastern sector of the view, at a minimum of 26.2 km.

The cumulative magnitude of change will be **low**. The effects experienced from this viewpoint relate principally to the Offshore Development, albeit limited by the separation distance of 25.5 km and the small number of WTGs. The contribution that the operational and consented wind farms make to the cumulative context will be limited by the combination of their distance from this viewpoint and their comparatively smaller scale. Consented Limekiln Wind Farm will cluster with operational Baillie Hill Wind Farm, and Forss Wind Farm will be seen set on the eastern coastline, closer to the Offshore Development. The introduction of the Offshore Development will spread wind farm development into the open seascape to the right of the cumulative wind farms, where currently there is no development. The cumulative magnitude of change is prevented from being rated medium-low owing to the limited influence that the other onshore WTGs will have on this view.

The combination of the medium-high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level on this viewpoint.

#### 16.8.6.7.3 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs, and Limekiln Extension will add six further WTGs on the eastern side. Drum Hollistan 2 will be located a minimum of 29.8 km to the north-west, with WTGs extending into the northerly sector of the view and Ackron Resubmission will be located a minimum of 31.6 km to the west, both these wind farms partly screened by the intervening landform.

The cumulative magnitude of change will be **low**. Limekiln Resubmission and Limekiln Extension will present a broadly similar cumulative influence as the consented Limekiln Wind Farm. The more notable change will occur in respect of Drum Hollistan 2 and Ackron Resubmission, which will be seen to infill the gap between Baillie Hill and Forss wind farms. Whilst this will increase the extent of wind farm development on the Mainland of Scotland, the cumulative relationship between the onshore and offshore WTGs will remain largely the same, with the offshore WTGs having a more notable influence and the cumulative interaction with the smaller scale onshore WTGs moderating the overall cumulative effect.

The combination of the medium-high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level on this viewpoint.

#### 16.8.6.7.4 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and 39.2 km north-west of the viewpoint at Dunnet Head. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm will be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the viewpoint, at a minimum distance of approximately 39.2 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast and will extend the horizontal extent of offshore WTGs further to the south-west. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm, although they may appear larger owing to their closer proximity to the viewpoint. The cumulative effect will, however, be moderated by the substantial separation distances between this viewpoint and both the Offshore Development and the West Orkney Offshore Wind Farm, which means both will be seen as relatively distant features occupying only a small extent of the wider 360-degree view. The cumulative magnitude of change will be **medium-low**.

The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate** level on this viewpoint.

#### *16.8.6.8 Viewpoint 8: Scrabster – Stromness Ferry*

##### 16.8.6.8.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium-high**, the magnitude of change to be medium-low and the effect to be not significant. The potential for significant cumulative effects to arise in respect of Scenario 1 and Scenario 2 will be limited owing to the distant location and weak cumulative influence of the consented and application stage developments. There is, however, the potential for a significant cumulative effect to arise in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

##### 16.8.6.8.2 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, 20 km to the north-west of the Offshore Development and 23.9 km west of the viewpoint on the Scrabster to Stromness ferry. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the west of the viewpoint, at a minimum of 23.9 km. The Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, and whilst it will be seen to draw offshore wind farms closer to the northern coast of the Mainland of Scotland, at a minimum of 27.8 km it will be located further away from this viewpoint than West Orkney Offshore Wind Farm. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The cumulative effect will, however, be moderated by the substantial separation distances between this viewpoint and both the Offshore Development and the West Orkney Offshore Wind Farm, which means both will be seen as relatively distant features occupying only a small extent of the wider 360-degree view. The cumulative magnitude of change will be **low**.

The combination of the medium-high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level on this viewpoint.

#### *16.8.6.9 Viewpoint 9: Old Man of Hoy*

##### 16.8.6.9.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **high**, the magnitude of change to be low and the effect to be not significant. The potential for significant cumulative effects to arise in respect of Scenario 1 and Scenario 2 will be limited owing to the distant location and weak cumulative influence of the consented and application stage developments. Whilst consented Hoy Wind Farm is located only 11.6 km from this viewpoint it will not be visible owing to the screening effect of the intervening hills. There is, however, the potential for a significant cumulative effect to arise in respect of Scenario 3, relating to West Orkney Offshore Wind Farm. The cumulative wirelines for this viewpoint are shown in Figure 16.39 (Offshore EIAR [Volume 4]: Appendix 16.9a).

##### 16.8.6.9.2 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development and a minimum of 28.5 km west of the viewpoint on the path to the Old Man of Hoy. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the west of the viewpoint, at a minimum distance of approximately 28.5 km.

The Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, and whilst it will be seen to draw offshore wind farms closer to the northern coast of the Mainland of Scotland, at a minimum of 34.5 km it will be further from this viewpoint on Hoy. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The cumulative effect will, however, be moderated by the substantial separation distances between this viewpoint and both the Offshore Development and the West Orkney Offshore Wind Farm, which means both will be seen as relatively distant features occupying only a small extent of the wider 360-degree view. The cumulative magnitude of change will be **low**.

The combination of the high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level on this viewpoint.

#### *16.8.6.10 Viewpoint 10: A836 East of Forss*

##### 16.8.6.10.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, in respect of Scenario 2, relating to application stage Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2, Ackron Resubmission and Forss III wind farms and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

##### 16.8.6.10.2 Scenario 1 – operational and consented projects

The operational wind farms with an influence on this viewpoint include Baillie Hill and Forss at a minimum of 4.0 km and 3.4 km, which establish wind farm development as a feature within the south-eastern and eastern sector of the view. Scenario 1 also includes consented Limekiln Wind Farm at a minimum of 10.3 km to the south-east and set to the rear of operational Baillie Hill Wind Farm.

The cumulative magnitude of change will be **medium-low**. The medium part of the rating relates to the fact that the Offshore Development will be seen to spread the influence of wind farm development into the seascape, off the northern coastal edge. The low part of rating relates to the fact that the Offshore Development will be seen in a sector of the view where wind farm development already has an influence and will be located close to the developed northern coast, such that the wider seascape and undeveloped landscape would remain unaffected. The Offshore Development will be seen to the immediate right of Forss Wind Farm, but despite comprising larger WTGs, they will be seen comparable in scale to the smaller Forss WTGs owing to their closer proximity to the viewpoint and this effect will moderate the effect of the offshore WTGs.

The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate** level on this viewpoint.

##### 16.8.6.10.3 Scenario 2 – operational, consented and application stage projects

In Scenario 2, the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2, Ackron Resubmission and Forss III. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs and two fewer WTGs, and Limekiln Extension will add six further WTGs on the eastern side. Drum Hollistan 2 and Ackron Resubmission will be located a minimum of 13.3 km and 15.1 km to the east, although screened by the intervening landform such that the WTGs will not be seen to their full extent.

Limekiln Resubmission and Limekiln Extension will present a broadly similar cumulative influence as the consented Limekiln Wind Farm, which will be limited by their location to the rear of Baillie Hill Wind Farm. Drum Hollistan 2 and Ackron Resubmission will be more readily visible and seen to extend wind farm development towards the coastal edge. The main cumulative interaction will, however, be between Forss and Forss III wind farms and the Offshore Development. Whilst Forss III will add two additional WTGs to Forss Wind Farm, the cumulative assessment presented under Scenario 1 will also largely apply to Scenario 2 and the cumulative magnitude of change will be **medium-low**.



The combination of the medium-high sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate** level on this viewpoint.

#### 16.8.6.10.4 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 35.4 km to the north-west of the viewpoint on the A836 east of Forss. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm will be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the viewpoint, at a minimum of approximately 35.4 km. Whilst the Offshore Development will not introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast, albeit set to the fore and within the wider extent of West Orkney Offshore Wind Farm. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm, although they may appear larger owing to their closer location to the viewpoint. The influence of the Offshore Development will, however, continue to be moderated by the stronger influence of close-range Forss and Forss III. Taking all these factors into account, the addition of the Offshore Development will give rise to a **medium-low** cumulative magnitude of change.

The combination of the medium-high or medium sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate** level on this viewpoint.

#### 16.8.6.11 Viewpoint 11: Ben Griam Beg

##### 16.8.6.11.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium-high**, the magnitude of change to be low and the effect to be not significant. The potential for significant cumulative effects to arise in respect of Scenario 1, Scenario 2 and Scenario 3 will be limited owing to the distant location and weak cumulative influence of the Offshore Development which means it will not give rise to a significant cumulative effect on the views of walkers on this summit or in this area.

#### 16.8.6.12 Viewpoint 12: Ben Loyal

##### 16.8.6.12.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be high, the magnitude of change to be low and the effect to be not significant. The potential for significant cumulative effects to arise in respect of Scenario 1, Scenario 2 and Scenario 3 will be limited owing to the distant location and weak cumulative influence of the Offshore Development which means it will not give rise to a significant cumulative effect on the views of walkers on this summit or on this area.

#### 16.8.6.13 Viewpoint 13: A' Mhoine

##### 16.8.6.13.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium-high**, the magnitude of change to be low and the effect to be not significant. There is no potential for significant cumulative effects to arise in respect of Scenario 1 and Scenario 2 as there will be no visibility of consented and application stage developments. There is, however, the potential for a significant cumulative effect to arise in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

#### 16.8.6.13.2 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, 20 km to the north-west of the Offshore Development and 33.5 km north of the viewpoint on A' Mhoine. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm will be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north of the viewpoint, at a minimum distance of approximately 33.5 km. The Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, nor will it be seen to draw offshore wind farms notably closer to the Kyle of Tongue, although it will be located at the slightly closer range of 27.8 km. Whilst West Orkney Offshore Wind Farm will be located in the open seascape to the north, the Offshore Development will be located behind the intervening islands to the north-east. Whilst the fact that the seven WTGs will be partly screened by these islands might lower their cumulative influence, the fact that they are associated with these landmark features counters any potential moderation. It is therefore, more the fact that both offshore wind farms will be distant from this viewpoint and that the Offshore Development will be added to a sector of the view where West Orkney Offshore Wind Farm already has a notable influence, that ensures the cumulative magnitude of change will be **low**.

The combination of the high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level on this viewpoint.

#### *16.8.6.14 Viewpoint 14: Ben Dorrery*

##### 16.8.6.14.1 Potential for cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium**, the magnitude of change to be medium-low and the effect to be not significant. There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, in respect of Scenario 2, relating to application stage Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission wind farms and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

##### 16.8.6.14.2 Scenario 1 – operational and consented projects

The operational wind farms with an influence on this viewpoint include Baillie Hill and Forss at a minimum of 10.1 km and 15.0 km respectively, which establish wind farm development as a feature within the northerly sector of the view, and Achlachan, Camster, Causeymire and Halsary, at a minimum of 9.0 km, which forms a more distant and denser cluster in the south-western sector. Scenario 1 also includes consented Limekiln Wind Farm which, at a minimum of 8.6 km to the north-west, extends the influence of wind farm across this northerly sector.

The cumulative magnitude of change will be **medium-low**. The Offshore Development will occupy the central space in the northerly sector, set between Limekiln Wind Farm to the left and Baillie Hill Wind Farm to the right. This means it will not be seen to increase the spread of wind farm development into new sectors, although it will be seen to partly infill the gap between the cumulative developments and spread wind farm development into the seascape, albeit seen to be close to shore. Furthermore, the influence of the Offshore Development on the cumulative situation will be moderated by the separation distance of 21.8 km and the small number of WTGs and their location in the simple and expansive open seascape.

The combination of the medium sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level on this viewpoint.

##### 16.8.6.14.3 Scenario 2 – operational, consented and application stage projects

In Scenario 2 the application stage wind farms of particular relevance to the cumulative assessment include Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2 and Ackron Resubmission. Limekiln Resubmission will essentially replicate the layout of the consented Limekiln Wind Farm, albeit with slightly taller WTGs and two fewer WTGs and Limekiln Extension will add six further WTGs on the eastern side. Drum Hollistan 2 will be located a minimum of 14.8 km to the north-west, and Ackron Resubmission will be located a minimum of 16.1 km to the west, the additional cumulative influence of both these wind farms limited by their location behind Limekiln Resubmission and Extension and partly screened by the intervening landform.

The cumulative magnitude of change will be **medium-low**. Limekiln Resubmission and Limekiln Extension will present a broadly similar cumulative influence as the consented Limekiln Wind Farm and the additional influence from Drum Hollistan 2 and Ackron Resubmission, will be limited. The cumulative context will be largely the same as that assessed under Scenario 1 and, therefore, the assessment will remain unchanged, and the effect will be **not significant** at a **moderate / minor** level on this viewpoint.

#### 16.8.6.14.4 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development, and a minimum of approximately 47.7 km north-west of the viewpoint at Ben Dorrery. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm will be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the north-west of the viewpoint, at a minimum distance of approximately 47.7 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast, albeit still at a minimum of 21.8 km. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm, although they will appear larger owing to their closer location to the viewpoint. The addition of the Offshore Development will give rise to a **medium-low** cumulative magnitude of change.

The combination of the medium sensitivity and the medium-low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level on this viewpoint.

#### 16.8.6.15 Viewpoint 15: Ward Hill

##### 16.8.6.15.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **high**, the magnitude of change to be low and the effect to be not significant. The potential for significant cumulative effects to arise in respect of Scenario 2 will be limited owing to the distant location and weak cumulative influence of the application stage developments. There is the potential for cumulative effects to arise in respect of Scenario 1, owing to consented Hoy Wind Farm and in respect of Scenario 3, owing to West Orkney Offshore Wind Farm.

##### 16.8.6.15.2 Scenario 1 – operational and consented projects

The operational wind farms with an influence on this hilltop are mostly located on the Mainland of Scotland, albeit with their influence moderated by their separation distance and their relatively small scale. Scenario 1 also includes consented Hoy Wind Farm which, at a minimum of 9.7 km to the south, draws the influence of wind farm development onto the Island of Hoy. Hoy Wind Farm comprises six WTGs each 149.9 m to blade tip. The cumulative magnitude of change will be **low**. Whilst Hoy Wind Farm will contribute to the cumulative context, the distant location of the Offshore Development at a minimum of 39.7 km will limit the influence it has on the views of walkers on this summit, and this in turn will reduce its cumulative interaction with Hoy Wind Farm.

The combination of the high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level on this viewpoint.

##### 16.8.6.15.3 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, a minimum of approximately 20 km to the north-west of the Offshore Development and a minimum of approximately 32.8 km west of the viewpoint on the summit of Ward Hill. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the west of the viewpoint, at a minimum distance of approximately 32.8 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast of the Mainland of Scotland. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The cumulative effect will, however, be moderated by the substantial separation distances between this viewpoint and both the Offshore Development and the West Orkney Offshore Wind Farm, which means both will be seen as relatively distant features occupying only a small extent of the wider 360-degree view. The cumulative magnitude of change will be **low**.

The combination of the high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level on this viewpoint.

#### *16.8.6.16 Viewpoint 16: Tor Ness*

##### 16.8.6.16.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this viewpoint to be **medium-high**, the magnitude of change to be low and the effect to be not significant. The potential for significant cumulative effects to arise in respect of Scenario 1 and Scenario 2 will be limited owing to the distant location and weak cumulative influence of the consented and application stage developments. Whilst consented Hoy Wind Farm is located only 5.9 km from this viewpoint it will not be visible owing to the screening effect of the intervening hills. There is, however, the potential for a significant cumulative effect to arise in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

##### 16.8.6.16.2 Scenario 3 – operational, consented, application stage and West Orkney Offshore Wind Farm

The most notable future development is West Orkney Offshore Wind Farm. This will be located in the North Atlantic, 20 km to the north-west of the Offshore Development and 37.2 km west of the viewpoint at Tor Ness lighthouse. As the detail of West Orkney Offshore Wind Farm is not currently known, this assessment presents a high-level overview of the potential cumulative effects of the Offshore Development relative to this context.

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the west of the viewpoint, at a minimum distance of approximately 37.2 km. Whilst the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to draw offshore wind farms closer to the northern coast of the Mainland of Scotland. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm. The cumulative effect will, however, be moderated by the substantial separation distances between this viewpoint and both the Offshore Development and the West Orkney Offshore Wind Farm, which means both will be seen as relatively distant features occupying only a small extent of the wider 360-degree view. The cumulative magnitude of change will be **low**.

The combination of the medium-high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect at a **moderate / minor** level on this viewpoint.

#### *16.8.6.17 A836 / North Coast 500 / NCR 1*

##### 16.8.6.17.1 Potential for significant cumulative effects

The main assessment presented in Section 16.7, assessed the sensitivity of this principal visual receptor to vary between **medium** or **medium-low**, and the magnitude of change eastbound and westbound to vary between medium-high, medium and low. The effect of the Offshore Development on the A836 eastbound will be significant between Strathy and Reay and not significant for the remaining parts. The effect of the Offshore Development on the A836 westbound will be significant between Hill of Scrabster and Forss and then Reay and Melvich. and not significant for the remaining parts.

There are a number of large-scale operational developments close to this section of the A836 that have a bearing on the cumulative assessment including Forss Wind Farm, located a minimum of approximately 0.5

km to the north of the A836, west of Forss, and Baillie Hill Wind Farm, located a minimum of approximately 2.5 km to the south of the A836, west of Forss. The cumulative ZTVs in Figures 16.17 and 16.18 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows theoretical visibility of Baillie Hill and Forss wind farms to extend from Scrabster Hill to Drum Hollistan, albeit with visibility of Forss becoming patchy around Isauld and Reay. The Dounreay Nuclear Power Facility and Vulcan NRTE are also readily visible from the section of the A836 between west of Forss and Reay. Further west, Strathy North is visible from the A836 as it passes through the eastern part of Strathy and from the elevated sweeping moorland to the west of this settlement. The operational WTGs are seen at a minimum of approximately 5.5 km to the south of the A836, set adjacent to an afforested part of the sweeping moorlands.

There is the potential for cumulative effects to arise in respect of Scenario 1, relating to consented Limekiln Wind Farm, the decommissioning and remediation of Dounreay Nuclear Power Plant and Vulcan NRTE, and consented SSE Substation in respect of Scenario 2, relating to application stage Limekiln Resubmission, Limekiln Extension, Drum Hollistan 2, Ackron Resubmission and Forss III wind farms and in respect of Scenario 3, relating to West Orkney Offshore Wind Farm.

#### 16.8.6.17.2 Scenario 1 – Eastbound – operational and consented projects

Under Scenario 1, there is the potential for significant cumulative effects to arise on the views of eastbound road-users between Strathy Point in the west and Forss in the east. In addition to the influence from Baillie Hill, Forss and Strathy North operational wind farms, Scenario 1 includes the consented Limekiln Wind Farm and SHE-T Substation, as well as the decommissioning and remediation of Dounreay Nuclear Power Facility and Vulcan NRTE.

The cumulative ZTV in Figure 16.23 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that theoretical visibility of consented Limekiln Wind Farm will extend from Baillie Hill in the east to Drum Hollistan in the west, with a patch of no visibility around Forss. Limekiln Wind Farm will be located a minimum of approximately 3 km from the A836 where it passes from Isauld into Reay. Decommissioning of the Dounreay Nuclear Power Plant and Vulcan NRTE will involve the removal of the majority of the buildings and the remediation of the land. Whilst these changes will make a notable change to the character of this area, the retention of some of the buildings, as well as the operational SSE Substation and the addition of the consented SHE-T Substation will ensure that the influence from large-scale industrial developments will continue, albeit to a lesser extent. Whilst operational Strathy North is visible from parts of the A836 between Strathy and Kirtomy, the consented Strathy South Resubmission and Strathy Wood will be visible over similar extents, albeit with WTGs set at the minimum distance of approximately 8 and 12 km.

The addition of the Offshore Development to Cumulative Scenario 1 will give rise to variable cumulative magnitudes of change along the A836, owing to the variable influence from the Offshore Development and the cumulative developments.

In the section of the A836 between Strathy Point and Melvich, the cumulative magnitude of change on eastbound road-users will be **medium-low**. Whilst operational Strathy North will be located in the sweeping moorlands to the south, consented Strathy Wood and Strathy South Resubmission will be located at more distant ranges further south. It is in this context that the Offshore Wind Farm will be seen to spread wind farm development into the north-easterly sector, thus maximising the influence of this type of development relative to the views of road-users. The magnitude of change will be moderated by a combination of the separation distance of both the Offshore Development and onshore developments from the road, the contained horizontal extent they have relative to the wider available views and the location of the onshore wind farms perpendicular to the direction of travel which will reduce their prominence. Taking all these factors into account, the cumulative effect will be **not significant**.

In the section of the A836 between Melvich and Drum Hollistan, the cumulative magnitude of change will be **low**, and the cumulative effect will be **not significant**. This assessment reflects the limited influence from the cumulative developments, and the limited extents to which the Offshore Development will be visible, despite a notable influence from the Offshore Development where visibility does arise. From Drum Hollistan to Isauld, the cumulative magnitude of change will be **medium**, and the cumulative effect will be **significant**. This assessment relates to the presence and influence of Limekiln Wind Farm to the south of the A836 and the introduction of the Offshore Development to the north of the A836. Whilst these developments will be set perpendicular to the direction of eastbound road-users, such that their prominence will be moderated, they will



increase the spread of this type of development into opposite sectors. The cumulative magnitude of change is prevented from being rated medium-high by the contained horizontal extent of both these developments and the notable separation distance of the Offshore Development from the road at a minimum of approximately 9 km.

In the section of the A836 between Isauld and Forss, the cumulative magnitude of change will be **medium-low**, and the cumulative effect will be **not significant**. The reduction in built development at Dounreay Nuclear Facility and Vulcan NRTE will reduce the cumulative interaction between these sites and the Offshore Development, although there will still be a cumulative interaction owing to the remaining buildings, operational and consented substations and electricity transmission lines. Baillie Hill and Forss wind farms will have a notable influence on this section of the A836, as they are located close to the road and feature in the forward views of eastbound road-users. Whilst the seven WTGS, at a minimum of approximately 8 km will be seen to extend the influence of large-scale energy developments out into the open seascape, they will be seen at and beyond a perpendicular angle to the direction of the road and this will reduce their prominence in the views of road-users. Beyond Forss, the Offshore Development will lie to the rear of the direction of east-bound road-users and the cumulative magnitude of change will reduce to **low**, and the cumulative effect will be **not significant**.

#### 16.8.6.17.3 Scenario 1 – Westbound – operational and consented projects

Under Scenario 1, there is the potential for significant cumulative effects to arise on the views of westbound road-users between Scrabster Hill in the east and Strathy in the west. In addition to the influence from Baillie Hill, Forss and Strathy North operational wind farms, Scenario 1 includes the consented Limekiln Wind Farm and SHE-T Substation, as well as the decommissioning and remediation of Dounreay Nuclear Power Facility and Vulcan NRTE.

The cumulative ZTV in Figure 16.23 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that theoretical visibility of consented Limekiln Wind Farm will extend from Baillie Hill in the east to Drum Hollistan in the west, with a patch of no visibility around Forss. Limekiln Wind Farm will be located a minimum of approximately 3 km from the A836 where it passes from Isauld into Reay. Decommissioning of the Dounreay Nuclear Power Plant and Vulcan NRTE will involve the removal of the majority of the buildings and the remediation of the land. Whilst these changes will make a notable change to the character of this area, the retention of some of the buildings, as well as the operational SSE Substation and the addition of the consented SHE-T Substation will ensure that the influence from large-scale industrial developments will continue, albeit to a lesser extent.

The addition of the Offshore Development to Cumulative Scenario 1 will give rise to variable cumulative magnitudes of change along the A836, owing to the variable influence from the Offshore Development and the cumulative developments.

In the section of the A836 between Scrabster Hill and Forss, the only consented development visible will be Limekiln Wind Farm, although visibility of this will be limited owing to the separation distance of a minimum of approximately 10 km and the partial screening of intervening landform. Forss Wind Farm will be clearly visible on the coast and Baillie Hill Wind Farm visible inland from the coast, with both having a notable influence on the views of road-users owing to their proximity to the road. The addition of the Offshore Development will be moderated by the fact that it will be seen in the same sector of the view as the operational and consented wind farms and at a minimum of approximately 10 km. In these views the cumulative magnitude of change will be **medium-low**, and the cumulative effect will be **not significant**.

In the section of the A836 between Forss and Isauld, the cumulative magnitude of change will be **medium**, and the cumulative effect will be **significant**. The reduction in built development at Dounreay Nuclear Facility and Vulcan NRTE will reduce the cumulative interaction between these sites and the Offshore Development, although there will still be a cumulative interaction owing to the remaining buildings, operational and consented substations and electricity transmission lines. Baillie Hill and Forss wind farms will have a notable influence on this section of the A836, as they are located close to the road, albeit passing to the rear of westbound road-users. The Offshore Wind Farm will appear perpendicular to the direction of westbound road-users, seen at a minimum of approximately 8 km and with the offshore WTGS appearing comparable or smaller in scale to the closer-range onshore WTGS. It is in this context of close-range onshore developments that the Offshore Development will be seen to spread the influence of large-scale energy developments offshore and the exposed nature of views from this section of the A836 will make it a readily visible feature.

In the section of the A836 between Isauld and Drum Hollistan, the cumulative magnitude of change will be **medium**, and the cumulative effect will be **significant**. This assessment relates to the presence and influence of Limekiln Wind Farm to the south of the A836 and the introduction of the Offshore Development to the north of the A836. Whilst these developments will be set perpendicular to the direction of westbound road-users, such that their prominence will be moderated, they will increase the spread of this type of development into opposite sectors. The cumulative magnitude of change is prevented from being rated medium-high by the contained horizontal extent of both these developments and the notable separation distance of the Offshore Development from the road at a minimum of approximately 9 km.

In the section of the A836 between Drum Hollistan and Melvich, the cumulative magnitude of change on westbound road-users will be **low**, and the cumulative effect will be **not significant**. This assessment reflects the limited influence from the cumulative developments, and the limited extents to which the Offshore Development will be visible, despite a notable influence from the Offshore Development where visibility does arise.

In the section of the A836 between Melvich, the cumulative magnitude of change on westbound road-users will be **medium-low** and the cumulative effect will be **not significant**. Whilst operational Strathy North will be located in the sweeping moorlands to the south, consented Strathy Wood and Strathy South Resubmission will be located at more distant ranges further south. It is in this context that the Offshore Wind Farm will be seen to spread wind farm development into the north-easterly sector, thus maximising the influence of this type of development relative to the views of road-users. The magnitude of change will be moderated by a combination of the separation distance of both the Offshore Development and onshore developments from the road, the contained horizontal extent they have relative to the wider available views and the location of the onshore wind farms passing to the rear of the direction of travel, which will reduce their prominence.

#### 16.8.6.17.4 Scenario 2 – Eastbound – operational, consented and application stage projects

Under Scenario 2, there is the potential for significant cumulative effects to arise on the views of eastbound road-users between Strathy Point in the west and Forss in the east. In addition to the influence from Baillie Hill, Forss and Strathy North operational wind farms, the consented SHE-T Substation, and decommissioning and remediation of Dounreay Nuclear Power Facility and Vulcan NRTE, Scenario 2 includes application stage Limekiln Wind Farm Resubmission and Extension, Drum Hollistan 2 and Ackron Resubmission.

The cumulative ZTV in Figure 16.23 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that theoretical visibility of Limekiln Wind Farm Resubmission and Extension will extend from Baillie Hill in the east to Drum Hollistan in the west, with a patch of no visibility around Forss. Limekiln Wind Farm Resubmission will be located a minimum of approximately 3 km from the A836 where it passes from Isauld into Reay. The cumulative ZTV in Figure 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that visibility of application stage Drum Hollistan 2 and Ackron Resubmission will extend from Scrabster Hill in the east to Kirtomy in the west, albeit with gaps of no visibility around the low-lying settlements of Forss, Strathy and Armadale and no visibility to the east of Melvich. Drum Hollistan 2 lies a minimum of approximately 1 km to the south of the A836 at Drum Hollistan, whilst Ackron Resubmission lies a minimum of approximately 1 km, such that both will present especially close-range wind farms in the views of road-users.

The addition of the Offshore Development to Cumulative Scenario 2 will give rise to variable cumulative magnitudes of change along the A836, owing to the variable influence from the Offshore Development and the cumulative developments.

In the section of the A836 between Strathy Point and Melvich, there will be no notable changes between Scenario 1 and Scenario 2 and therefore, the cumulative magnitude of change on eastbound road-users will be **medium-low** and the cumulative effect will be **not significant**, as assessed under Scenario 1.

In the section of the A836 between Melvich and Drum Hollistan, the cumulative magnitude of change will be **medium**, and the cumulative effect will be **significant**. This assessment reflects the additional influence from the application stage Drum Hollistan 2 and Ackron Resubmission wind farms, which will be located close to the south of this section of the A836. The addition of the Offshore Development in the opposite northerly sector will increase the spread of wind farm development and this, along with the influence of these tall structures and their location in a previously undeveloped seascape, will add to the cumulative magnitude of change.

In the section of the A836 between Drum Hollistan and Isauld, the cumulative magnitude of change will be **medium**, and the cumulative effect will be **significant**. This assessment relates to the presence and influence of Limekiln Wind Farm Resubmission and Extension to the south of the A836 and the introduction of the Offshore Development to the north of the A836. Whilst these developments will be set perpendicular to the direction of westbound road-users, such that their prominence will be moderated, they will increase the spread of this type of development into opposite sectors. The cumulative magnitude of change is prevented from being rated medium-high by the contained horizontal extent of both these developments and the notable separation distance of the Offshore Development from the road at a minimum of approximately 9 km.

In the section of the A836 between Isauld and Forss, there will be no notable changes between Scenario 1 and Scenario 2 owing to the limited influence of application stage developments on the views of eastbound road-users. Therefore, the cumulative magnitude of change on eastbound road-users will be **medium-low** and the cumulative effect will be **not significant**, as assessed under Scenario 1. Beyond Forss, the Offshore Development will lie to the rear of the direction of east-bound road-users and the cumulative magnitude of change will reduce to **low**, and the cumulative effect will be **not significant**.

#### 16.8.6.17.5 Scenario 2 – Westbound - – operational, consented and application stage projects

Under Scenario 2, there is the potential for significant cumulative effects to arise on the views of westbound road-users between Scrabster Hill in the east and Strathy in the west. In addition to the influence from Baillie Hill, Forss and Strathy North operational wind farms, the consented SHE-T Substation, and decommissioning and remediation of Dounreay Nuclear Power Facility and Vulcan NRTE, Scenario 2 includes application stage Limekiln Wind Farm Resubmission and Extension, Drum Hollistan 2 and Ackron Resubmission.

The cumulative ZTV in Figure 16.23 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that theoretical visibility of Limekiln Wind Farm Resubmission and Extension will extend from Baillie Hill in the east to Drum Hollistan in the west, with a patch of no visibility around Forss. Limekiln Wind Farm Resubmission will be located a minimum of approximately 3 km from the A836 where it passes from Isauld into Reay. The cumulative ZTV in Figure 16.26 (Offshore EIAR [Volume 4]: Appendix 16.9c) shows that visibility of application stage Drum Hollistan 2 and Ackron Resubmission will extend from Scrabster Hill in the east to Kirtomy in the west, albeit with gaps of no visibility around the low-lying settlements of Forss, Strathy and Armadale and no visibility to the east of Melvich. Drum Hollistan 2 lies a minimum of approximately 1 km to the south of the A836 at Drum Hollistan, whilst Ackron Resubmission lies a minimum of approximately 1 km, such that both will present especially close-range wind farms in the views of road-users.

The addition of the Offshore Development to Cumulative Scenario 1 will give rise to variable cumulative magnitudes of change along the A836, owing to the variable influence from the Offshore Development and the cumulative developments.

In the section of the A836 between Scrabster Hill and Forss, the only consented development visible will be Limekiln Wind Farm Resubmission and Extension, although visibility of this will be limited owing to the separation distance of a minimum of approximately 10 km and the partial screening of intervening landform. Forss Wind Farm will be clearly visible on the coast and Baillie Hill Wind Farm visible inland from the coast, with both having a notable influence on the views of road-users owing to their proximity to the road. The addition of the Offshore Development will be moderated by the fact that it will be seen in the same sector of the view as the operational and consented wind farms and at a minimum of approximately 10 km, such that the horizontal extent will be contained. In these views the cumulative magnitude of change will be **medium-low**, and the cumulative effect will be **not significant**.

In the section of the A836 between Forss and Isauld, the cumulative magnitude of change on westbound road-users will be **medium** and the cumulative effect will be **significant**. Baillie Hill and Forss wind farms will have a notable influence on this section of the A836, as they are located close to the road, albeit passing to the rear of westbound road-users. Furthermore, application stage Limekiln Wind Farm Resubmission and Extension, Drum Hollistan 2 and Ackron Resubmission wind farms will form a cluster to the south-west, and appear prominent owing to the alignment of westbound road-users in this direction. The Offshore Wind Farm will appear perpendicular to the direction of westbound road-users, seen at a minimum of approximately 8 km and with the offshore WTGs appearing comparable or smaller in scale to the closer-range onshore WTGs. It is in this context of close-range onshore developments that the Offshore Development will be seen to spread the

influence of large-scale energy developments offshore and the exposed nature of views from this section of the A836 will make it a readily visible feature.

In the section of the A836 between Isauld and Drum Hollistan, the cumulative magnitude of change will be **medium**, and the cumulative effect will be **significant**. This assessment relates to the presence and influence of Limekiln Wind Farm to the south of the A836 and the introduction of the Offshore Development to the north of the A836. Whilst these developments will be set perpendicular to the direction of westbound road-users, such that their prominence will be moderated, they will increase the spread of this type of development into opposite sectors. The cumulative magnitude of change is prevented from being rated medium-high by the contained horizontal extent of both these developments and the notable separation distance of the Offshore Development from the road at a minimum of approximately 9 km.

In the section of the A836 between Drum Hollistan and Melvich, the cumulative magnitude of change on westbound road-users will be **low**, and the cumulative effect will be **not significant**. This assessment reflects the limited influence from the cumulative developments, and the limited extents to which the Offshore Development will be visible, despite a notable influence from the Offshore Development where visibility does arise.

In the section of the A836 between Melvich, there will be no notable changes between Scenario 1 and Scenario 2 and therefore, the cumulative magnitude of change on eastbound road-users will be **medium-low** and the cumulative effect will be **not significant**, as assessed under Scenario 1.

#### 16.8.6.18 Summary of cumulative effects on visual receptors

The assessment of the cumulative effects of the Offshore Development has found that the following five viewpoints will undergo significant cumulative effects.

- > Viewpoint 1: Beinn Ratha - significant cumulative effects during Scenario 1, Scenario 2 and Scenario 3;
- > Viewpoint 2: Strathy Point - significant cumulative effects during Scenario 3;
- > Viewpoint 3: Portskerra / Melvich - significant cumulative effects during Scenario 2 and Scenario 3;
- > Viewpoint 4: Drum Hollistan - significant cumulative effects during Scenario 1, Scenario 2 and Scenario 3; and
- > Viewpoint 5: Sandside Head - significant cumulative effects during Scenario 1, Scenario 2 and Scenario 3.

In respect of the principal visual receptors, there will be significant cumulative effects on the A836 eastbound between Drum Hollistan and Isauld under Scenario 1, and Melvich and Isauld under Scenario 2. The significant cumulative effects on the A836 westbound will occur between Forss and Drum Hollistan under Scenario 1 and Forss and Drum Hollistan under Scenario 2.

Table 16.20 Summary of cumulative effects on visual receptors

Receptors	Sensitivity	Scenario 1 Magnitude of change / Significance of effect	Scenario 2 Magnitude of change / Significance of effect	Scenario 3 Magnitude of change / Significance of effect
<b>Visual Receptors</b>				
1 Beinn Ratha	Medium-high	Medium Significant (moderate)	Medium Significant (moderate)	Medium Significant (moderate)
2 Strathy Point Car Park	Medium-high	Low Not significant (moderate/minor)	Medium-low Not significant (moderate)	Medium Significant (moderate)

Receptors	Sensitivity	Scenario 1 Magnitude of change / Significance of effect	Scenario 2 Magnitude of change / Significance of effect	Scenario 3 Magnitude of change / Significance of effect
3 Portserra/Melvich	Medium-high	Limited potential for significant cumulative effects	Medium Significant (moderate)	Medium Significant (moderate)
4 Drum Holliston Car Park	Medium-high	Medium Significant (moderate)	Medium Significant (moderate)	Medium Significant (moderate)
5 Sandside Headland	Medium	Medium Significant (moderate)	Medium Significant (moderate)	Medium Significant (moderate)
6 St Mary's Chapel, Forss	Medium-high	Limited potential for significant cumulative effects	Medium-low Not significant (moderate)	Medium-low Not significant (moderate)
7 Dunnet Head	Medium-high	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Medium-low Not significant (moderate)
8 Scrabster – Stromness Ferry	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low Not significant (moderate/minor)
9 Old Man of Hoy	High	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low Not significant (moderate/minor)
10 A836 East of Forss	Medium-high Medium	Medium-low Not significant (moderate)	Medium-low Not significant (moderate)	Medium-low Not significant (moderate)
11 Ben Griam Beg	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects
12 Ben Loyal	High	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects
13 A' Mhoine	High	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low Not significant (moderate/minor)
14 Ben Dorrery	Medium	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)



Receptors	Sensitivity	Scenario 1 Magnitude of change / Significance of effect	Scenario 2 Magnitude of change / Significance of effect	Scenario 3 Magnitude of change / Significance of effect
15 Ward Hill, Hoy	High	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low Not significant (moderate/minor)
16 Tor Ness, Hoy	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low Not significant (moderate/minor)
A836 eastbound	Medium-high / medium / medium-low	Medium Significant – Drum Hollistan to Isauld Medium-low / low Not significant – all remaining sections	Medium Significant –Melvich to Isauld Medium-low / low Not significant – all remaining sections	Medium Significant –Melvich to Isauld Medium-low / low Not significant – all remaining sections
A836 westbound	Medium-high / medium / medium-low	Medium Significant – Forss to Drum Hollistan Medium-low / low Not significant – all remaining sections	Medium Significant – Forss to Drum Hollistan Medium-low / low Not significant – all remaining sections	Medium Significant – Forss to Drum Hollistan Medium-low / low Not significant – all remaining sections

## 16.9 Assessment of Transboundary Effects

In terms of the impacts on landscape and visual receptors, impacts will be localised to the extent of the SLVIA Study Area, covering the northern part of the UK and within UK waters. Given the intervening distance to neighbouring European Economic Area (EEA) states, there is no potential for transboundary impacts and resultant effects to occur.

## 16.10 Assessment of Impacts Cumulatively with the Onshore Development

The Onshore Development components are summarised in Chapter 5: Project Description. These Project aspects have been considered in relation to the impacts assessed within this Chapter.

The Assessment of Impacts Cumulatively with the Onshore Development considers the effects of the Offshore Development cumulatively with the Onshore Development. The potential for cumulative effects will arise in respect of those landscape and visual receptors that will be affected by both the Onshore and Offshore Development. In respect of landscape receptors, these will include the Farmed Lowland Plain LCT in which the Onshore Development will be located and upon which visibility of the Offshore Development will have indirect effects, and the Crosskirk Bay to White Geos LCCA which lies adjacent to the Onshore Development and also upon which visibility of the Offshore Development will have indirect effects. In respect of visual receptors, these will include Viewpoint 1: Beinn Ratha and Viewpoint 4: Drum Hollistan, which present elevated views across the north coast, and Viewpoint 5: Sandside Head which presents a lower-lying view out across the North Atlantic and across Sandside Bay.

The Onshore Development and Offshore Development are very different developments in terms of their size, structure and context which in turn affects the extents and magnitude to which their respective LVIA and SLVIA

Study Areas will be affected. The assessment of the Offshore Development presented in Section 16.7 concludes that significant effects will occur within a radius of 13 km of the Offshore Development, largely owing to the scale of the WTGs and the undeveloped seascape in which they will be located. The effects of the Onshore Development will be of a notably lower magnitude, largely owing to the relatively small scale of the Onshore Transmission Infrastructure, including the substation, and its location adjacent to the existing Dounreay Nuclear Power Plant, Vulcan NRTE and the existing SSE Dounreay Substation, which comprise a complex of similar sized and larger sized energy developments. It is in this context that the introduction of the Onshore Transmission Infrastructure and substation will give rise to a very limited magnitude of change and the potential for the Onshore Development to give rise to significant effects on any of the landscape or visual receptors is unlikely. This includes those close-range landscape and visual receptors highlighted above, in respect of which the Onshore Transmission Infrastructure and substation will appear as an incremental and relatively small-scale extension to the existing industrial complex of the Dounreay Site, Vulcan NRTE and existing Dounreay SSE Substation.

The very limited potential for significant effects to arise on any of the landscape and visual receptors as a result of the Onshore Development means that in considering the cumulative impacts of these developments, impacts will relate almost entirely to the solus effects of the Offshore Development and not the cumulative effects of the Offshore Development and Onshore Development.

## 16.11 Mitigation and Monitoring Requirements

There is no additional mitigation proposed over and above the embedded measures for the Offshore Development in Section 16.5.5.

## 16.12 Inter-relationships

Interrelated effects describe the potential interaction of multiple project impacts upon one receptor which may interact to create a more significant impact on a receptor than when considered in isolation. Interrelated effects may have a temporal or spatial element and may be short term, temporary or longer term over the life-cycle of the Offshore Development.

In line with the Scoping Opinion and Scoping Addendum Opinion received, this chapter has assessed all impacts that are relevant to Seascape, Landscape, and Visual Amenity receptors during construction, operation and maintenance and decommissioning phases of the Offshore Development.

Therefore, it is considered that the assessment and conclusions presented in Section 16.14 provides a complete and robust assessment of all potential impacts relevant to Seascape, Landscape, and Visual Amenity receptors. The assessment has also considered the potential for inter-related effects in relation to Seascape, Landscape and Visual Amenity, and no additional inter-related effects beyond those presented in this chapter have been identified.

Where the assessment contained in this chapter is considered within other assessment chapters, a summary of these interrelationships are presented below in Table 16.21.

Table 16.21 Inter-relationships identified with landscape and visual receptors and other receptors in this EIAR

Receptor	Impacts	Description
Cultural Heritage	Indirect impacts on landscape character and visual amenity and on the setting and experience of Historic Environment Assets.	Indirect impacts on landscape character and visual amenity as a result of the Offshore Development also have the potential to effect the setting and experience of Historic Environment Assets that coincide with, or which relate to the landscape and visual receptors assessed. These potential impacts are assessed within Chapter 17: Marine Archaeology and Cultural Heritage within this EIAR.

Receptor	Impacts	Description
Tourism	Indirect impacts on landscape character visual amenity and on the setting and experience of Tourism Assets.	Indirect impacts on landscape character and visual amenity as a result of the Offshore Development also have the potential to effect the setting and experience of Tourism Assets that coincide with, or which relate to the landscape and visual receptors assessed. These potential impacts are assessed within Chapter 19: Socio-economics, Recreation and Tourism within this EIAR.

### 16.13 Comparative Assessment

The principle of developing an offshore wind farm in this location has been accepted through the consent of the Dounreay Tri Demonstration Offshore Wind Project (DTDOWP). This consent was for two WTGs with a blade tip height of up to 201 m. Whilst this consent presents some degree of certainty that an offshore windfarm will be built out in this location, the SLVIA for the Offshore Development has been based on the baseline scenario in which the seven proposed WTGs will be added to an undeveloped seascape, in order that the worst-case scenario is being assessed.

The maximum Design Envelope, comprising seven WTGs up to 300 m blade tip, would give rise to more extensive landscape and visual effects than the consented two WTGs up to 201 m blade tip, as would be expected. Whilst significant effects have been assessed along the closest coastal landscapes for both the consented DTDOWP and the Offshore Development, the extent of significant effects will extend further along the coast and inland in respect of the Offshore Development owing to the larger size and larger number of WTGs and its more extensive visibility.

If the assessment of the Offshore Development were carried out with the consented DTDOWP considered as an established feature of the baseline, the magnitude of change arising as a result of the Offshore Development would be reduced, as the seven WTGs would not be introducing WTGs into an undeveloped seascape but instead would be replacing two existing WTGs. The reduction in the magnitude of change in respect of most landscape and visual receptors would not change the significance of effect in respect of the closer range landscape and visual receptors, as typically the magnitude of change would reduce from high to medium-high or medium-high to medium. There would potentially be a reduction in the significance of effects in respect of the medium range landscape and visual receptors which are on the borderline between significant and not significant effects.

In respect of a comparative assessment with the DTDOWP, the Offshore Development would, therefore, have a reduced extent of threshold, whereby significant effects would be more localised and likely to be concentrated along the coastal edge with a lesser extent into the coastal hinterland.

### 16.14 Summary of Residual Effects

The potential effects on the landscape and visual receptors that would arise as a result of the Offshore 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 Offshore 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 Offshore Development. The findings of the assessment are presented in summary in Table 16.22 below and highlight the localised extent within which significant effects will occur.

The worst case scenario for the Offshore Development, in respect of the SLVIA, will comprise seven WTGs with a maximum blade tip height of 300 m above HAT. These WTGs will be set on floating substructures which will span 125 m x 125 m with a 30 m height above HAT. The seven WTGs will be located in the PFOWF Array Area and arranged to maximise their proximity to the closest coastal edge, with two WTGs set along the southern boundary of the PFOWF Array Area, three across the middle and the remaining two WTGs forming a row behind, all spaced to ensure sufficient separation in line with technical requirements.

The SLVIA Study Area for the Offshore Development covers a radius of 50 km and within this area, those receptors with the potential to be significantly affected have been assessed in detail. This has included five LCTs / eight LCUs, ten LCCAs, four designated landscape areas, two WLAs, 16 viewpoints and one route used by visual receptors. Photomontages have been prepared for eight of the viewpoints showing the Design Envelope of the PFOWF Array Area and the worst case scenario with the seven WTGs. Wirelines have been prepared for the remaining eight viewpoints beyond 20 km. The figures also include a wireline of the Offshore Development on its own and a wireline with all other cumulative developments. These visualisations have assisted in the assessment process.

The Figures are presented in Offshore EIAR (Volume 4): Appendix 16.9: SLVIA Visual Materials. Figures 16.1 to 16.30 (Offshore EIAR [Volume 4]: Appendix 16.9c) show plans of the SLVIA Study Area, landscape receptors, visual receptors and ZTVs of the Offshore Development on its own and in combination with other cumulative windfarms, whilst Figures 16.31 to 16.62 (Offshore EIAR [Volume 4]: Appendix 16.9a and (Offshore EIAR [Volume 4]: Appendix 16.9b) show the photographs, wirelines and photomontages from the representative viewpoints.

The principle of developing an offshore wind farm in this location has been accepted through the consent of the Dounreay Tri Demonstration Offshore Wind Project. Although this consent presents some degree of certainty that an offshore wind farm will be developed in this location, the SLVIA for the Offshore Development has been based on the baseline scenario of an undeveloped seascape. The maximum Design Envelope, comprising seven WTGs up to 300 m blade tip, would give rise to more extensive landscape and visual effects than the consented two WTGs up to 201 m blade tip, as would be expected. If the effects of the Offshore Development were assessed against a baseline comprising the consented development, the extent of the effects would be likely to be marginally reduced.

The suitability of the PFOWF Array Area to accommodate the Offshore Development relates to the expansive and large-scale extent of the seascape, its relative simplicity and lack of existing development. The relatively small number of WTGs and their compact footprint, ensures they occupy a relatively contained proportion of the wider seascape as demonstrated in the Horizontal Angle ZTV in Figure 16.8 (Offshore EIAR [Volume 4]: Appendix 16.9c). Their location beyond 7.5 km from the coastline ensures there will be no close range receptors affected and, furthermore, only specific landscape and visual receptors to the south, within a range of 8 to 13 km, will be significantly affected. Whilst the presence of the floating substructures will add to the overall effect of the WTGs, they also denote the temporary nature of these structures and reduce any perception of permanence.

The focus of the assessment has been the effects of the Offshore Development during the operational phase. The WTGs will be constructed off-site, at a port facility specialised in the construction of offshore structures, from where the WTGs will be towed to the PFOWF Array Area. The construction phase will, therefore, be based around the installation of the WTGs which will have a comparable effect to the effect that will occur during the operational phase. Similarly, the effects during the decommissioning phase, when the WTGs will be uninstalled, will be no greater than the effects assessed in respect of the operational phase. The detailed methodology for carrying out the SLVIA is presented in Appendix 16.1.

The assessment of effects on landscape character found that significant effects will arise as a result of the Offshore Development within four of the five LCTs that occur in the SLVIA Study Area. Those LCTs / LCUs that will undergo significant effects are as follows:

- > Sandy Beaches and Dunes LCT - Melvich Bay LCU and Sandside Bay LCU;
- > High Cliffs and Sheltered Bays LCT - Portskerra to Strathy Point LCU and Sandside Head to Melvich LCU;
- > Sweeping Moorland LCT – out to 13 km from the Offshore Development; and
- > Coastal Crofts and Small Farms LCT – Strathy LCU and Portskerra / Melvich LCU.

These significant effects will be especially localised, occurring across the limited extents of the small coastal LCTs / LCUs which have a close association with the adjacent seascape. Whilst the majority of the Sweeping Moorland LCT will either not be significantly affected or not be affected, there will be a localised effects across the norther part, extending out to a radius of approximately 13 km to the south-west and south. Significant

effects will not extend across the Farmed Lowland Plain to the south-east owing to the baseline influence from the Dounreay Nuclear Power Facility, Vulcan NRTE, SSE Substation, and Forss and Baillie Hill wind farms, which are located in this area. The effect of the Offshore Development on all other LCTs / LCUs will not be significant.

The assessment of effects on coastal character has assessed ten LCCAs within a 20 km radius of the Offshore Development. The assessment found that five have the potential to be significantly affected and five not significantly affected. The five with potential to be significantly affected cover the section of coast from Strathy Point in the west to Sandside Bay in the east, largely coinciding with the coastal LCTs / LCUs where significant effects have already been assessed. These effects are found to be relatively localised extending out to ranges of approximately 8 to 10 km from the Offshore Development. The effect on all other LCCAs and parts of LCCAs in the 20 km radius will be not significant.

The Offshore Development will also have a significant effect on the corresponding parts of the Farr Bay, Strathy and Portskerra SLA, covering coastal parts out to approximately 13 km, but not on the remaining parts of the SLA. There will be no significant effects on the more distant Dunnet Head SLA to the east.

A detailed assessment of the effects on the special qualities of the Kyle of Tongue NSA presented in Appendix 16.2 found that the six SLQs will either not be significantly affected or remain unaffected and the overall effect on the NSA will be not significant. A detailed assessment of the effects on the special qualities of the Hoy and West Mainland NSA presented in Appendix 16.3 found that the Offshore Development will not give rise to any significant effects on the SLQs of this nationally designated area. Similarly, the detailed assessment of the effects on the perceptual responses experienced in the East Halladale Flows WLA and Hoy WLA, presented in Appendices 16.4 and 16.5 also found that there will be no significant effects.

The assessment of the effects of the Offshore Development has found that significant effects will occur at five of the 16 representative viewpoints. The viewpoints that will be significantly affected all lie within a 13 km radius of the Offshore Development and include;

- > Viewpoint 1: Beinn Ratha;
- > Viewpoint 2: Strathy Point Car Park;
- > Viewpoint 3: Portskerra / Melvich
- > Viewpoint 4: Drum Hollistan layby; and
- > Viewpoint 5: Sandside Head.

The viewpoints would mostly be affected owing to their close proximity and association with the coast or elevated perspective towards the coast. There are two viewpoints within the 13 km extent which will not be significantly affected owing to the closer range influences from large-scale onshore energy developments, and all viewpoints beyond this range will not be significantly affected as a result of the Offshore Development.

In respect of the principal visual receptors, east-bound road-users on the A836 will be significantly affected in the section between Strathy and Reay, whilst west-bound road-users will be significantly affected in the section between Hill of Scrabster and Forss and then Reay and Melvich.

The most relevant wind farms to the cumulative assessment are operational Baillie Hill Wind Farm, Forss Wind Farm, and Strathy North, consented Limekiln Wind Farm, consented SSE Substation and consented decommissioning of Dounreay Nuclear Power Plant and Vulcan NRTE and application stage Limekiln Resubmission and Extension, Drum Hollistan 2 and Ackron Resubmission, all of which have an influence on the north coast between Strathy Point and Scrabster Hill. Future proposed West Orkney Offshore Wind Farm has been included in the cumulative assessment in response to requests from THC and NatureScot and despite the limited information available about this project.



The cumulative assessment covers the following three scenarios;

- > **Cumulative Scenario 1** assesses the effects of adding the Offshore Development to a cumulative situation comprising all operational, under construction and consented large-scale energy developments.
- > **Cumulative Scenario 2** assesses the effects of adding the Offshore Development to a cumulative situation comprising all operational, under construction, consented and application large-scale energy developments.
- > **Cumulative Scenario 3** assesses the effects of adding the Offshore Development to a cumulative situation comprising all operational, under construction, consented, application large-scale energy developments and West Orkney Offshore Wind Farm.

The assessment of cumulative effects on landscape and coastal character has identified that significant cumulative effects, will arise as a result of the addition of the Offshore Development to cumulative Scenario 1, across the Sweeping Moorlands LCT out to approximately 13 km. In respect of Scenario 2, cumulative effects will occur across the Sweeping Moorlands LCT out to approximately 10 km and across LCCA 47c Sandside Head to Leac Chailein and LCCA 47d Leac Chailein to Rubha Bhra. In respect of Scenario 3, cumulative effects on coastal and landscape character will be much more widespread, affecting the Sandy Beaches and Dunes LCT, High Cliffs and Sheltered Bays LCT, the Sweeping Moorland LCT and the Coastal Crofts and Small Farms LCT, as well as the LCCAs between White Geos and Strathy Point.

In respect of Scenario 2 and Scenario 3, the addition of the Offshore Development will give rise to significant cumulative effects on the Farr Bay, Strathy and Portskerra SLA covering coastal parts out to approximately 13 km, but not on the remaining parts of the SLA. The other landscape designations and/ mapped interests, including Dunnet Head SLA, Kyle of Tongue NSA, Hoy and West Mainland NSA, East Halladale Flows WLA, and Hoy WLA will not undergo significant cumulative effects in respect of any of the three scenarios.

The assessment of the cumulative effects of the Offshore Development has found that the following five viewpoints will undergo significant cumulative effects.

- > Viewpoint 1: Beinn Ratha - significant cumulative effects during Scenario 1, Scenario 2 and Scenario 3;
- > Viewpoint 2: Strathy Point - significant cumulative effects during Scenario 3;
- > Viewpoint 3: Portskerra / Melvich - significant cumulative effects during Scenario 2 and Scenario 3;
- > Viewpoint 4: Drum Hollistan - significant cumulative effects during Scenario 1, Scenario 2 and Scenario 3; and
- > Viewpoint 5: Sandside Head - significant cumulative effects during Scenario 1, Scenario 2 and Scenario 3.

In respect of the principal visual receptors, there will be significant cumulative effects on the A836 eastbound between Drum Hollistan and Isauld under Scenario 1, and Melvich and Isauld under Scenario 2. The significant cumulative effects on the A836 westbound will occur between Forss and Drum Hollistan under Scenario 1 and Forss and Drum Hollistan under Scenario 2.

In Appendix 16.6, the visual effect of the WTG aviation lighting has been considered from four representative viewpoints, with consideration given also to the effects across the wider coastal area. 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 during periods when there is visibility at a range greater than 5 km. The assessment has found that whilst aviation lighting would have an effect on visual receptors at each of the four viewpoints, that these effects will not be significant largely owing to a combination of the limited number of hub lights visible, their relatively well contained extents and the baseline influence from lighting along the settled coastline where either the viewpoints are located or where the viewpoints look over.

In summary, the Offshore Development will give rise to some significant effects and significant cumulative effects on coastal and landscape character in the area between Strathy Point in the west and Crosskirk in the east, with the closest coastal edge at a minimum of approximately 7.5 km from the Offshore Development.

The significant effects will extend inland to the south and south-west to cover an extent of up to 13 km. The Offshore Development will also give rise to significant effects on visual amenity on most viewpoints out to approximately 13 km and on sections of the A836 between Hill of Scrabster and Strathy Point. The only designated landscape that will undergo significant and cumulative significant effects will be the regionally designated Farr Bay, Strathy and Portskerra SLA. The effects are, therefore, found to be relatively localised within the SLVIA Study Area, largely affecting an area of the coast and landscape that currently has some development characteristics in the form of energy development and onshore wind farms. Such localised effects ensure that the cumulative effects are also not far-reaching. The localised nature of these effects means that the majority of the landscape and visual receptors across the wider SLVIA Study Area will either undergo not significant effects or will not be affected.

Table 16.22 Summary of residual effects for SLVIA

Receptors	Sensitivity	Magnitude of Change	Significance of Effect
<b>Operation and Maintenance</b>			
<b>Landscape Character Types / Units</b>			
Farmed Lowland Plain LCT	Medium	Medium-low / Low / No change	Not significant (moderate / minor) No effect
Sandy Beaches and Dune LCT: Sandside Bay LCU / Melvich Bay LCU	Medium-high / Medium	Medium	Significant (moderate)
High Cliffs and Sheltered Bays LCT: Melvich to Sandside LCU / Strathy Point to Melvich LCU	Medium-high	Medium-high	Significant (major/moderate)
Sweeping Moorland and Flows LCT	Medium-high / Medium / Medium-low	Medium-high / Medium Low	Significant (major/moderate and moderate) – out to approximately 13 km Not significant (minor) – all remaining parts
Coastal Crofts and Small Farms LCT: Strathy LCU / Melvich and Portskerra LCU	Medium-high	Medium-high	Significant (major/moderate)
<b>Local Coastal Character Areas</b>			
LCCA 47a Crosskirk Bay to White Geos	Medium	Medium-low	Not significant (moderate/minor)
LCCA 47b White Geos to Sandside	Medium	Medium	Significant (moderate)

Receptors	Sensitivity	Magnitude of Change	Significance of Effect
<b>Operation and Maintenance</b>			
LCCA 47c Sandside Head to Leac Chailein	Medium-high	Medium-high	Significant (major/moderate)
LCA 47d Leac Chailein to Rhubha Bhra	Medium-high	Medium-high	Significant (major/moderate)
LCCA 46a Holborn Head to Long Rock	Medium	Medium	Not significant (moderate)
LCCA 46b Long Rock to Crosskirk Bay	Medium	Medium	Not significant (moderate)
LCCA 45a Donald Gear's Geo to Point Ness	Medium-high	Medium-low	Not significant (moderate)
LCCA 44f Easter Head to Donald Gear's Geo	Medium-high	Medium-low	Not significant (moderate)
Rubha Bhra to Strathy Bay	Medium-high	Medium-high	Significant (major/moderate)
Strathy Bay to Strathy Point	Medium-high	Medium-high	Significant (major/moderate)
<b>Landscape Designations</b>			
Kyle of Tongue NSA	High	Low	Not significant (moderate and moderate/minor)
Hoy and West Mainland NSA	High	Low	Not significant (moderate/minor)
Farr Bay, Strathy and Portskerra SLA	Medium-high	Medium-high / medium Medium-low / low	Significant (moderate/minor) – coastal parts out to approximately 13 km Not significant (moderate and moderate/minor) – all remaining parts

Receptors	Sensitivity	Magnitude of Change	Significance of Effect
<b>Operation and Maintenance</b>			
Dunnet Head SLA	Medium-high	Medium-low / low	Not significant (moderate and moderate/minor)
<b>Wild Land Areas</b>			
East Halladale Flows WLA	Medium-high	Low	Not significant (moderate/minor)
Hoy WLA	Medium-high	Low	Not significant (moderate/minor)
<b>Representative Viewpoints</b>			
1 Beinn Ratha	Medium-high	Medium-high	Significant (major/moderate)
2 Strathy Point Car Park	Medium-high	Medium-high	Significant (major/moderate)
3 Portskerra/Melvich	Medium-high	Medium-high	Significant (major/moderate)
4 Drum Holliston Car Park	Medium-high	Medium-high	Significant (major/moderate)
5 Sandside Headland	Medium	Medium-high	Significant (moderate)
6 St Mary's Chapel, Forss	Medium-high	Medium-low	Not significant (moderate)
7 Dunnet Head	Medium-high	Medium-low	Not significant (moderate)
8 Scrabster – Stromness Ferry	Medium-high	Medium-low	Not significant (moderate)
9 Old Man of Hoy	High	Low	Not significant (moderate/minor)
10 A836 East of Forss	Medium-high Medium	Medium-low	Not significant (moderate)
11 Ben Griam Beg	Medium-high	Low	Not significant (moderate/minor)



Receptors	Sensitivity	Magnitude of Change	Significance of Effect
<b>Operation and Maintenance</b>			
12 Ben Loyal	High	Low	Not significant (moderate/minor)
13 A' Mhoine	High	Low	Not significant (moderate/minor)
14 Ben Dorrery	Medium	Medium-low	Not significant (moderate/minor)
15 Ward Hill, Hoy	Medium-high	Low	Not significant (moderate/minor)
16 Tor Ness, Hoy	Medium-high	Low	Not significant (moderate/minor)
<b>Principal Visual Receptors</b>			
A836 Eastbound	Medium -high / medium / medium-low	Medium-high / medium Medium-low / low	Significant (major/moderate and moderate) – Strathy to Reay Not significant (moderate, moderate/minor and minor) – all remaining parts
A836 Westbound	Medium -high / medium / medium-low	Medium-high / medium Medium-low / low	Significant (major/moderate and moderate) – Hill of Scrabster to Forss and Reay to Melvich Not significant (moderate, moderate/minor and minor) – all remaining parts
<b>Construction and Decommissioning</b>			
The construction phase will be based around the installation of the WTGs which will have a comparable effect to the effect that will occur during the operational phase. Similarly, the effects during the decommissioning phase, when the WTGs will be uninstalled, will be no greater than the effects assessed in respect of the operational phase.			

Table 16.23 Summary of residual cumulative effects for SLVIA

Receptors	Sensitivity	Scenario 1 Magnitude of Change / Significance of Effect	Scenario 2 Magnitude of Change / Significance of Effect	Scenario 3 Magnitude of Change / Significance of Effect
<b>Cumulative - Operation and Maintenance</b>				
<b>Landscape Character Types / Units</b>				
Farmed Lowland Plain LCT	Medium	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)
Sandy Beaches and Dune LCT	Medium-high / Medium	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium Significant (moderate)
Cliffs and Sheltered Cliffs and Bay LCT	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium Significant (moderate)
Sweeping Moorland and Flows LCT	Medium-high / Medium / Medium- low	Medium / Medium-low / Low Significant (moderate) out to 13 km Not significant in remaining parts	Medium / Medium-low / Low Significant (moderate) out to approximately 10 km Not significant in remaining parts	Medium Significant (moderate) out to approximately 10 km
Coastal Crofts and Small Farms LCT	Medium-high	Limited potential for significant cumulative effects	Medium Significant (moderate)	Medium Significant (moderate)
<b>Local Coastal Character Areas</b>				
LCCA 47a Crosskirk Bay to White Geos	Medium	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)

Receptors	Sensitivity	Scenario 1 Magnitude of Change / Significance of Effect	Scenario 2 Magnitude of Change / Significance of Effect	Scenario 3 Magnitude of Change / Significance of Effect
LCCA 47b White Geos to Sandside	Medium	Medium-low Not significant (moderate/minor)	Limited potential for significant cumulative effects	Medium Not significant (moderate)
LCCA 47c Sandside Head to Leac Chailein	Medium-high	Limited potential for significant cumulative effects	Medium Significant (moderate)	Medium Significant (moderate)
LCA 47d Leac Chailein to Rhubha Bhra	Medium-high	Limited potential for significant cumulative effects	Medium Significant (moderate)	Medium Significant (moderate)
LCCA 46a Holborn Head to Long Rock	Medium	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium-low Not significant (moderate/minor)
LCCA 46b Long Rock to Crosskirk Bay	Medium	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium-low Not significant (moderate/minor)
LCCA 45a Donald Gear's Geo to Point Ness	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low Not significant(moderate/minor)
LCCA 44f Easter Head to Donald Gear's Geo	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium-low Not significant (moderate/minor)
Rubha Bhra to Strathy Bay	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Medium Significant (moderate)
Strathy Bay to Strathy Point	Medium-high	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Medium Significant (moderate)

Receptors	Sensitivity	Scenario 1 Magnitude of Change / Significance of Effect	Scenario 2 Magnitude of Change / Significance of Effect	Scenario 3 Magnitude of Change / Significance of Effect
<b>Landscape Designations</b>				
Kyle of Tongue NSA	High	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)
Hoy and West Mainland NSA	High	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)
Farr Bay, Strathy and Portskerra SLA	Medium-high	Low Not significant	Medium Significant (moderate) – coastal parts out to approximately 13 km Medium-low / low Not significant (moderate/minor) – all remaining parts	Medium Significant (moderate) – coastal parts out to approximately 13 km Medium-low / low Not significant (moderate/minor) – all remaining parts
Dunnet Head SLA	Medium-high	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)
East Halladale Flows WLA	Medium-high	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)
Hoy WLA	Medium-high	Low	Low	Low Not significant (moderate/minor)

Receptors	Sensitivity	Scenario 1 Magnitude of Change / Significance of Effect	Scenario 2 Magnitude of Change / Significance of Effect	Scenario 3 Magnitude of Change / Significance of Effect
		Not significant (moderate/minor)	Not significant (moderate/minor)	
<b>Representative Viewpoints</b>				
1 Beinn Ratha	Medium-high	Medium Significant (moderate)	Medium Significant (moderate)	Medium Significant (moderate)
2 Strathy Point Car Park	Medium-high	Low Not significant (moderate/minor)	Medium-low Not significant (moderate)	Medium Significant (moderate)
3 Portskerra/Melvich	Medium-high	Limited potential for significant cumulative effects	Medium Significant (moderate)	Medium Significant (moderate)
4 Drum Holliston Car Park	Medium-high	Medium Significant (moderate)	Medium Significant (moderate)	Medium Significant (moderate)
5 Sandside Headland	Medium	Medium Significant (moderate)	Medium Significant (moderate)	Medium Significant (moderate)
6 St Mary's Chapel, Forss	Medium-high	Limited potential for significant cumulative effects	Medium-low Not significant (moderate)	Medium-low Not significant (moderate)
7 Dunnet Head	Medium-high	Low Not significant (moderate/minor)	Low Not significant (moderate/minor)	Medium-low Not significant (moderate)
8 Scrabster – Stromness Ferry	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low



Receptors	Sensitivity	Scenario 1 Magnitude of Change / Significance of Effect	Scenario 2 Magnitude of Change / Significance of Effect	Scenario 3 Magnitude of Change / Significance of Effect
				Not significant (moderate/minor)
9 Old Man of Hoy	High	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low Not significant (moderate/minor)
10 A836 East of Forss	Medium-high Medium	Medium-low Not significant (moderate)	Medium-low Not significant (moderate)	Medium-low Not significant (moderate)
11 Ben Griam Beg	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects
12 Ben Loyal	High	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects
13 A' Mhoine	High	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low Not significant (moderate/minor)
14 Ben Dorrery	Medium	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)	Medium-low Not significant (moderate/minor)
15 Ward Hill, Hoy	High	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low Not significant (moderate/minor)
16 Tor Ness, Hoy	Medium-high	Limited potential for significant cumulative effects	Limited potential for significant cumulative effects	Low Not significant (moderate/minor)
<b>Principal Visual Receptors</b>				
A836 eastbound	Medium-high / medium/ medium-low	Medium	Medium	Medium

Receptors	Sensitivity	Scenario 1 Magnitude of Change / Significance of Effect	Scenario 2 Magnitude of Change / Significance of Effect	Scenario 3 Magnitude of Change / Significance of Effect
		Significant – Drum Hollistan to Isauld Medium-low / low Not significant – all remaining sections	Significant –Melvich to Isauld Medium-low / low Not significant – all remaining sections	Significant –Melvich to Isauld Medium-low / low Not significant – all remaining sections
A836 westbound	Medium-high / medium/ medium-low	Medium Significant – Forss to Drum Hollistan Medium-low / low Not significant – all remaining sections	Medium Significant – Forss to Drum Hollistan Medium-low / low Not significant – all remaining sections	Medium Significant – Forss to Drum Hollistan Medium-low / low Not significant – all remaining sections
<b>Cumulative – Construction and Decommissioning</b>				
The residual cumulative effects arising as a result of the construction and decommissioning of the Offshore Development are assessed as being of the same magnitude and significance on all coastal, landscape and visual receptors as those arising due to their operation and maintenance cumulative effects.				

## 16.15 References

- Bureau of Ocean Energy Management (2013). Offshore Wind Turbine Visibility and Visual Impact Threshold Distance Study.
- Council for the Protection of Rural England (CPRE) (2016). England's Light Pollution and Dark Skies.
- IEMA (2015). Environmental Impact Assessment Guidance to Shaping Quality Development.
- IEMA (2017). Delivering Proportionate EIA. A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice.
- The Highland Council (2016). Visualisation Standards for Wind Energy Developments.
- The Highland Council (2012). The Highland wide Local Development Plan.
- The Highland Council (2018). Caithness and Sutherland Local Development Plan.
- The Highland Council (2011). Assessment of Highland Special Landscape Areas.
- Landscape Institute and IEMA (2013). Guidelines for the Assessment of Landscape and Visual Impacts: Third Edition (GLVIA3).
- Landscape Institute (2019). Visual Representation of Development Proposals.
- Marine Management Organisation (2019). An Approach to Seascape Sensitivity Assessment.
- The Met Office (2000). The Met Office Observer's Handbook.
- The Met Office, Visibility Definitions. Available at <https://www.metoffice.gov.uk/services/data/datapoint/code-definitions> [Accessed 27/07/2022].
- NatureScot, Landscape Character Assessment. Available at: <https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions> [Accessed 27/07/2022].
- NatureScot (2020). Assessing Impacts on Wild Land Areas – technical guidance.
- NatureScot (2021). Guidance – Assessing the cumulative landscape and visual impact of onshore wind energy development.
- Orkney Islands Council (2017). Orkney Local Development Plan 2017.
- Planning Inspectorate (2018). Advice Note Nine: Rochdale Envelope.
- Renewable UK (2013). Cumulative Impact Assessment Guidelines. Guiding Principles for Cumulative Impacts Assessment in Offshore Windfarms.
- Robert G. Sullivan, Leslie B. Kirchler, Jackson Cothren, Snow L. Winters (2012). Offshore Wind Turbine Visibility and Visual impact Threshold Distances.
- Scottish Government (2017) The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.
- Scottish Government (2021). Draft National Planning Framework 4.
- Scottish Government (2020). Scottish Planning Policy.
- Scottish Government (2022). Guidance for Applicants on using the design envelope for applications under Section 36 of the Electricity Act 1989.
- Scottish Natural Heritage (2017). Visual Representation of Wind Farms, Guidance (Version 2.2).
- Scottish Natural Heritage (2010). Scottish Natural Heritage Commissioned Report No. 374 The special qualities of the National Scenic Areas.
- Scottish Natural Heritage (2016). Coastal Character Assessment: Orkney and North Caithness.

Scottish Natural Heritage (2018). Guidance Note – Coastal Character Assessment Version 1a.

Scottish Natural Heritage (2017). Wild Land Description - East Halladale Flows.

Scottish Natural Heritage (2018-2019). Draft Guidance for Assessing the Effects on Special Landscape Qualities.

Scottish Natural Heritage (2017). Wild Land Description – Hoy.

Sustrans, National Cycle Networks. Available at: <https://www.sustrans.org.uk/national-cycle-network/>. [Accessed 27/07/2022].

UK Government (2011) UK Marine Policy Statement.

University of Newcastle (2002) Visual Assessment of Windfarm Best Practice SNH Commissioned Report F01AA303A.