Offshore Wind Power Limited

West of Orkney Windfarm Offshore EIA Report

Volume 1, Chapter 18 – Seascape, Landscape and Visual Assessment

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West of Orkney Windfarm

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18 SEASCAPE LANDSCAPE AND VISUAL IMPACT ASSESSMENT

Chapter summary

This chapter of the Offshore Environmental Impact Assessment (EIA) Report assesses the likely significant effects that may be experienced as a result of the offshore Project on seascape, landscape and visual amenity. This includes direct, indirect, whole Project assessment, cumulative, inter-related effects, inter-relationships, and transboundary effects.

The Seascape, Landscape and Visual Impact Assessment (SLVIA) identifies and assesses the significance of changes resulting from the construction, operation and decommissioning of the offshore Project, but focuses on the operation and maintenance stage, as this is when the significant effects are most likely to arise over the long-term. The SLVIA is carried out in relation to seascape character, landscape character and designated landscapes as environmental resources in their own right, and on people's views and visual amenity.

The Sectoral Marine Plan (SMP) for Offshore Wind published by the Scottish Government identified areas for potential offshore wind development and was accompanied by design guidance issued by NatureScot (at the time Scottish Natural Heritage (SNH)). The Option Agreement Area (OAA) selected by OWPL does not encompass the entire area identified by the Scottish Government. This has helped minimise the overlap of key sensitive areas, highlighted by NatureScot and maintain sight lines between Orkney and mainland Scotland, in line with advice from The Highland Council (THC).

The SLVIA has assessed the worst case scenario which includes the maximum height of the Wind Turbine Generators (WTGs) (at approximately 360 metres (m) to blade tip height) and a maximum number of WTGs (125) sited along the Option Agreement Area's (OAA) perimeter with the greatest density applied to the largest WTGs.

The offshore Project would be introduced as a new element into a vast seascape in the North Atlantic, located approximately 23 kilometres (km) from the north coast of Scotland to the south and approximately 28 km from Orkney to the east. The Zone of Theoretical Visibility (ZTV) of the offshore Project is mainly limited to the sea and along the coastal parts of Caithness and Sutherland, and Orkney. Although theoretical visibility would also occur further inland, this would largely be from elevated locations affording panoramic views within the 60 km study area, and the offshore Project would be visible only in very clear conditions.

Significant effects on seascape / coastal character would be limited to parts of the Kyle of Tongue within the Kyles and Sea Lochs seascape character in Sutherland and the Rora Head and St John's Head Regional Coastal Character Area (RCCA) in Orkney. There would be no significant effects on any other seascape / coastal character areas.

Significant effects on landscape character would be limited to parts of the Sandy Beaches and Dunes Landscape Character Type (LCT) in Sutherland, and the Rugged Hills and Enclosed Bays LCTs which overlap with the Road Head and St John's Head RCCA above. There would be no significant effects on any other LCT.

The offshore Project is located outwith designated landscape or seascape and there would be no significant effects on the Special Landscape Qualities (SLQ) or integrity of the Hoy and West Mainland National Scenic Area (NSA). There would, however, be significant indirect effects on two SLQs of the Kyle of Tongue NSA – "Scale, from domestic to monumental", and "rich variety of coastal scenery". The remainder of the SLQs and overall integrity of the Kyle of Tongue NSA would not be significantly affected by the offshore Project. There would be no significant effects on any Highland Special Landscape Areas (SLAs) or Wild Land Areas (WLAs).

The viewpoint assessment indicates that significant visual effects are likely to occur within a radius of approximately 34 km from the offshore Project as indicated by viewpoints 1, 4, 5, 6, 7, 10, 19, 20, 21 and 22.

Significant visual effects (including cumulative effects) would be limited to parts of the small settlements of Durness (including core paths, Sango Bay and campsite), Midfield to Midtown (including core paths and Talmine campsite),

Chapter summary (contd.)

Skullomie and Coldbackie (including core paths), Bettyhill (including core paths), Kirtomy (including core paths), Armadale (including core paths), Lednagullin, Portskerra, Melvich (including core paths) and Crosskirk (including core paths) in Caithness and Sutherland. None of the remaining settlements would be significantly affected by the offshore Project.

Significant visual effects (including cumulative effects) would be experienced from short sections of the A838 and A836 which overlap with the North Coast 500 and Sustrans National Cycle Route 1 recreational routes on the Scottish mainland. Significant visual effects would also be experienced from a short section of the Scrabster to Stromness ferry route. The remaining transport routes in Sutherland and Caithness, and all routes in Orkney would not be significantly affected by the offshore Project.

Significant visual effects (including cumulative effects) would be experienced from parts of two core paths in Orkney including the path to the Old Man of Hoy, and the path along Rackwick Beach in Hoy. The remaining recreational routes would not be significantly affected by the offshore Project.

Significant visual effects (including cumulative effects) would also be experienced at seven visitor destinations (Faraid Head (viewpoint 1), Achininiver Beach (viewpoint 4), Torrisdale Bay (viewpoint 5), Strathy Point (viewpoint 6), Melvich Beach (viewpoint 7) and Armadale Bay) in Caithness and Sutherland, and two visitor destinations (Rackwick Bay and the Old Man of Hoy (represented by viewpoints 21 and 22) in Orkney. The remaining visitor destinations would not be significantly affected by the offshore Project.

A Night-time Lighting Assessment has been undertaken in the Offshore EIA Report, Supporting Study (SS) 18: SLVIA Night-time Lighting Assessment. Significant night-time effects would occur on a small number of receptors as a result of the 2000 candela (cd) perimeter lights during periods of poor visibility (<5 km), which is likely to occur for 6% of the time.

The SLVIA has concluded significant effects on several coastal and visual receptors along the Sutherland, Caithness and Orkney coastline through the worst case scenario layout. The layout assessed, represents the maximum effect in terms of the proximity, scale, spread, density and prominence of the WTGs from receptors around the coastline. In reality, WTGs will not be present in at both the size and in the numbers assessed, nor present along all the southern and eastern boundaries of the OAA (i.e. nearest to the coast), therefore reducing the magnitude of impact from that assessed at some viewpoints based on the final WTG layout.

It is acknowledged that traditional methods of landscape and visual mitigation, such as screen planting, are ineffective for offshore windfarm development, therefore the reduction of potential effects will be through detailed layout design. As such secondary mitigation will be implemented in the form of the iterative design process during the post-consent development of the array layout, including consideration of key SLVIA receptors as well as other constraints such as shipping and navigation. Following consultation, the final design of the offshore Project will be produced and secured within the Development Specification and Layout Plan (DSLP) as required by condition of consent.

The SLVIA has taken account of guidance set out by NatureScot and in the Onshore Wind Energy Supplementary Guidance (OWESG) and the requirements of THC's and Orkney Islands Council's (OIC's) Local Development Plan (LDP) policies (and National Planning Framework 4 (NPF4) and other regional policies) in respect of seascape, landscape, visual and cumulative effects.

Policy 11 (e) of NPF4 states that *'In addition, project design and mitigation will demonstrate how the following impacts are addressed: ii. significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/or appropriate design mitigation has been applied, they will generally be considered to be acceptable.'*

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18.1 Introduction

This chapter of the Offshore Environmental Impact Assessment (EIA) Report presents the results of the assessment of the likely significant effects of the West of Orkney Offshore Windfarm (offshore Project) with respect to seascape, landscape and visual amenity. It should be read in conjunction with chapter 5: Project description.

The chapter provides an overview of the existing environment, by defining the existing seascape, landscape and visual baseline environments; assessing their sensitivity to change; describing the key seascape, landscape and visual related aspects of the offshore Project; describing the nature of the potential change upon the seascape, landscape and visual environments; and assessing the magnitude and significance of the changes for the construction, operation and decommissioning stages. Potential cumulative effects with other relevant developments are also assessed with the developments which form part of the baseline and with developments in planning which would form the future baseline. Transboundary effects have also been considered.

This chapter has been written and reviewed by three chartered landscape architects at WSP, with the assessment undertaken with specific reference to the relevant legislation and best practice guidance. The assessment methodology draws upon the established *Guidelines for Landscape and Visual Impact Assessment*, Third Edition (Landscape Institute and Institute of Environmental Management and Assessment (IEMA), 2013) and other best practice guidance.

Table 18-1 below provides a list of all the supporting studies which relate to and should be read in conjunction with this chapter. All supporting studies are appended to the Offshore EIA Report and issued on the accompanying Universal Serial Bus (USB).

Table 18-1 Supporting studies

DETAILS OF STUDY	LOCATIONS OF SUPPORTING STUDY
Viewpoints Assessment	Offshore EIA Report, Supporting Study 16 (SS) 16: SLVIA Viewpoints Assessment
ZTV and Visualisations Methodology	Offshore EIA Report, Supporting Study 17 (SS) 17: SLVIA ZTV and Visualisations Methodology
Night-time Lighting Assessment	Offshore EIA Report, Supporting Study 18 (SS) 18: SLVIA Night-time Lighting Assessment
SLVIA Baseline Figures: OAA Location; Coastal Character Areas; Landscape Character Types (LCT); Transport and Recreational Routes; ZTVs and Cumulative ZTVs (CZTV), Sequential Route Assessment: Figures 18.1 -18.21	Offshore EIA Report, Supporting Study 19 (SS) 19: SLVIA Figures

DETAILS OF STUDY	LOCATIONS OF SUPPORTING STUDY
SLVIA Viewpoints Visualisations including baseline photographs, wirelines and photomontages in accordance with NatureScot and THC standards: **SLVIA: Figures 18.VP1 -18.VP28**	Offshore EIA Report, Supporting Study 20 (SS) 20: SLVIA Viewpoints Visualisations

The impact assessment presented herein draws upon information presented within other impact assessments within this Offshore EIA report including chapter 8: Marine physical and coastal processes – which assess changes to coastal landfall morphology, chapter 16: Marine archaeology and cultural heritage – which assesses the impact of setting of cultural heritage features. Impacts on the setting of offshore cultural heritage features could indirectly impact the offshore views from the same features and Onshore EIA chapter 17: Landscape and visual impact assessment – for impacts on the inter-relationship with onshore landscape and visual effects and chapter 19: Socioeconomics which assesses the effect on tourism during construction and operation and maintenance.

Where information is used to inform the impact assessment, reference to the relevant chapter is given. Equally, the seascape, landscape and visual impact assessment also informs other impact assessments. This interaction between the impacts assessed within different topic-specific chapters on a receptor is defined as an 'inter-relationship'. The chapters and impacts related to the assessment of potential effects on seascape, landscape and visual are provided in Table 18-2.

Table 18-2 Seascape, landscape and visual inter-relationships

CHAPTER	IMPACT	DESCRIPTION
Marine physical and coastal processes (chapter 8, Offshore EIA Report)	Change to coastal landfall morphology	Changes to coastal landfall morphology during construction can result in visual changes to the coast with consequences to seascape, landscape and visual receptors. Change to coastal landfall morphology is considered in chapter 8: Marine physical and coastal processes.
Marine archaeology and cultural heritage (chapter 16, Offshore EIA Report)	Impact of setting of cultural heritage features.	Impacts on the setting of offshore cultural heritage features could indirectly impact the offshore views from the same features.
Socioeconomics (chapter 19, Offshore EIA report)	Effect on tourism during construction and operation and maintenance.	Impacts on SLVIA in relation to visual receptors such as visitor destinations could have subsequent impacts on socioeconomics if they affect the level of tourism.

CHAPTER	IMPACT	DESCRIPTION
Landscape and Visual Impact Assessment (chapter 17, Onshore EIA Report)	Impacts on landscape and visual receptors.	Impacts on the inter-relationship with onshore landscape and visual effects.

18.2 Legislation, policy and guidance

Over and above the legislation presented in chapter 3: Planning policy and legislative context, the following legislation, policy and guidance are relevant to the assessment of impacts from the offshore Project on seascape, landscape and visual receptors.

18.2.1 Legislation

18.2.1.1 European Landscape Convention

At the highest level, the European Landscape Convention (ELC) seeks to "promote landscape protection, management and planning, and to organise European co-operation on landscape issues" (Ch. 1 Art. 3) and encompasses "the entire territory of the Parties and covers natural, rural, urban and peri-urban areas. It includes land, inland water and marine areas. It concerns landscapes that might be considered outstanding as well as every day or degraded landscapes." (Ch. 1 Art. 2), and therefore considers that all landscapes are important, not just the outstanding but also the everyday landscapes where most people live, work and spend much of their time.

The Scottish Government is committed to implementing the principles of the ELC[1], which applies an 'all landscapes approach' and although it does not specifically define seascape this should be taken as meaning 'landscapes with views of the coast or sea and the adjacent marine environment with cultural, historical and archaeological links to each other'.

18.2.1.2 The Electricity Act

The Electricity Act (1989) sets out the desire of preserving natural beauty and providing reasonable mitigation. It is considered that natural beauty should be given a broad scope and would include seascape and coastal landscape in accordance with the ELC.

Schedule 9 of the Act relates to Reservation of Amenity in Scotland and states:

[1] *The ELC is a convention of the Council of Europe, not the EU. Therefore, Brexit does not affect the status of this convention. This legislation has been ratified by Turkey, Ukraine, Norway, Georgia.*

'In formulating any relevant proposals, a licence holder or a person authorised by an exemption to generate, distribute, supply or participate in the transmission of electricity:

(a) shall have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and

(b) shall do what he reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.'

18.2.2 National policy

The SLVIA process has taken account of national, regional and local planning requirements in relation to windfarm development, as described chapter 3: Planning policy and legislative context.

A full review of the relevance of the National Planning Framework 4 (NPF 4) (2023) and National Policy Statement (NPS) EN-3 (2011) is provided in chapter 3: Planning policy and legislative context. A summary in relation to the SLVIA is provided below.

18.2.2.1 National Planning Framework 4 (NPF 4) 2023

The Scottish Government's Local Government and Housing Directorate adopted the fourth iteration of the National Planning Framework in February 2023, which sets out the spatial principles, regional priorities, national developments and national planning policy for Scotland.

Policies contained under the Sustainable Places heading note the requirement to tackle issues resulting from the current climate change crisis, addressing the need for climate adaptive measures. Under the policy heading Energy, the NPF 4 notes the intent to *'encourage, promote and facilitate all forms of renewable energy development onshore and offshore.'* Which is further elaborated upon under Policy 11. It is noted that where potential landscape and visual impacts associated with proposed developments are likely to occur, these are to be assessed against Policy 4 of the NPF 4 which addresses Natural Places and the protection of the environment and outlines the requirements for impact assessments where significant impacts may be experienced.

Specific to landscape and visual effects, Policy 11 (e) states that *'In addition, project design and mitigation will demonstrate how the following impacts are addressed:*

ii. significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/or appropriate design mitigation has been applied, they will generally be considered to be acceptable.'

In relation to wild land, Policy 4(g) states that '*Buffer zones around wild land will not be applied, and effects of development outwith wild land areas will not be a significant consideration.'*

18.2.2.2 National Policy Statement (NPS) EN-3 (2011)

The NPS for Renewable Energy Infrastructure (EN-3) was published by the Department of Energy and Climate Change in July 2011 and provides the overarching policy for determining planning decisions for energy infrastructure throughout the United Kingdom and therefore may be a relevant consideration in planning decisions in Scotland[2].

Under Section 2.6 the NPS sets out considerations for Offshore Wind Farm development. Paragraphs 2.6.198 to 2.6.210 highlight the requirements relating to Seascape and Visual Effects. The policy outlines the required assessment approach for SVIA and mitigation approaches, noting the limited possibility for mitigation options to seek to result the scale of WTGs but instead to design appropriately to minimise visual impact and harm.

18.2.3 Marine policy

18.2.3.1 UK Marine Policy Statement

The UK Marine Policy Statement (2011) sets out high-level objectives for the marine space, including achieving a sustainable marine economy and identifies a wide range of relevant marine uses. It requires use of the marine environment and its resources to maximise sustainable activity, prosperity and opportunities for all.

The Policy Statement requires that activities and development in marine and coastal areas may give rise to seascape effects and recommends that marine planning authorities should consider potential effects at a strategic level, liaising with relevant planning authorities where necessary, and utilising seascape and landscape character assessment. It also recommends that the authorities should have particular regard to development within, or close to any nationally designated areas.

Requirements for the use of the marine environment is spatially planned where appropriate and based on ecosystems approach which takes account of climate change and recognises the protection and management needs of marine cultural heritage according to its significance.

18.2.3.2 Scotland's National Marine Plan (NMP)

The NMP[3] covers both Scottish inshore waters (out to 12 nautical miles) and offshore waters (12 to 200 nautical miles). The NMP provides a framework for managing all developments, activities and interests in or affecting Scottish Waters (territorial and offshore waters). Adopted in March 2015, the NMP sets out high-level objectives, general policies and sectoral policies.

- GEN 7 Landscape/seascape: Marine planners and decision makers should ensure that development and use of the marine environment take seascape, landscape and visual impacts into account.

[2] *Revised version of NPS EN-3 was consulted upon in 2023.*

[3] *The Scottish Government, March 2015, NMP A Single Framework for Managing Our Seas, available at www.gov.scot*

- (Paragraph 4.26) Landscape and seascape[4] are important elements of people's enjoyment of the coastal and marine environment. They are also important as the setting for coastal communities, contributing to sense of place, economic livelihoods and quality of life. Scotland's varied coastal landscapes are internationally renowned and support a valuable recreation and tourism sector.
- (4.27) The Scottish Government is committed to implementing the principles of the European Landscape Convention which includes seascapes and applies an 'all landscapes approach' that addresses developed, altered and cultural landscapes as well as more natural scenic areas. This does not preclude development or change but recommends that it is carried out appropriately for the area's landscape character and visual amenity.
- (4.28) Development and use that affect National Scenic Areas (NSAs), National Parks and World Heritage Sites (WHS) should only be permitted where:
  - It will not adversely affect the integrity of the area or its special qualities for which it has been designated; or
  - Any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance.
- (4.29) In making these judgements, planners and decision makers should have regard to the qualities of the location in question, including any designation[5]. More generally, the siting and design of a development should take account of the local landscape/seascape character and quality. Potential effects on landscapes and seascapes, including cumulative effects should be considered and developers should seek to minimise adverse impacts through careful planning and design, considering the services which the natural environment is providing and maximising the potential for enhancement.
- (4.30) Where development has the potential to impact on wild land,[6] locally designated areas, largely undeveloped coast, areas subject to significant constraints or largely unspoiled areas of coast, Scottish Planning Policy[7] should be considered when planning for, and taking decisions, which may impact on such areas.

Other relevant policies include:

- GEN 1 supports sustainable developments which provide economic benefit to Scottish communities and social benefits;
- GEN 4 emphasises the need for co-existence between development sectors and activities and requires cumulative impacts to be addressed; and
- REC & TOURISM 5 sets out requirement to support enhancements to the aesthetic qualities, coastal character and wildlife experience.

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[4] *Seascape should be taken as meaning 'landscapes with views of the coast or seas, and the adjacent marine environment with cultural, historical and archaeological links with each other'. UK Marine Policy Statement. (paragraph 2.6.5.1)*

[5] *Scottish Natural Heritage. http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/nationaldesignations/nsa/special-qualities/*

[6] *Scottish Natural Heritage. http://www.snh.gov.uk/protecting-scotlands-nature/looking-after-landscapes/ landscape-policy-and-guidance/wild-land/*

[7] *Scottish Planning Policy – paragraph 200 and 215. (See footnote 19)*

18.2.3.3 SEA of sectoral marine plan for offshore wind energy

The Strategic Environmental Assessment (SEA) Environmental Report (2019)[8] assessed 17 new Draft Plan Option (DPO) areas potentially suitable for wind energy generation in Scotland in order to provide guidance and support to the Crown Estate Scotland for commercial scale offshore wind technologies in Scottish Waters. The Project is located within the N1 Plan Option (PO). For the N1 PO, the SEA states that there is potential for significant negative effects on bird populations from the Sule Skerry and Sule Stack Special Protection Area (SPA) and on navigational safety (Table NTS3 'Summary of likely negative significant effects per DPO'). The SEA does not identify any preliminary seascape / visual effects in relation to the N1 PO, as it does for example in relation to DPOs such as SW1 and W1, N4 and NE5.

NatureScot provided their Landscape and Visual Impact appraisal of each of the DPO areas and the opportunities for mitigating these, through their, Assessment of Potential Seascape, Landscape and Visual Impacts and Provision of Design Guidance, in their consultation response in 2020 (SNH, 2020b).

18.2.4 Regional policy

18.2.4.1 Orkney Islands Regional Marine Plan: Consultation draft

Orkney Islands Council (OIC) has prepared the Orkney Islands Regional Marine Plan: Consultation Draft (OIRMP: Consultation Draft) and supporting information on behalf of Scottish Ministers. This draft Plan was endorsed by the Council and submitted to Marine Scotland[9] in December 2022 for approval by Scottish Ministers for public consultation.

The purpose of the Orkney Islands Regional Marine Plan is to provide a statutory policy framework for public authorities, including regulators, planners and other decision-makers to make decisions on sustainable development and activities. Public authorities are required to take any authorisation or enforcement decision in accordance with the appropriate regional marine plan.

The OIRMP: Consultation Draft contains a vision, aim and objectives, general policies on social, economic and environmental matters, and sector policies for Orkney's key marine economic sectors. These policies are for and in connection with the sustainable development of the Orkney Islands marine region, which extends from Mean High Water Springs (MHWS) to the 12 nautical mile (nm) limit, in accordance with the Marine (Scotland) Act 2010[10].

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[8] *Scottish Government, December 2019, SEA of Sectoral Marine Plan for Offshore Wind Energy Strategic Environmental Assessment Environmental Report*

[9] *Marine Scotland have since been renamed Marine Directorate*

[10] *https://www.orkney.gov.uk/Service-Directory/D/orkney-islands-regional-marine-plan.htm#:~:text=It%20is%20anticipated%20that%20the,be%20widely%20publicised%20when%20available.*

The most recent planning update for this draft states that the Orkney Islands Regional Marine Plan: Consultation Draft went to the OIC committee process for endorsement in November 2022 and was sent on to Marine Scotland in December 2022 for approval by Scottish Ministers for public consultation.

18.2.4.2 Pilot Pentland Firth and Orkney Waters Marine Spatial Plan

The Pentland Firth and Orkney Waters Marine Spatial Plan 2016 (PFOW MSP) [11] put in place a planning policy framework in advance of statutory regional marine planning to support sustainable decision making on marine use and management.

The Plan area includes the intertidal coastline of Orkney, Sule Skerry and Sule Stack, Stroma and the north coast of mainland Scotland from Duncansby Head along the Caithness and Sutherland coast to Cape Wrath. This area encompasses the full extent of the Orkney and North Coast Scottish Marine Regions (see Map 1: Plan Area, PFOW MSP). The Plan area features a wide range of landscapes and seascapes, which are fundamental elements of people's enjoyment of the coastal and marine environment. The quality of this coastal landscape has been recognised by national and local designations (see Map 6: Protected areas designated for their special landscape value and nationally important WLAs, PFOW MSP).

The landscape policy of the plan aims to maintain and enhance the distinctive character in Orkney and the north Caithness and Sutherland coast, whilst facilitating positive change.

THC and OIC have adopted the PFOW Marine Spatial Plan as non-statutory planning guidance and Marine Directorate – Licensing Operations Team (MD-LOT) will also use the plan when considering Marine Licence and Section 36 Consent applications in the Pentland Firth and Orkney waters area (Scottish Government, 2016).

18.2.4.2.1 General Policy 4D: Landscape and seascape

The siting and design of any offshore project(s) and/or activities should demonstrate how the proposal takes into account visual impact and existing character and quality of landscape and seascape.

Development(s) and/or activities that affect NSAs and Special Landscape Areas (SLAs) should only be permitted where:

- They will not adversely affect the integrity of the area or its special qualities for which it has been designated; or
- Any significant adverse effects are clearly outweighed by social, environmental, or economic benefits of national importance for NSAs and local importance for SLAs.

[11] *Marine Scotland, The Scottish Government, 2016, Pilot Pentland Firth and Orkney Waters Marine Spatial Plan, Prepared by the Pilot Pentland Firth and Orkney Waters Working Group Available at: https://www.gov.scot/publications/pilot-pentland-firth-orkney-waters-marine-spatial-plan/*

NPF 4 should be considered in both the planning and decision-making stages.

It is stated in para 198 PFOW MSP that for the PFOW area, the landscape and coastal character are assessed at a regional scale within the Orkney landscape character assessment (1988) and Caithness and Sutherland landscape character assessment (1998) reports and therefore this characterisation work can be used as an initial baseline to inform judgements on the capacity for the existing landscape and seascape to accommodate new development proposals which should be assessed for every offshore project. And therefore, this SLVIA takes cognisance of these studies.

18.2.5 Local policy

18.2.5.1 The Highland-wide Local Development Plan (HwLDP) 2012

The Highland-wide Local Development Plan (HwLDP) was prepared by THC and published in April 2012. The HwLDP was produced to provide guidance and key policy for development throughout THC area.

Within Chapter 6 - Caithness and Sutherland, THC outline a spatial strategy and vision for the Caithness and Sutherland area, allocating the land to the north of Caithness and Betty Hill as an area for potential offshore renewable energy.

Under Chapter 21 - Safeguarding the Environment, Section 21.7 notes specific policy relating to landscape with regard to development within THC area. Policy 61 – Landscape, states:

'New developments should be designed to reflect the landscape characteristics and special qualities identified in the Landscape Character Assessment of the area in which they are proposed. This will include consideration of the appropriate scale, form, pattern and construction materials, as well as the potential cumulative effect of developments where this may be an issue. The Council would wish to encourage those undertaking development to include measures to enhance the landscape characteristics of the area. This will apply particularly where the condition of the landscape characteristics has deteriorated to such an extent that there has been a loss of landscape quality or distinctive sense of place. In the assessment of new developments, the Council will take account of Landscape Character Assessments, Landscape Capacity Studies and its supplementary guidance on Siting and Design and Sustainable Design, together with any other relevant design guidance.'

Chapter 22 – Sustainable Development and Climate Change outlines policy relating to Renewable Energy Developments throughout the HwLDP area. Policy 67 Renewable Energy Developments provides guidance for the design and siting of proposed renewable energy development and outlines the requirement for assessment against potential landscape and visual impacts upon the natural and built environment and historic assets.

18.2.5.2 Caithness and Sutherland Local Development Plan (CaSPlan) (2018)

The Caithness and Sutherland LDP (CaSPlan) was prepared by THC and adopted in August 2018. The CaSPlan provides guidance for development through Caithness and Sutherland and outlines the spatial strategy for development for the next 10-20 years.

Paragraph 82 under the heading Climate Change, outlines the substantial provision of existing renewable energy infrastructure throughout the Caithness and Sutherland area. The CaSPlan principally outlines opportunities for residential expansion and employment development. However, mapping identifying the proposed spatial strategies outlines the opportunities for offshore renewable energy developments off the northern coast of Caithness.

18.2.5.3 THC Onshore Wind Energy Supplementary Guidance

The Onshore Wind Energy Supplementary Guidance (OWESG) November 2016 was prepared by THC and provides a suite of supplementary guidance documents including:

- OWESG, November 2016; and
- Addendum Supplementary Guidance: 'Part 2b', December 2017.

Chapter 4 sets out the Key Development Plan Considerations for Wind Farm developments, including landscape and visual effects and outlines key considerations for Wind Farm assessment. The chapter sets out key criteria to be assessed in landscape and visual terms and outlines the Council's key considerations with regard to the mitigation and assessment of wind farm developments. An assessment of the offshore Project against the 10 Criteria is set out within the Marine Planning Statement.

Within Part 2b of the OWESG document a Landscape Sensitivity Study and Caithness Strategic Capacity study is included, outlining key views and identified routes throughout Caithness for consideration within development proposals and associated assessments.

18.2.5.4 Orkney Local Development Plan (2017 – 2022)

The Orkney LDP was prepared by OIC and adopted in April 2017. The LDP sets out the vision and spatial strategy for the district for a period of 10-20 years.

Policy 7 Energy notes that renewable and low carbon technologies are supported throughout the area and identifies core policies relating to developments of this nature. Item C provides policy relating to 'All Renewables and Low Carbon Energy Developments' and identifies the requirement for assessment where developments are considered likely to result in potentially significant impacts. Policy 7 C (i) states:

'The development of renewable and low carbon energy schemes, including the onshore infrastructure and/or buildings required for offshore marine renewable energy developments, and related transmission infrastructure, will be supported where it has been demonstrated that the proposal will not result in significant adverse effects on known constraints, either individually or cumulatively. Sufficient supporting information must be submitted with any planning application to enable a full assessment to be made of the likely effects of the development.'

Policy 7 D relates to Onshore Wind Farm applications and provides guidance for windfarm development throughout Orkney. As outlined within Policy 7 C it is identified that developments of all sizes and scales will require assessment to be undertaken for potentially significant adverse impacts upon the surrounding landscape.

Policy 9 relates to Natural Heritage and Landscape; Policy 9 G relates to landscape related matters and states:

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

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

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

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

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

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

18.2.6 Guidance documents

The assessment has been undertaken in accordance with the Landscape Institute and IEMA (2013) *Guidelines for Landscape and Visual Impact Assessment*, 3rd Edition (GLVIA3), and consideration has been taken of other technical guidance as listed below:

- Coastal (Seascape):
  - Guide to Best Practice in Seascape Assessment (Countryside Council for Wales 2001);
  - Guidance on the Assessment of the Impact of Offshore Wind Farms. Seascape and Visual Impact Report. (DTI, November 2005);
  - An assessment of the sensitivity and capacity of the Scottish seascape in relation to wind farms. Scottish Natural Heritage (SNH) Commissioned Report No. 103 (2005);
  - National Coastal Character Types (SNH, 2010a);
  - Coastal Character Assessment: Orkney and North Caithness (LUC, SNH, 2016)[12];
  - Guidance on Coastal Character Assessment (C. Anderson for SNH, 2018);
  - An Approach to Seascape Sensitivity Assessment (Marine Management Organisation, 2019); and
  - Guidance on Assessing the Impact on Coastal Landscape and Seascape (SNH, 2012).
- Landscape:
  - Guidelines for Landscape Character Assessment (Countryside Agency and Scottish Natural Heritage, 2002);

[12] *available at https://www.nature.scot/doc/coastal-character-assessment-orkney-and-north-caithness*

- Landscape Sensitivity Appraisal: Black Isle, Surrounding Hills and Moray Firth Coast, Caithness – Addendum Supplementary Guidance 'Part 2B' as part of Onshore Wind Energy Supplementary Guidance (2017)[13];
- Scotland's Landscape Character Assessment (SNH, 2019);
- Landscape Sensitivity Assessment Guidance (NatureScot, 2022b); and
- Technical Guidance Note 02/21 Assessing landscape value outside national designations (Landscape institute, 2021);

- Landscape Designations:
  - Identifying the Special Qualities of Scotland's National Scenic Areas Commissioned Report No.255 (SNH, 2007);
  - Special Qualities of the National Scenic Areas Report No.374 (SNH, 2010b);
  - Wild Land Area Map and Descriptions (SNH, 2014);
  - Guidance for Assessing the Effects on Special Landscape Qualities – Working Draft, (SNH, 9th November 2018);
  - Assessment of Highland Special Landscape Areas (THC 2011/2019); and
  - Assessing impacts on Wild Land Areas - technical guidance (SNH, 2020a (revised August 2023)).
- Cumulative Assessment:
  - Cumulative Impact Assessment Guidelines – Guiding Principles for Cumulative Impact Assessment in Offshore Wind Farms (RenewableUK , 2013); and
  - Assessing the Cumulative Landscape and Visual Impacts of Onshore Wind Energy Developments (NatureScot, 2021).
- Visualisations:
  - Visualisation Standards for Wind Energy Developments (THC, 2016b);
  - Visual Representation of Wind Farms Version 2.2 (SNH, 2017a); and
  - Visual Representation of Development Proposals: Earth Curvature, Technical Information Note 09/19 (LI 2019).
- Additional Baseline Resources / Guidance for specific aspects:
  - Visual Assessment of Windfarms Best Practice. Report F01AA303A (SNH, 2002);
  - Strategic Environmental Assessment (SEA) of the Offshore Renewable Energy Development Plan (OREDP) in the Republic of Ireland, Environmental Report Volume 2: Main Report (AECOM 2010);
  - Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance Stage 1- Ready reckoner of visual effects related to turbine size, Report No 315 (NRW 2019);
  - Orkney Islands Marine Region: State of the Environment Assessment (OIC, 2020);
  - General Pre-application and Scoping Advice for Onshore Wind Farms Guidance (NatureScot, 2022a);
  - 'Offshore Energy Strategic Environmental Assessment: Review and Update of Seascape and Visual Buffer study for Offshore Wind farms document' (White Consultants, 2020) (OESEA);
  - Guidance for applicants on using the design envelope for applications under Section 36 of the Electricity Act 1989 (Scottish Government, 2022); and

[13] *Addendum Supplementary Guidance: "Part 2B", December 2017 - being part of the Highland Strategic Capacity content of the suite: "Onshore Wind Energy Supplementary Guidance, November 2016 (with addendum, December 2017)". Available at: https://www.highland.gov.uk/directory_record/712079/onshore_wind_energy*

- Offshore Energy SEA 4: Environmental Report (BEIS, 2022).

- Siting and Design of windfarms:
  - Siting and Designing Wind Farms in the Landscape Guidance Version 3a (SNH, 2017b); and
  - SNH Assessment of Potential Seascape, Landscape and Visual Impacts and Provision of Design Guidance (SNH, 2020b)[14].

18.3 Scoping and consultation

Stakeholder consultation has been ongoing throughout the EIA and has played an important part in ensuring the scope of the baseline characterisation and impact assessment are appropriate with respect to the Project and the requirements of the regulators and their advisors.

The Scoping Report, which covered the onshore and offshore Project, was submitted to Scottish Ministers (via Marine Scotland - Licensing Operations Team (MS-LOT)) [15] THC on 1st March 2022[16], MS-LOT circulated the Scoping Report to consultees relevant to the offshore Project and a Scoping Opinion was received on 29th June 2022. Relevant comments from the Scoping Opinion and other consultation specific to 'SLVIA' are provided in Table 18-4 below, which provides a high-level response on how these comments have been addressed within the chapter.

Further consultation has been undertaken throughout the pre-application stage. Table 18-3 summarises the consultation activities carried out relevant to SLVIA.

Table 18-3 Consultation activities for 'SLVIA'

CONSULTEE AND TYPE OF CONSULTATION	DATE	SUMMARY
Consultation meetings		
NatureScot, THC and OIC	14th June 2022	To present and discuss the SLVIA approach including study areas, visualisations, viewpoint locations, cumulative sites and assessment and timescales.
NatureScot, THC and OIC	14th September 2022	To provide a Field Survey update and updated Viewpoints list and presentation of worst case design parameters and WTG layout principles for the SLVIA.

[14] This document sets out SNH's Landscape and Visual Impact appraisal of each of the ScotWind DPO areas.

[15] MS-LOT have since been renamed Marine Directorate – Licensing Operations Team (MD-LOT)

[16] The Scoping Report was also submitted to the Orkney Islands Council (OIC), as the scoping exercise included consideration of power export to the Flotta Hydrogen Hub, however, this scope is not covered in this Offshore EIA Report and will be subject to separate Marine Licence and onshore planning applications.

CONSULTEE AND TYPE OF CONSULTATION	DATE	SUMMARY
NatureScot, THC and OIC – email correspondence	30th September 2022	Email response to a memo summarising final viewpoint list, including clarifications and confirmations regarding night-time visualisation requirements.
NatureScot, THC and OIC – Written letter	14th December 2022	Memo and wirelines with faded WTG options alongside the blade tip, hub height and half hub height ZTVs and proposed cumulative windfarms for ZTV. Feedback on memo fed into the consultation meeting held in February 2023.
NatureScot, THC and OIC	15th February 2023	Further discussion of worst case scenario ZTVs, visualisation enhancement approach, initial visualisations and initial viewpoint assessment conclusions.
NatureScot, THC and OIC – Written letter	1st March 2023	Letter provided visualisation enhancement methodology and both enhanced and unenhanced viewpoints, with text on the assessment. In addition, previously agreed viewpoint list was included for reference.
NatureScot	5th April 2023	Presentation of worst case scenario and alternatives and discussion on presenting WTGs with sufficient contrast on visualisations. NatureScot confirmed acceptance of the worst case scenario.
THC	17th May 2023	Presentation of worst case scenario and alternatives and discussion on presenting WTGs with sufficient contrast on visualisations, and response to Scoping Opinion. THC confirmed acceptance of the worst case scenario.
NatureScot – email correspondence	17th May 2023	Memo to scope out the assessment of the WLAs and North West Sutherland NSA circulated to NatureScot. NatureScot responded and confirmed acceptance of the approach on 31st May 2023 as well as confirmation that the approach to the visualisations was appropriate.
NatureScot	23rd May 2023	Discussion on presentation of visualisations and rationale for scoping out a Wild Land Assessment. Feedback was provided as written correspondence in May 2023.

Table 18-4 Comments from the Scoping Opinion response relevant to SLVIA

CONSULTEE	COMMENT	RESPONSE
Scoping Opinion		
Scottish Ministers (via MS-LOT)	The Developer describes the proposed study area in section 2.11 of the Scoping Report. In line with the representation from NatureScot, the Scottish Ministers advise that the scope and extent of the study area must be refined for inclusion within the EIA Report. The Scottish Ministers advise that the Developer must consider the assessment and design guidance referred to in the advice from NatureScot and undertake further consultation with NatureScot, OIC, THC and any other relevant stakeholders to finalise the maximum design scenario within the EIA Report.	Study area has been illustrated as 60 kilometres (km) on the SLVIA Figures. The extent of actual visibility of the offshore Project is determined in section 18.4.4. The scope of the assessment was refined through consultations with NatureScot and THC. SNH's Assessment of Potential Seascape, Landscape and Visual Impacts and Provision of Design Guidance has been considered as part of this assessment. The maximum design scenario has been presented and agreed with NatureScot and THC through consultation meetings in April and May 2023. OIC were invited to attend the SLVIA consultation meetings. However, on the 10th August 2022, OIC confirmed–that OIC Planning were no longer providing informal advice ahead of the application.
Scottish Ministers (via MS-LOT)	With regards to the baseline data gathered in support of the assessment, the Scottish Ministers highlight the representation from NatureScot with regards to the assessment of the Caithness and Orkney coasts and consideration of the Hoy and West Mainland National Scenic Area ("NSA") and advise that this must be fully addressed within the EIA Report. In agreement with the representation from NatureScot and The Highland Council (THC), the effects on Wild Land Areas and National Scenic Areas (NSAs) must be scoped in for all phases of the offshore Project.	Hoy and West Mainland NSA is assessed in section 18.6.2.6.2. WLAs have been considered in Table 18-14. WLAs have been scoped out and justification provided for the exclusion of WLAs from further assessment. This has been consulted on with NatureScot and THC. NatureScot confirmed (31st May 2023) that a Wild Land Assessment will not be required, but rather where WLAs and NSAs overlap, the Assessing the Effects on Special Landscape Qualities (AESLQ) assessment should draw on underlying attributes and responses of the WLA, where these are exhibited to inform a single assessment. This has been provided in section 18.6.2 in relation to the Kyle of Tongue NSA and Hoy and West Mainland NSA.

CONSULTEE	COMMENT	RESPONSE
Scottish Ministers (via MS-LOT)	In Table 2-68 of the Scoping Report, the Developer has provided a list of proposed viewpoints based upon the key seascape, landscape and visual receptors identified in the zone of theoretical visibility ("ZTV") study area. The final list of viewpoints must be agreed with NatureScot, OIC and THC.	The revised viewpoints were agreed with stakeholders in September 2022.
Scottish Ministers (via MS-LOT)	In Table 2-71 of the Scoping Report the Developer summarises the potential impacts on seascape, landscape and visual receptors to be scoped in or out of the EIA Report for each phase of the Proposed Development. The Scottish Ministers, in agreement with the representation from NatureScot and THC, advise that the effects on Wild Land Area's and NSAs must be scoped in for all phases of the Proposed Development. In line with the OIC representation, the impacts on the setting of historical environmental assets, and in particular The Heart of Neolithic Orkney World Heritage Site and coastal scheduled monuments, must be scoped into the assessment, and be clearly linked with the Marine Archaeology and Cultural Heritage chapter of the EIA Report. As highlighted in the NatureScot and THC representations, the Scottish Ministers advise that construction and decommissioning effects from the Proposed Development on the landscape and visual receptors, must be scoped into the EIA Report. Impacts from OSP and any temporary accommodation must be scoped into the EIA Report as detailed in the THC representation. Additionally, in line with the representation from the THC, the Scottish Ministers advise that the Landscape and Visual Impact Assessment included within the EIA Report must include the impact on tourist and recreational routes including core paths including the national cycle network and long distance trails. A route assessment should also be included to consider the impact on road users as detailed in the THC representation.	WLAs have been considered in Table 18-14. WLAs have been scoped out and justification provided for the exclusion of WLAs from further assessment. This has been consulted on with NatureScot and THC. NatureScot confirmed (31st May 2023) that a Wild Land Assessment will not be required, but rather where WLAs and NSAs overlap, the Assessing the Effects on AESLQ assessment should draw on underlying attributes and responses of the WLA, where these are exhibited to inform a single assessment. The assessment includes visual effects of Cultural Heritage assets of visitor interest which are located within the ZTV. The heart of Neolithic Orkney (HONO) WHS (the group of Neolithic monuments) is outside the ZTV (Figure 18.11.3). The setting of cultural heritage assets are included in chapter 16: Marine archaeology and cultural heritage. Construction and decommissioning effects from the Project on the landscape and visual receptors, have been scoped into the EIA Report. Temporary accommodation is anticipated to be located within existing harbours / ports. Impacts of the Offshore Substation Platform (OSP) and temporary accommodation are considered throughout the assessment. The assessment has also considered impact on the tourist and recreational routes including core paths including the national cycle network and long-distance trails within section 18.6.3.1. Transport routes have been considered within section 18.6.3.1.2 and 18.6.3.2.2 .

CONSULTEE	COMMENT	RESPONSE
Scottish Ministers (via MS-LOT)	For completeness the visual representation of viewpoints must be included within the EIA Report and photomontages must satisfy both NatureScot and THC requirements.	All 28 viewpoints are illustrated in accordance with NatureScot guidance. Viewpoints 1-19, located with the THC administrative area, have also been illustrated in accordance with THC guidance. SS17: SLVIA Zone of Theoretical Visibility and Visualisations Methodologies provides visualisation methodology.
Scottish Ministers (via MS-LOT)	With regards to proposed methodology for the impact assessment, the Scottish Ministers highlight the NatureScot representation and the availability of draft guidance on artificial lighting which should be considered to inform the assessment of navigation and aviation lighting on WTG's. Additionally, the draft guidance in relation to the effects on special qualities of NSAs should also be considered in the assessment.	NatureScot's response of May 2023 advised that they are not in a position to share a working draft of Scottish Government's guidance on assessing WTG lighting effects. NatureScot's current advice on WTG lighting is set out in the annex of their pre-application guidance at https://www.nature.scot/doc/general-pre-application-and-scoping-advice-onshore-wind-farms, which has been followed for the night time lighting assessment in SS18: SLVIA Night-time Lighting Assessment. NatureScot's draft 'Guidance for Assessing the Effects on Special Landscape Qualities' has been considered as part of the assessment.
Scottish Ministers (via MS-LOT)	With regards to cumulative assessment presented within the EIA Report, the Scottish Ministers advise that the Developer must fully address the requirements as detailed in THC representation.	THC scoping advise has been followed and THC energy map has been reviewed. Cumulative assessment is provided with the existing, consented and in application stage developments in sections 18.6 and 18.7 respectively.
Scottish Ministers (via MS-LOT)	The Scottish Ministers direct the Developer to the advice from Visit Scotland regarding the importance of scenery to tourism. Advice on tourism impacts are addressed in the Socio-Economics paragraphs of this Scoping Opinion.	VisitScotland website has been visited and considered in relation to visual receptors such as visitor destinations (section 18.4.6.5 Visual receptors).
NatureScot	Reference should be made to the Sectoral Plan consultation - NatureScot Landscape and Visual Impact Assessment and Design Guidance to inform the initial siting and design within the N1 DPO area. NatureScot supports the proposed iterative design approach and agree that most mitigation of landscape and visual receptors is through embedded	Reference has been made to the Sectoral Marine Plan consultation in section 18.2.6 and this has been taken into account within the site selection process outlined in chapter 4: Site selection & consideration of alternatives. SNH's Assessment of Potential Seascape, Landscape and Visual Impacts and Provision of Design Guidance has been used to inform the initial siting and design within the N1

CONSULTEE	COMMENT	RESPONSE
	mitigation in the siting and design of the layout in the OAA. This is ideally a layout which appears logical from multiple sensitive receptors. Gaps or seemingly attributable breaks in the wind farm composition (stemming from benthic constraints) would reduce the clarity and cohesiveness of the wind farm when experienced from coastal and sea-based receptors, potentially increasing levels of effect individually and cumulatively. NatureScot supports the proposed Seascape and landscape technical working group and wish to be represented on this group. Through this group NatureScot supports the development of design principles and a design statement.	PO are that were provided in response to the SMP have been taken into account as part of the site selection refinement. The Project supports the iterative design approach and has discussed this with NatureScot. It is proposed that the approach will extend into the post-consent process as outlined in section 18.11. SLVIA consultations have involved all interested stakeholders in NatureScot, THC and OIC. It is intended that this continues post-consent, into the development of the Design Statement.
NatureScot	The SLVIA study area is proposed as a maximum 60 km radius from the perimeter of the OAA. However, the explanation of the factors affecting prediction of significant effects, including in particular the curvature of the earth and acuity of the human eye, is helpful and NatureScot recognises these aspects which will duly inform refinement of the scope and study area extents.	The extent of the study area has been presented and discussed with NatureScot, THC and OIC. The ZTV analysis and field surveys provide an indication of the likely extent of the effects.
NatureScot	Baseline information: We support the proposed initial desk-based review of available data sources outlined in Table 2-67 (Section 2.11.3) of the Scoping Report. In particular we advise that where coastal character assessment is available, this should be reviewed in relation to scale of assessment and consistency of information between the Caithness and Orkney coasts and seek to remedy any inconsistencies or gaps in the data set.	The relevant data source for the SLVIA in Table 18-5 includes coastal character assessments, which have been verified during the field surveys.
NatureScot	It is important to note that Rackwick is defined as a Locational Specific Quality (LSQ) within the Hoy and West Mainland National Scenic Area (NSA). Orkney Sectoral Plan guidance takes account of framed views out from Rackwick to mitigate significant effects on this sensitivity.	The LSQ of Rackwick has been included in the assessment of SLQs on the Hoy and West Mainland NSA in section 18.6.2.6.2. Pentland Firth Offshore Floating Wind Farm SLVIA Viewpoints have been considered. SS16: Viewpoint Assessment provides the Viewpoint Assessment. All 28 representative

CONSULTEE	COMMENT	RESPONSE
	Viewpoints proposed for the SLVIA for the Pentland Firth Offshore Floating Wind Farm should be taken account of in the location of proposed viewpoints for the assessment.	Viewpoints' locations were confirmed by NatureScot~~NS~~ following post scoping meetings (see Table 18-3).
NatureScot	Given the quality of the Zones of Theoretical Visibility (ZTV) Figures (Figures 2-42 to 2-45, Section 2.11.4.1) it is difficult to ascertain the specific location of several of the viewpoints proposed in relation to predicted visibility. For further discussion of proposed viewpoints and to agree the final locations it would be useful if more detailed maps could be accessed (on a virtual storage location for example) as part of the technical working group collaboration.	The final list of viewpoints and wirelines and the reasoning behind each one, has been agreed with consultees in September 2022. The purpose behind each viewpoint has been stated in this chapter.
NatureScot	At this stage we recommend the following additions/amendments: - Rackwick - a LSQ within the NSA - taken from Rackwick comprising a framed view out to the OAA site. Initial wirelines could be used to inform the preferred location. - Coastal views from the Kyle of Tongue NSA. - VP 15 - it is difficult to ascertain the exact location of this viewpoint in relation to the sensitivities of Stromness and elevation of views which may have visibility.	The final list of viewpoints and wirelines and the reasoning behind each one, has been agreed with consultees in September 2022. The purpose behind each viewpoint has been stated in this chapter. The LSQ of Rackwick has been included in the assessment of SLQs on the Hoy and West Mainland NSA in section 18.6.2.6.2. Viewpoint 5 Torrisdale Bay represents coastal Kyle of Tongue NSA. During the EIA process, the viewpoint list has been reviewed and agreed with consultees, including OIC in September 2022. Viewpoint 24 - Warebeth (on Warebeth road to beach) has been selected as a representative viewpoint for the assessment of the views for Stromness (in place of the VP15 in the scoping report) due to this viewpoint being on a steep hill and therefore giving more context as well as being representative of local residents and visitors. The Stromness Citadel is a visitor destination located in proximity to the sensitivities of Stromness and has an elevated view. An assessment of the views from the Stromness Citadel as a visitor destination is included in this chapter.

CONSULTEE	COMMENT	RESPONSE
NatureScot	In relation to the night-time visualisations NatureScot advised that baseline images should be rendered to show a noticeable contrast between the land, sea and sky. Low light levels represent typical twilight conditions (i.e., dawn/dusk) and allow some consideration of the landscape context.	SS18: SLVIA Night-time Lighting Assessment provides the night-time lighting assessment alongside the five night-time Viewpoint photomontages. The baseline photography is recorded during the twilight period, which corresponds with periods when people are more likely to be outside at night and allows a visible horizon which is required in order to correctly render the photomontages.
NatureScot	NatureScot are broadly content with the impacts proposed to be scoped in for seascape, landscape and visual resources as per Table 2-71, Section 2.11.6. However, whilst NatureScot understand the construction period is only for a relatively short period of time, the change of the seascape from undeveloped open water to a construction site, will incur a significant amount of change. In addition, this change is likely to be emphasised and exacerbated by the high levels of marine vessels to facilitate the construction of the wind farm. Furthermore, the shipping movements from and to the site will exacerbate the levels of effect. Therefore, NatureScot requested that a proportionate and focussed assessment of construction effects on the landscape and visual receptors be scoped in. This is consistent with previous advice on this aspect of offshore wind energy assessment.	As the construction of the WTGs is unlikely to be easily visible from the coast until the WTG towers are erected. The main effects will be the marine traffic, and this is acknowledged and assessed in the assessment in section 18.6.1.
NatureScot	The ZTV indicate notable areas of predicted visibility for the North-West Sutherland NSA, the Ben Hope - Ben Loyal WLA and The East Halliday Flows WLA and at this stage should remain scoped in. As part of the technical working group, we would be happy to discuss this matter further, if possible informed by wirelines from within these protected areas.	The limitations of the ZTV have been explained in SS17: SLVIA Zone of Theoretical Visibility and Visualisations Methodologies. NW Sutherland NSA does not have a strong relationship to the north coast and is over 40 km from the OAA and is therefore excluded from the assessment. WLA have been considered in Table 18-14 with justification provided on why no further assessment is required. NatureScot confirmed (31st May 2023) that a Wild Land Assessment will not be required, but rather where WLAs and NSAs overlap, the AESLQ assessment should draw on underlying attributes and responses of the WLA, where these are exhibited to inform a single assessment. This has been provided in section 18.6.2.6.2 in relation to the Kyle of Tongue NSA and Hoy and West Mainland NSA.

CONSULTEE	COMMENT	RESPONSE
NatureScot	NatureScot are generally in agreement with the proposed methodology for SLVIA and Cumulative Landscape and Visual Impact Assessment (CLVIA) outlined in the Scoping Report in that it reflects and takes cognisance of current good practice.	Assessment Methodology is provided in section 18.5 and was discussed via ongoing consultation throughout the EIA.
NatureScot	NatureScot draft technical guidance (in draft) in relation to assessing the effects on Special Qualities of the NSAs Assessing the Effects on Special Landscape Qualities (AESLQ) is available on request.	The NatureScot draft guidance has been followed for assessment of NSAs in section 18.6.
NatureScot	NatureScot recommends contacting the relevant local authorities for the cumulative assessment with onshore wind energy, and to Marine Scotland, for offshore wind energy.	Cumulative data was acquired from MS-LOT, THC and OIC websites.
NatureScot	NatureScot draft guidance on the assessment of artificial lighting (where there is the potential to be a significant effect) should be considered to inform the assessment of the effect of wind WTG generator navigation and aviation lighting.	SS18: SLVIA Night-time Lighting Assessment presents a detailed assessment of the effects of the lighting of the offshore Project on three of the representative viewpoints and a high-level assessment on all the remaining representative viewpoints.. NatureScot's response of 31st May 2023 advised that they are not in a position to share a working draft of the Scottish Government's guidance on assessing WTG lighting effects. NatureScot's current advice on WTG lighting is set out in the annex of their pre-application guidance at https://www.nature.scot/doc/general-pre-application-and-scoping-advice-onshore-wind-farms, which has been followed for the night-time lighting assessment in SS18: SLVIA Night-time Lighting Assessment.
NatureScot	Agreed that there are unlikely to be any transboundary impacts for seascape, landscape and visual impacts.	Noted and scoped out (see section 18.10).

CONSULTEE	COMMENT	RESPONSE
OIC	Table 2-67 Summary of Key Datasets and Reports Include Orkney Islands Marine Region: State of the Environment Assessment 2020"	Acknowledged, this has been considered and is listed in section 18.4.2.
OIC	Acknowledge and assess impacts on the setting of historic environment assets, particularly the components/setting of the WHS and coastal scheduled monuments, linking with Archaeology and Cultural Heritage section of the EIAR.	Assessment section 18.6 includes the visual effects upon Cultural Heritage assets of visitor interest within the ZTV. Chapter 16: Marine archaeology and cultural heritage also considers assessment impacts on the setting of historic environmental assets.
OIC	Additional viewpoints suggested: Sneuk Head (Hoy Area of Wild Land); Rackwick Beach; Warebeth Beach; Blackcraig; Yesnaby; MV Hamnavoe – Closest point on ferry route when MV Hamnavoe transiting Stromness to Scrabster. Visual impacts on core paths should be considered as key receptors.	All additional VPs have been included in the assessment with the exception of Sneuk Head and Blackcraig viewpoints. Sneuk Head was undertaken as a wireline only, due to the inaccessibility of the viewpoint. Blackcraig was also undertaken as a wireline only as it was considered to be represented by VP21 and VP22, Warebeth (located on Warebeth road to the beach) and Yesnaby (Brough of Biggin) Final VPs were discussed and agreed with NatureScot, THC and OIC during consultations on SLVIA. All recreational routes (including core paths) which have potential effects have been identified and assessed in section 18.6.3.
OIC	It is noted that viewpoints from key locations to represent landscape/visual receptors will be identified through the site/route selection process and production of ZTV plans with the final viewpoints for assessment to be agreed with consultees. OIC requests to be consulted on the identification of viewpoints.	The final list of viewpoints and wirelines and the reasoning behind each one, has been agreed with consultees in September 2022. The purpose behind each viewpoint has been stated in this chapter.
THC	The Council expects the EIAR to consider the seascape, landscape and visual impact of the development. The Council makes a distinction between the two. While not mutually exclusive, these elements require separate assessment and	The SLVIA considers the seascape, landscape and visual effects of the offshore Project.

CONSULTEE	COMMENT	RESPONSE
	therefore presentation of visual material in different ways. It is the Council's position that it is not possible to use panoramic images for the purposes of visual impact assessment. The Council, while not precluding the use of panoramic images, require single frame images with different focal lengths taken with a 35mm format full frame sensor camera – not an 'equivalent.' The focal lengths required are 50mm and 75mm. The former gives an indication of field of view and the latter best represents the scale and distance in the seascape and landscape i.e. a more realistic impression of what we see from the viewpoint. These images should form part of the EIAR and not be separate from it. Photomontages should follow the Council's Visualisation Standards: https://www.highland.gov.uk/downloads/file/12880/visualisations.	The THC requirements for visualisations have been discussed and agreed on 17th May 2023, taking into account NatureScot's requirements as well. 50 mm and 75 mm focal length photomontages have been provided for all viewpoints within THC administrative area. THC confirmed that the 65.5 degree photomontage is not required.
THC	The following are minimum requirements for the printed copies: • For hard copies - Visuals should be presented in their own bound version of the document; • The first image should clearly set out the location of the viewpoint and directions on how to get there (as per figure 2 of the Standards); • The second page should include a photomontage presented at A3 with a 50mm field of view for landscape assessment (as per figure 6 of the Standards); • The third page should include a baseline photograph at 50mm field of view and wirelines at the same scale as per Figure 7 or Figure 8 of the Standards); • The fourth page should include a 50mm image photomontage (as per figure 10 of the Standards); • The fifth page should include a 75mm image photomontage for assessment of visual impacts (as per figure 12 of the Standards); and	The requirements for printed copies are noted and will be met. The THC requirements for visualisations have been discussed and agreed on 17th May 2023, taking into account NatureScot's requirements as well. Each viewpoint follows the below: • Pg1 – viewpoint location plan (NatureScot guidance); • Pg2 – 90-degree existing view and wireline (NatureScot guidance); • Pg3 – 53.5-degree wireline (NatureScot guidance); • Pg4 – 53.5-degree photomontage (NatureScot guidance); • Pg5 – 50 mm THC photomontage (THC guidance); and • Pg6 – 75 mm THC photomontage (THC guidance). THC have agreed to include only the 50 mm and 75 mm photomontages. Orkney viewpoints omit Pages 5-6 as they are outwith THC administrative area.

CONSULTEE	COMMENT	RESPONSE
	The document requires to be printed single sided with a high quality laser printer or equivalent on photo quality paper.	
THC	The use of monochrome for specific viewpoints is useful where there are a number of different wind farms (existing and proposed) in the view. We are happy to provide advice on this matter going forward.	It was agreed with THC on 17th May 2023 that there is no requirement for monochromes.
THC	All existing and proposed WTGs should be re-rendered even if they appear to be facing the viewer in the photograph to ensure consistency and to ensure the cumulative assessment can be considered on the worst case scenario.	It was agreed with THC on 17th May 2023 that re-rendering of existing WTGs will only apply to Viewpoint 16.
THC	This assessment should include the expected impact of the offshore substations and any temporary accommodation despite the fact that the wind turbines themselves will be of primary concern. All elements of a development are important to consider within any EIAR.	Impacts on the OSP and temporary accommodation have been considered qualitatively within section 18.6.1. Any temporary accommodation (e.g. flotels) will be located within existing port/harbour developments and subject to existing / future permissions and licencing requirements.
THC	A study area of 60km has been proposed for the development. It is noted that the project would be below the horizon line at a distance of 68.7km. Given this study area covers most of the settled areas and some of the more prominent areas for recreation along the north coast, this is accepted. However, if the project changes in scale with larger turbines proposed, it may be appropriate to extend the study area. The assessment of seascape, landscape and visual impact should be completed in full across the entire study area. For the avoidance of doubt, THC do not consider it to be acceptable to screen out viewpoints for a full assessment based upon distance.	The study area of 60 km has been discussed and agreed with consultees through consultation. No increase in WTG scale has occurred since the scoping report was issued. The SLVIA considers the effects across the full study area. All viewpoints have been agreed with consultees through consultation.

CONSULTEE	COMMENT	RESPONSE
THC	In terms of cumulative impacts, THC encourage to review the wind energy map on their website which will provide an indication of other projects in the area which may require consideration: http://highland.gov.uk/windmap	Website visited December 2022 and Cumulative data is shown in Figure 18.6.
THC	The finalised list of Viewpoints (VP) and wireframes for the assessment of effects of a proposed development must be agreed in advance of preparation of any visuals with THC. However at present THC can advise that they would like to see additional viewpoints. This should include: • A viewpoint on the A9 on the approach into Thurso; • A viewpoint on A897; • A viewpoint on the A836 between Altnaharra and Tounge; • A viewpoint on the A838 on A'Moine peninsula; • A viewpoint on the crossing between Scrabster and Stromness; and • A viewpoint on the crossing between Gills Bay and St Margaret's Hope.	THC advice has been followed, and the detailed location of viewpoints was informed by site surveys, mapping and predicated ZTVs. The final list of viewpoints was agreed with THC at the September 2022 consultation meeting. See Table 18-17. Baseline analysis of the inclusion of visual receptors to the assessment is provided in section 18.4.6. It was agreed with THC on 17th May 2023 not to include the following viewpoints: • A9 on the approach into Thurso – outwith ZTV; • A897 – mainly outside of ZTV, VP7 at Melvich bay representative; and • Gills Bay and St Margaret's Hope – long distance of over 50 km with limited visibility.
THC	The purpose of the selected and agreed viewpoints shall be clearly identified and stated in the EIAR. For example, it should be clear that the VP has been chosen for seascape assessment, landscape assessment, or visual impact assessment, or cumulative assessment, or sequential assessment, or to show a representative view or for assessment of impact on designated sites, communities or individual properties.	The final list of viewpoints and wirelines and the reasoning behind each one, has been agreed with consultees in September 2022. The purpose behind each viewpoint has been stated in this chapter.

CONSULTEE	COMMENT	RESPONSE
THC	THC acknowledges that there will be some micrositing of the viewpoints to avoid intervening screening of vegetation boundary treatments etc. THC 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. THC 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.	The final list of viewpoints and wirelines has been agreed with consultees in September 2022 and was informed by extensive fieldwork and photography and the 3D model. A 3D model has been produced for the offshore Project and has been used to understand the overall impact of the offshore Project.
THC	The detailed location of viewpoints will be informed by site survey, mapping and predicted ZTVs. 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, and associated reporting on consultation undertaken, take this into account.	The final list of viewpoints and wirelines has been agreed with consultees in September 2022 and was informed by extensive fieldwork and photography and the 3D model. The location of viewpoints has been presented at PAC events and local community consultation events.
THC	THC would like detailed route analysis for the A836 along the north coast. This should be supported by wirelines and appropriate photomontages.	A detailed route analysis for the A836 has been included in section 18.6.3.1 and is illustrated on Figure 18.21a-g.
THC	Further the SLVIA Chapter of the EIAR should clearly set out the methodology including: • Definitions of each point on the scale of magnitude of change which is used by the applicant in reaching a conclusion on the magnitude of change; • Definitions of each point on the scale of sensitivity of receptor which is used by the applicant in reaching a conclusion on the sensitivity of receptor;	The SLVIA chapter has a methodology in section 18.5 where clear definitions on magnitude, sensitivity and the level of effect are provided. Moderate effects could be significant or not significant, depending on professional judgement, and this is noted within the methodology. The methodology section provides a matrix approach and provides a description on how each conclusion is reached. In line with GLVIA 3, the matrix is not used as a prescriptive tool, to ensure the methodology and analysis of potential effects at any particular location allows for the exercise of professional judgement.

CONSULTEE	COMMENT	RESPONSE
	• The threshold to which the applicant considers a significant effect is reached. For the avoidance of doubt the Council consider that Moderate impacts can be significant, and it is recommended that the EIAR takes this approach as well; and A clear matrix approach supported by descriptive text setting out how the applicant reaches their conclusion of effect on landscape character, designated landscapes, visual receptors and residential amenity.	The nature of SLVIA requires interpretation through professional judgement. In order to provide a level of consistency in the assessment, the prediction of magnitude and assessment of significance of the residual landscape and visual impacts have been based on pre-defined criteria. The SLVIA has been undertaken and reviewed by three chartered landscape architects.
THC	When assessing the impact on tourist and recreational routes please ensure that all core paths, the national cycle network, long distance trails are assessed. It should be noted that these routes are used by a range of receptors. As outlined above a route assessment should be included to consider the impact of the development on users of the road network. This should be focussed on the A9, A99, B876, A836, A897, A838, and B870. This should be supported by wirelines, and viewpoint assessments should be provided from these routes in the main body of the Landscape and Visual Assessment (LVIA).	All routes which have potential effects upon tourist and recreational routes have been identified and assessed in section 18.6.3. The final list of viewpoints has been agreed with consultees in September 2022 and these have been used to support the assessment throughout. Analysis of the ZTV has demonstrated that certain transport routes, the A9, A99, B876, A897 and B870, in the study area extend south-north through straths and are largely outwith the ZTV. Although some visibility has been indicated by the ZTV this would be limited to short sections of the routes and given their long distance, the magnitude would be no greater than negligible and these are therefore no further assessment is proposed on the basis that effects would not be significant (agreed with THC on 17th May 2023). The A836 and A838, which overlap with the North Coast 500 route and the Sustrans National Cycle Route 1: Inverness to John O' Groats, are considered in further detail. The SLVIA includes the effects on tourist and recreational routes including core paths, national cycle network and long-distance trails (including Scotland's Great Trails). Consideration has been given to the different users of these routes.
THC	The development will further extend the number of proposals of this type in the surrounding area, necessitating appropriate cumulative impact. It is	A cumulative assessment has been conducted and is presented in section 18.7.

CONSULTEE	COMMENT	RESPONSE
	considered that cumulative impact will be a significant material consideration in the final determination of any future application.	The importance of this assessment is noted and agreed. The Pentland Floating Offshore Wind Farm (PFOWF) and appropriate onshore windfarms in application stage has been included in the cumulative assessment. A full list of developments considered in the cumulative assessment is provided in Section 18.7.2.
THC	We expect an assessment of the proposal against the criterion set out in the Council's OWESG to be included within the LVIA chapter of the EIAR.	All guidance documents mentioned have been used to inform the assessment. The OWESG and the Caithness Landscape Sensitivity Appraisal have been reviewed and considered in the assessment process.
THC	In each of the viewpoints all infrastructure should be shown, both on and offshore, to ensure cumulative matters are assessed.	It was agreed with THC on 17th May 2023 that due to the long distance, infrastructure associated with the offshore Project would be limited to the WTGs as the small scale of the offshore substations would be largely screened due to the curvature of the earth.
THC	An assessment of the relevant landscape character and seascape character should be undertaken. Further assessment of the proposal against the qualities of the Special Landscape Areas along the north coast and identified on Figure 2-45 should be included in the EIAR. While THC would welcome an assessment of the impact on the National Scenic Areas and the Wild Land Areas identified on Figure 2-54 to help inform our assessment, THC would be led by NatureScot's response on that matter.	Potential effects upon THC SLAs are assessed in section 18.6.2.6.1 and NSAs in 18.6.2.6.2. WLAs have been considered in Table 18-14 with justification provided on why no further assessment is required. NatureScot confirmed (31st May 2023) that a Wild Land Assessment will not be required, but rather where WLAs and NSAs overlap, the AESLQ assessment should draw on underlying attributes and responses of the WLA, where these are exhibited to inform a single assessment. This has been provided in section 18.6.2.6.2 in relation to the Kyle of Tongue NSA and Hoy and West Mainland NSA.
THC	Given the potential cumulative impact of the proposal it is expected that the applicant should present images for presentation within the Panoramic Digital Viewer deployed by the Council – see visualisation standards document. To	It was agreed with THC on 17th May 2023 that the Council would confirm the relevant images required for the Panoramic Viewer once the application was submitted.

CONSULTEE	COMMENT	RESPONSE
	view current or determined schemes in the Council's Panoramic Viewer please see the link below: http://www.highland.gov.uk/panoramicviewer.	
THC	THC considers it appropriate to scope in assessment of operational impact on users of recreational routes and core paths within the inland study area as some of these will have visibility of the development.	All routes which have potential effects have been identified and assessed in section 18.6.3.
THC	THC do not consider it appropriate to scope out the construction and decommissioning impacts completely and reference should be made to them in the EIAR. THC consider it appropriate to scope in assessment of operational impact on users of recreational routes and core paths within the inland study area as some of these will have visibility of the development.	Potential effects attributable to the construction and decommissioning have been considered in section 18.6.1. Due to the temporary nature of these effects these have not been assessed in detail for every receptor.
THC	It is considered that the guidance in the Onshore Wind Energy Supplementary Guidance and the Caithness Landscape Sensitivity Appraisal (both available on the Council website) should be used to inform the assessment. Further the recently published guidance from Marine Scotland and Energy Consents Unit on the use of design envelopes should be considered.	All guidance documents mentioned have been used to inform the assessment. The OWESG and the Caithness Landscape Sensitivity Appraisal have been reviewed and considered in the assessment process. The guidance from Marine Scotland and Energy Consents Unit on the use of design envelopes has also been considered when developing the worst case scenario is presented in section 18.5.5.
THC	The consideration of the content of the Seascape, Landscape and Visual section of the EIAR has been focused on matters within the interest of Highland Council. It is anticipated that Orkney Isles Council will provide a response to matters within their interest.	Noted and acknowledged. Consultation has been undertaken separately with OIC.

18.4 Baseline characterisation

This section outlines the current baseline conditions for seascape, landscape and visual amenity within the study area. The seascape, landscape and visual baseline of the assessment was established by undertaking a detailed desk study, fieldwork, and analysis of findings to create a detailed understanding of the existing context of both the OAA and its surrounding landscape within the study area. The desk-based assessment identifies existing coastal and landscape character assessments and the cumulative situation within the study area. ZTV study and wirelines of the offshore Project inform the identification of seascape, landscape and visual receptors which are likely to be pertinent to the assessment. Project site specific surveys have been conducted in the form of field work to further inform the baseline.

Together the established baseline provides an understanding of the components of the seascape, landscape and visual resource that may be affected by the offshore Project, which includes the identification of key receptors and viewpoints which represent such receptors. The baseline is of sufficient detail to enable a well-informed assessment of the likely landscape & visual effects on the baseline conditions of the offshore Project.

The baseline study establishes the scope of the assessment and the key seascape, landscape and visual receptors, which would be potentially affected by the offshore Project.

18.4.1 Study area

The 'SLVIA' study area comprises a 60 km radius area (Figure 18.1) which extends from the OAA boundary, comprising the surrounding Atlantic and western coast of Orkney Mainland, Hoy to the east, and the northern coast of Scotland to the south.

The study area accords with SNH's guidance on the visual representation of wind farm developments[17], which recommends that ZTV distances are used for defining study area based on wind WTG height. The guidance recommends 45 km for wind WTGs greater than 150 metres (m) to blade tip, although it also recognises that "…greater distances may need to be considered for the larger wind WTGs used offshore" (SNH, 2017a), para 48). The extent of the study area was agreed with THC and NatureScot.

18.4.2 Data sources

Data has been gathered from official, reliable and the most up-to-date sources. This includes Ordnance Survey map-based data, as well as NatureScot data on landscape character, designations and THC cumulative data. The existing data sets and literature with relevant coverage to the offshore Project, which have been used to inform the baseline characterisation for 'SLVIA' are outlined in Table 18-5.

[17] *SNH (2017) Visual Representation of Wind Farms Version 2.2.*

Table 18-5 Summary of key datasets and reports

TITLE	SOURCE	YEAR	AUTHOR
Assessment of Highland SLA	https://www.highland.gov.uk	2011	THC
Caithness and Sutherland Local Development Plan	https://www.highland.gov.uk	2018	THC
Coastal Character Assessment: Orkney and North Caithness	https://www.nature.scot	2016	SNH
Core Paths in Highland Council area	https://highland.maps.arcgis.com/apps/webappviewer/index.html?id=2fd3fc9c72d545f7bcf1b43bf5c8445f	2022	THC
Core Paths in the Orkney area	https://www.orkney.gov.uk/Service-Directory/C/Core-Paths.htm	2022	OIC
Electricity Act 1989 - section 36 applications: guidance for applicants on using the design envelope	https://www.gov.scot/publications/guidance-applicants-using-design-envelope-applications-under-section-36-electricity-act-1989/	2022	Scottish Government
Highland wide Local Development Plan (HwLDP)	https://www.highland.gov.uk	2012	THC
Historic Environment Scotland: Gardens and Designed Landscapes (GDLs)	https://www.historicenvironment.scot/advice-and-support/listing-scheduling-and-designations/gardens-and-designed-landscapes/search-for-a-garden-or-landscape/	2022	Historic Environment Scotland
Landscape Sensitivity Appraisal: Black Isle, Surrounding Hills and Moray Firth Coast, Caithness – Addendum Supplementary Guidance 'Part 2B' as part of Onshore Wind Energy Supplementary Guidance	THC (www.highland.gov.uk)	2017	THC
Met Office Visibility Data	Mettoffice.gov.uk	2021/2022	Met Office

TITLE	SOURCE	YEAR	AUTHOR
National Cycle Network	https://www.sustrans.org.uk/national-cyclenetwork/	2022	Sustrans
NatureScot Landscape Character Assessment	https://www.nature.scot	2021	NatureScot
Orkney Local Development Plan 2017	https://www.orkney.gov.uk/	2017	OIC
Orkney Islands Regional Marine Plan: Consultation draft	https://www.orkney.gov.uk/Service-Directory/D/marine-planning.htm	2022	OIC
Pilot Pentland Firth and Orkney Waters Marine Spatial Plan	Marine Scotland, The Scottish Government	2016	The Scottish Government
Ordnance Survey (OS) 1:50,000	Xodus Group, via emapsite: emapsite.com	2020/2021	Ordnance Survey
OS 1:250,000 Raster from OS OPEN data	OS OpenData	2021	Ordnance Survey
OS Terrain 5 Digital Terrain Model (DTM)	Emapsite: emapsite.com	2021	Ordnance Survey
Scottish Natural Heritage Commissioned Report No.374 The special qualities of the NSA	https://www.nature.scot	2010	SNH
Scotland Landscape Character Assessment	SNH (www.nature.scot)	2019	SNH
Scotland's National Coastal Character Map	SNH (www.nature.scot)	2010	SNH
Sustrans: Orkney Islands: Burwick to Kirkwall and Stromness	https://explore.osmaps.com/route/5513088/sustrans-orkney-islands-burwick-to-kirkwall-and-stromness	2022	Explore
The Special Qualities of the NSA. SNH Commissioned Report No.374	SNH (www.nature.scot)	2010	SNH
THC wind turbine map	THC (https://www.highland.gov.uk/info/198/planning_-	2023	THC

TITLE	SOURCE	YEAR	AUTHOR
	_long_term_and_area_policies /152/renewable_energy/4)		
WLAs descriptions and map	https://www.nature.scot	2017	SNH

18.4.3 Project site-specific surveys

The SLVIA has been informed by desk-based studies and field survey work undertaken within the SLVIA study area. The landscape, seascape and visual baseline has been informed by desk-based review of landscape and seascape character assessments, and the ZTV, to identify receptors that may be affected by the offshore Project and produce written descriptions of their key characteristics and value.

Desktop findings were verified and augmented by targeted field reconnaissance during which all key sensitive receptor locations were visited. During the field reconnaissance single frame wireline views were utilised to verify theoretical visibility (including cumulative visibility).

Viewpoints identified through consultation and during desk studies were ground-truthed through fieldwork and their positions fixed prior to photography being undertaken.

- Orkney – 25th-27th July 2022; and
- Caithness – 16th-18th August 2022.

18.4.4 Zone of Theoretical Visibility studies

18.4.4.1 Zone of Theoretical Visibility (ZTV)

The ZTV analysis is the process of determining the non-visibility and the theoretical visibility of the offshore Project in the landscape. It is a computer-generated analysis which evaluates visibility using the height and extent of the offshore Project against a digital terrain model. It's important to understand that the ZTV is not used to determine actual visibility, only theoretical visibility. Actual visibility can only be determined on site; site surveys are used to "ground truth" those areas shown on the ZTV as theoretically visible. In some instances, it has been useful to confirm the nature of visibility with wireframe views as part of the analysis of the visibility mapping.

The methodology of ZTV production and the limits of the ZTV are described in SS17: SLVIA ZTV and Visualisations Methodology.

18.4.4.1.1 Zone of Theoretical Visibility Analysis

As can be seen from the Blade Tip ZTV presented in Figure 18.9.1 SS17: SLVIA ZTV and Visualisations Methodology, the WTGs could theoretically be widely visible within the 60 km study area in all directions, with intermittent visibility

inland where the terrain influences the degree of theoretical visibility. It is noted that the comparative Hub height and Blade Tip ZTV pattern in Figure 18.9.2 shows relatively limited areas with only 'Blade tip visibility', visibility of the parts of the WTGs which are above the hub - the nacelle and blades. The prevailing ZTV pattern shows 'Hub height' visibility, indicating that the WTGs would be visible in their entirety.

For detailed analysis, the ZTV has been presented on a 1:50,000 base map (SNH (2017), para 53). For the ZTV to be clear and legible and in order to accommodate the study area an A0 sheet format was utilised, which allowed for a scale of 1:70,000. As the 60 km study area does not fit onto one A0, the area was divided, and three separate figures were produced to illustrate the ZTV SS17: SLVIA ZTV and Visualisations Methodology:

- Figure 18.10.1 & Figure 18.11.1 – Sutherland;
- Figure 18.10.2 & Figure 18.11.2 – Caithness; and
- Figure 18.10.3 & Figure 18.11.3 – Orkney.

The ZTVs indicate theoretical visibility along the north coast of Sutherland and Caithness, and the west coast of Hoy, Mainland Orkney, Rousay and Westray. The ZTV pattern is not homogeneous along the coast and becomes more fragmented and limited where impinged upon by high topography, leaving the straths which cut into the landscape outwith the visibility zone. This ZTV pattern indicates that hinterland visibility would be mainly possible from elevated locations. The main roads extend through the straths in a north south direction and therefore the related ZTV pattern with the hinterland roads is very sparse, showing increased visibility closer to the coast.

As the ZTV draws on the topography; visibility is restricted by topography and although the northern coastline of Scotland is quite elevated, its complex topographical formation means that visibility of the offshore Project could be restricted in locations on the immediate coastal edge, from where open visibility of the sea is to be expected. For example, most of the landform of Faraid Head (including Balnakeil Bay) at a distance of 24.2 km appears to be outside of the ZTV (Figure 18.10.1, SS17: SLVIA ZTV and Visualisations Methodology), despite the narrow headland reaching out to the sea. This is because its northern tip is formed by a 90 m high cliff, which descends steeply southwards towards Balnakeil Bay, which is at a low contour level of 10 m. Visibility across the A'Mhoine promontory is also restricted by the higher topography close to the coastal edge, falling towards the hinterland. Due to the topography the ZTV colour pattern appears to be fragmented across the Sutherland coastal areas, indicating restricted visibility.

The ZTV pattern is more homogeneous along the coastal edge of Caithness (Figure 18.10.2, SS17: SLVIA ZTV and Visualisations Methodology), the landform of which is less complex, and the extent of the ZTV is restricted by shallow coastal landforms. The spread of the hinterland ZTV across Caithness, to the east of Strath Naver, is less associated with individual elements of higher topography than is the case with Sutherland.

The ZTV spreads along the western coastal edge of Hoy and Orkney Mainland (Figure 18.10.3, SS17: SLVIA ZTV and Visualisations Methodology), its spread being restricted by high topography to the east. The ZTV pattern of Hoy is similar to the Sutherland northern coast, with both possessing elevated coastal topography, whereas the ZTV of the Orkney Mainland coastal edge is similar to that of the Caithness northern coast, the topography of which is shallower.

Fieldwork observations from onshore locations confirmed that a combination of topography, localised undulations in the landform and vegetation would restrict visibility to the coastal edge. Although visibility is indicated by the ZTV

and potentially would occur from hinterland, this would be from hills and higher slopes facing towards the offshore Project. This would therefore indicate long distance visibility within the wider landscape context.

18.4.5 Offshore visibility

18.4.5.1 Factors considering long distance visibility

The SLVIA assesses the worst case scenario, as described in section 18.5.5, and assumes that visibility conditions would be such that the offshore Project, located at a distance of 24 km from the coast at its closest point, would be most visible from within the study area. In other words, the WTGs would be seen at their maximum colour difference and maximum visual magnitude. In reality, this situation seldom occurs. Even in areas with very sunny conditions, the angle of the sun is constantly changing thereby creating a partial shadow on a WTG. SS20: SLVIA Visualisations which includes wirelines and photomontages illustrates the worst case scenario of the offshore Project. The visualisations of the offshore Project at a long distance from the coast cannot be regarded as 'a realistic visual presentation' (see SS17: SLVIA Zone of Theoretical Visibility and Visualisations Methodologies for Visualisations Methodology and outlined below). The interpretation of the visual appearance of the worst case scenario of the offshore Project is due to several factors that influence the degree of visibility of any object located within marine conditions / at a considerable distance from the coast and viewer and include:

Constant factors:

- Curvature of the earth;
- Object characteristics (including colour, contrast, texture, form and size);
- Human visual acuity;
- Viewer elevation (extends the visibility distance); and
- Distance of the viewed object.

Variable factors:

- Refraction;
- Atmospheric or aerial perspective[18];
- Weather and atmospheric conditions (air clarity; the background cloud cover; haze can reduce contrast even at distances within the range of visibility; summer days have the lowest visibility and winter nights have the highest);
- Direction of the sun and wind direction in relation to the WTGs; and
- Degree of available screening.

[18] *Atmospheric perspective refers to the effect the atmosphere has on the appearance of objects when you look at them from a distance. The objects further back into the distance are less clearly visible and their colour changes in value, saturation and hue. This means that any details that could be seen when closer can't be made out from a distance. Usually, the value of the object will become lighter. The colours of the object become less saturated and more grey. The colours of the object shift around the colour wheel towards the background colour, which is usually cooler and more blue.*

Visibility distance is one influence on the level of contrast of a WTG, however other influential factors such as the degree, direction and elevation of sunlight, the background cloud cover, and haze which can reduce contrast even at distances within the range of visibility. These factors do not operate independently and contrast cannot be therefore assessed by the analysis of visibility distance alone. When the object is located at sea its visibility depends on a lot of factors. A particular feature of seascape is its variability. The most important variables in determining the character of the sea are wind, light, tidal movements and the clarity or otherwise of the atmosphere. It is this play of light and shade, the noise of the waves breaking on the shore and the promise of change that gives the sea a special quality in any view. Seascapes are altered hugely by the weather to a far greater extent than any terrestrial, rural or urban environment. An airmass at a longer distance over water is more humid, than an airmass (with the same temperature) that is over the land. In contrast to a landscape, a large water surface is roughly all of the same appearance. The sea plain offers few clues to help in judging how far away a particular point/ element in the water lies. Distances are particularly difficult to judge when looking out to sea[19].

Differing levels of visibility derived from atmospheric conditions further complicate the issue. When sunlight appears on individual WTGs, the WTGs are visible from long distances. It should be noted that variations of visibility and/or how the WTGs appear, occur across the wind farm itself in variable lighting conditions with some WTGs in shade beneath or within cloud, while others in very limited sunlight and others fully projected. Therefore, it could be expected that a large-scale wind farm will not appear as one strong coherent group in variable weather / light conditions. Tall structures may be silhouetted by sunset or sunrise and therefore certain viewing aspects are more greatly affected than others.

In mist or haze the colour and sharpness of the WTG is altered, and this can confuse observers in terms of distance and scale. Even in apparently clear summer conditions with sunny and clear skies, which is the best possible visibility scenario, the atmosphere can obscure distant objects, such as WTGs which appear fully in bright sunlight and absorbed by sun glitter when sunlight reflects off the surface of the sea / from waves.

The perceptual magnitude of a whole windfarm is a separate issue and depends on the way individual impacts accumulate. This depends not only on numbers of WTGs but also their layout relative to each other, blade orientation and to the seascape and (coast) landscape.

Clearly, a range of questions must be addressed before any quantification of the scale of visual effects can be reliably estimated.

18.4.5.2 Met office data

GLVIA3 (para. 8.15) and SNH guidance (SNH, 2017b, para 39) refer to the use of Met Office visibility data to assess typical visibility conditions within an area.

[19] *Countryside Council for Wales, March 2001, Guide to Best Practice in Seascape Assessment*

Although there are limitations to how this data can be applied to judgements about windfarm visibility, the visibility data provides some understanding and evidence basis for evaluating the actual visibility of the wind WTGs against their background.

The Met Office defines the different ranges of visibility, stating "visibility measures the distance at which an object can be clearly seen" (Met Office, 2021). The Met Office defines a visibility index as follows:

- Very poor visibility – Less than 1 km;
- Poor visibility – 1 – 4 km;
- Moderate visibility – 4 – 10 km;
- Good visibility – 10 – 20 km;
- Very good visibility – 20 – 40 km; and
- Excellent visibility – Greater than 40 km.

Based on these parameters, the prevailing meteorological conditions would need to be a of a 'very good' visibility rating or higher from the closest representative viewpoint location (VP6 Strathy Point, approximately 24 km from the OAA) in order for the windfarm to be clearly seen.

The effects identified in the SLVIA are based on the optimum viewing conditions at the time of assessment, with clear views to the OAA i.e., the visibility rating 'very good' or higher, so that the 'worst case scenario' could be assessed.

However, in reality, the degree of visibility will be influenced by the prevailing meteorological conditions, which will vary throughout the operational lifetime of the offshore Project. Clear views from the land would not be experienced every day, and there would be a finite number of days per annum where the meteorological conditions would provide ideal viewing conditions and visibility to the offshore Project.

As a consequence, the effects of the offshore Project on seascape, landscape and visual receptors will vary according to the meteorological conditions and the degree of visibility available. This means that effects that are assessed to be significant in the SLVIA under 'good' or 'very good' or 'excellent' visibility conditions, may be not significant under 'moderate', 'poor' or 'very poor' visibility conditions where there would be little to no visibility of the WTGs.

The nearest Met Office climate station to the offshore Project that records visibility data is located at Kirkwall Airport (approximately 58 km distance) in the north of Scotland. Visibility distance data obtained from the Met Office for the Kirkwall Airport climate station over a two year period (January 2021 to December 2022) is provided in Table 18-6.

Table 18-6 sets out the averaged frequency of possible visibility ranges that have occurred over the past two years for each month of the year (as a percentage). To produce the data, automated recordings of visibility are carried out by determining the concentration of aerosols from a captured sample of air between two lasers. This is equated to a distance from which a distinct object or skyline can be viewed. These data do not take account of varying conditions that may exist at certain distances offshore and may therefore provide a distorted picture of the actual visibility.

Table 18-6 Visibility distance for Kirkwall Airport Climate Station over a two-year period (2021 - 2022)

VISIBILITY (METRES)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG %
< 1,000 m 'very poor'	0.07	0.60	0.13	1.07	2.06	2.22	4.31	2.02	2.11	1.01	0.07	0.27	1.33
1,000-3,999 m 'poor'	2.23	1.94	2.35	2.99	2.68	2.29	6.02	3.97	4.50	3.65	5.57	1.34	3.30
4,000-9,999 m 'moderate'	6.76	6.11	10.82	8.83	9.00	8.69	12.18	7.81	11.81	9.20	10.79	4.77	8.90
10,000-19,999 m 'good'	12.03	14.37	18.75	20.37	20.34	20.08	14.24	10.77	15.53	14.21	21.29	10.69	16.06
20,000-39,999 m 'very good'	34.26	42.81	36.69	31.48	31.82	43.57	29.64	24.76	30.50	35.05	37.86	34.03	34.37
> or = 40 000 m 'Excellent'	44.66	34.18	31.25	35.26	34.09	23.14	33.61	50.67	35.56	36.87	24.43	48.89	36.05
TOTAL %	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
TOTAL OBVS	1,480	1,343	1,488	1,404	1,455	1,439	1,461	1,486	1,423	1,478	1,400	1,487	-

Table 18-6 shows that, during the summer / winter months (August / December), visibility over a greater distance has occurred more frequently than in comparison to the spring / autumn months (March / November).

The offshore Project is located approximately 24 km from the coast at its closest point, within a distance range of 20,000 – 39,999 m in Table 18-6, which illustrates that visibility over 20 km and up to 40 km has occurred for approximately 34% (i.e. 255 days of the year on average) from this part of the coast (Table 18-6). Excellent visibility beyond 40 km has occurred for approximately 36% of the time per year. However, where visibility is less than approximately 20 km from any part of the coast, the offshore Project would not be visible. These poor visibility conditions appear for approximately 29.6% of the time per year.

Met Office visibility data have limitations in its application to judgements about windfarm visibility. The visibility data above provides some understanding and evidence basis for evaluating the visibility of the WTGs against their background. Whilst this 'visibility' analysis is a useful indicator, other factors such as contrast (largely influenced by lighting by the sun), scale, orientation and movement of the structures also need to be considered when determining optimum visibility. Effects have not been downgraded either in magnitude or significance due to variations as a result of weather / visibility and how frequently / infrequently the effects will be experienced. Effects are based on the worst case with clear visibility and need to be considered in context of the limited time over which effects will actually occur.

18.4.5.3 Visual effects studies

The offshore Project located over 24 km from the coast would be seen on the horizon which is the furthest point on the sea surface that is seen. Generally, a person of average height can see up to 4.5 km at sea level. This is the best possible visibility at sea that one can have in good weather conditions. Actual distance to the horizon line increases with the elevation of the viewer. Visibility range is also influenced by the size and height of the object being viewed (see parameters of the WTGs in section 18.5.5). This difficulty of appreciating distance and by association, scale, presents a real challenge for an assessment. On indented coasts with bays and islands it may be easier to judge distance and size but only if the adjoining land offers clear clues as to scale. Typically houses and fields on the land, and boats or ships on the sea will assist, but where they are absent it can be very difficult to assess scale and distance when looking at rocks or undeveloped islands and/or the open sea.

There is no current study available on the visibility of the WTGs as large as proposed for the offshore Project due to the absence of any precedent being in place. However, there are two substantial studies, based on around 23 offshore windfarms produced by White Consultants, the first for Natural Resources Wales (NRW) in 2019 and the second for the Department for Business, Energy & Industrial Strategy (BEIS) for the UK OESEA 2020. It is considered that those values in NRW (2019) are relevant to Welsh waters and that those presented in White Consultants (2020) are relevant to English waters. While the analysis in White Consultants (2020) included windfarms in Scottish waters, this area was not covered by the programme. The assessments are however considered as a valuable data analysis for any offshore SLVIA.

The White Consultants Update of OESEA Seascape and Visual Buffer Assessment (2020) relating to potential effects of offshore wind energy development on designated landscapes in England and Wales reviewed several SLVIAs of offshore windfarms and utilised wirelines to explore the potential visual effects of WTGs 350 m and 400 m high to blade tip. For a sample 500 Megawatt (MW) windfarm, a small (or low) magnitude of effect was found beyond 35 km for 350 m or 400 m high WTGs. For the large windfarm scenario, a medium magnitude of effect was found beyond 24 km for 350 m or 400 m high WTGs. In relation to viewing windfarms from different heights (6 m, 22 m and 100 m Above Ordnance Datum (AOD)) the assessors found that the level of effects were the same for each height.

For Wales, NRW (2019)[20] indicated the average distance of 44 km for WTGs of 301-350 m for a low magnitude of effect, and the average distance of 32.8 km for a medium magnitude of effect.

[20] *Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance Stage 1- Ready reckoner of visual effects related to turbine size, Report No 315 (NRW 2019);*

'An assessment of the sensitivity and capacity of the Scottish seascape in relation to windfarms'[21] recognises that potential visual ranges in Scotland (as opposed to visibility dependent on weather conditions) are generally significantly higher than in England and Wales. The SNH 2005 study recommended a seaward outer limit of visual significance of 35 km for seascape units and landward limit of visual significance of 10 km, where the sea would play a diminished role in views meaning that it would be a landscape rather than seascape unit.

The Ireland Offshore Renewable Energy Development Plan SEA, 2010, relied on the DTI, 2005[22] report in terms of the likely visual buffers i.e., a 35 km seaward limit. The visual significance of a WTG beyond this distance was assumed to be negligible in most cases as the changes to the seascape will be very minor or imperceptible to the human eye (page 76). It stated that visibility may extend over longer distances in seascapes associated with high cliffs or steep hinterland.

Although the proposed WTGs are high structures it is worth bearing in mind that there is also a limit to the acuity of the human eye, despite the height. There will be a point where an object whilst still theoretically visible will become too vague for the human eye to resolve. Mist, haze, or other atmospheric conditions may significantly exacerbate that difficulty. According to the OESEA Seascape and Visual Buffer Assessment[23] the effects beyond 44 km from shore of most sizes of WTGs would be limited, although they may be visible in certain light and weather conditions. The absolute limit of visibility imposed by the limit of the horizon viewed across a flat plain is similar at approximately 46 km.

The UK OESEA Environmental Report (2022) (Table 5.26 – 'The influence of haze on viewable distance') provides the maximum likely viewable distance at which the outline of an object can be made out given a range of UK specific coefficients is 39 km for northern Scotland, which is 13 km longer than in the case of Wales and southern Scotland. In this case, the viewable distance can be taken to mean, "the maximum distance at which an observer can discern the outline of an object" The calculation of haze filters out any meteorological phenomenon which might also affect visibility (e.g. rainfall, fog) and therefore represents clear visibility.

In the Sectoral Plan Consultation – NatureScot Landscape and Visual Impact Assessment and Design Guidance (2022)[24] of the Draft Sectoral Marine Plan for Offshore Wind Energy (2019) areas a 50 km threshold has been put in place in order to avoid significant effects of 300 m high WTGs upon nationally important and distinctive landscape and seascapes, wildness and frontier qualities. This threshold has not been supported by any available studies and/or field surveys. The methodology[25] (paragraph 12-23) is based on the ZTV analysis. It is, however, a fact that ZTV

[21] *Scottish Natural Heritage 2005 An assessment of the sensitivity and capacity of the Scottish seascape in relation to windfarms Commissioned Report No. 103*

[22] *Guidance on the Assessment of the Impact of Offshore Wind Farms. Seascape and Visual Impact Report. (DTI, November 2005)*

[23] *White Consultants with Northumbria University, March 2020, OESEA, Review and update of Seascape and Visual Buffer study for Offshore Wind farms Final Report for Hartley Anderson*

[24] *'SNH Assessment of Potential Seascape, Landscape, and Visual Impacts, and Provision of Design Guidance' is part of Supplementary Advice to SNH Consultation Response to Marine Scotland's Draft Sectoral Plan for Offshore Wind (Dec 2019), available at https://www.nature.scot/doc/sectoral-plan-consultation-summary-and-design-guidance*

[25] *Sectoral Plan Consultation - SNH Landscape and Visual Impact Assessment and Design Guidance.pdf (nature.scot)*

production takes account of the earth's curvature, but not the distance, or the above considered factors, which affect actual visibility.

The Guide to Best Practice in Seascape Assessment (2001) discusses the limitations of the acuity of the human eye. The guidance states that: "*At a distance of 1 km in conditions of good visibility a pole of 100 mm diameter will become difficult to see, and at 2 km a pole of 200 mm diameter will similarly be difficult to see. In other words there will be a point where an object, whilst still theoretically visible, will become too small for the human eye to resolve. Mist, haze or other atmospheric conditions may significantly exacerbate that difficulty*." Consequently, when visible in favourable conditions, a slim object approximately 3 m in width will be at the limit of perception by the human eye at a distance of 30 km. An object would need to be greater than 5 m wide to be visible at or beyond 50 km. The nacelle and the blades could be visible at this distance. As the diameter of the tower of the proposed WTGs would be approximately 10 m, then according to this calculation the towers would be visible at or beyond 50 km.

However, a combination of the curvature of the earth and especially acuity of the eye would limit the potential for seascape, landscape and visual effects beyond 50 km.

SNH Visual Assessment of Windfarms: Best Practice (2002)[26] (para 3.4.8) states that the size of windfarm elements, and the distance between them and the viewer, are basic physical measures that affect visibility, but the real issue is human perception of visual effects, and that is not simply a function of size or distance. Para 5.2.12 states: *As distance increases, the eye cannot distinguish colour and all structures are seen as grey (this effect would apply whether the turbines were pale grey, yellow or blue). Light coloured (lit) turbines appear closer than grey (unlit) turbines at similar distances. Seen against a blue or pale sky, but not sunlit, grey turbines appear dark. As the sky darkens, because of cloud cover or time of day or season, the contrast between sky and turbines decreases and at long distances (e.g. over approximately 10 km) the turbines may become indistinct because of this. Turbines can appear white against a dark sky if they are lit by sun through patches of cloud. At shorter distances, the contrast between sky and turbines still decreases, but the reduction in visibility is much less because the eye and brain use more linked cues including colour and form and texture as well as contrast.*

The chartered landscape architects of this SLVIA have visited current UK operational offshore windfarms (including, Moray East, Walney & Extension, Burbo Bank & Extension amongst others) from coastal viewpoints with excellent visibility conditions as defined by Met Office. It was considered that visibility beyond 36 km is considerably reduced and it would be difficult to discern the outline of the structure such as the WTGs even if the height of the WTGs was to be doubled, especially in relation to the WTGs when the blades are parallel to the line-of-sight, as the width of the tower of the offshore Project WTGs would form a maximum of 1/36th of its tip height. Both parameters of the WTG should be taken into consideration when considering the likely viewing distance to the WTG. Also the relationship and distances in between the WTGs has an impact on their visual appearance; the WTGs have been sited along the perimeter of the OAA situated 1.3 km apart and within the OAA the WTGs have separation of 2.6 km.

[26] *University of Newcastle (2002) Visual Assessment of Windfarms Best Practice. Scottish Natural Heritage Commissioned Report F01AA303A.*

18.4.5.4 Conclusion

The SLVIA considers a "distance decay" phenomenon, in which viewers have a reduced capability to identify and recognise features such as the distance between the viewed object and the viewer increases.

Based on fieldwork observations, it determined that real visibility of the offshore Project would be more closely related and contained within the coastal edge of the study area, which at its closest to the offshore Project is approximately 24 km. This distance of up to 36 km is considered as a threshold on which the offshore Project would be likely to be seen by anyone looking briefly in the general direction of the offshore Project, without foreknowledge or actively looking. It is assumed that beyond 38-42 km this type of development would be visible when scanning or looking closely at the landscape, which is also a very common activity, especially in areas that are visually sensitive, or have high scenic quality, or both.

18.4.6 Baseline analysis

This section identifies those seascape, landscape and visual receptors which merit detailed consideration in the assessment of effects, and those which are 'scoped out' from further assessment as effects "have been judged unlikely to occur or so insignificant that it is not essential to consider them further" (GLVIA3 (Landscape Institute and IEMA, 2013), para 3.19). Reasoned justifications have been provided for the exclusion of landscape and visual receptors from further assessment, which only focuses on the likely significant effects.

18.4.6.1 Landscape character

The main sources for the landscape and coastal character baseline (as recommended in PFOW MSP) to inform judgements within the study area, are the Orkney landscape character assessment (1988), Caithness and Sutherland Landscape Character Assessment (LCA) (1998) reports and SNH digital map based national LCAs (published 2019)[27].

These regional scale characterisations generally also consider changes to landscape/seascape and forces for landscape/seascape change (i.e., what the drivers of these changes are). LCTs cover both terrestrial aspects of the landscape which may have little or no intervisibility with the coast, but also coastal areas, and it is also recognised that character and associations with the coast and seas may go beyond visual components of landscape and seascape.

LCTs are show in Figure 18.2. and Coastal Character Types in Figure 18.3 (SS19: SLVIA Baseline Figures). All character types are also shown with the ZTV overlay in Figures 18.11.1-18.11.3 (SS17: SLVIA ZTV and Visualisations Methodology).

[27] *Available at: https://www.arcgis.com/apps/webappviewer/index.html?id=e3b4fbb9fc504cc4abd04e1ebc891d4e&extent=-2030551.0017%2C6851563.2052%2C1100309.6769%2C8923312.4198%2C102100*

18.4.6.1.1 Sutherland and Caithness

The southern part of the study area encompasses the extreme north of the Scottish mainland / the northern area of Caithness and Sutherland, which together form an apparently simple landscape made up of different landscapes which gradually blend together over great distances, with wide open spaces and vast skies. "*Sometimes, land and sea seem to gradually extend up into the sky without any noticeable boundary, although in other places, distant hills appear to recline along the horizon like a stage backcloth*[28].

Sutherland presents apparent physical contrasts between the large areas of sweeping moorland (Sweeping Moorland and Flows LCT 134) throughout the western hinterland regions, where within the large tracts of open land, several prominent isolated hills (Lone Mountains LCT 138) and some remarkable mountains (Rugged Mountain Massif LCT 139) rise, in contrast to the fairly flat surroundings. Caithness, further east, is more fertile with a few lower hills appearing within a patchwork of agricultural fields. The wide expanse of the Caithness and Sutherland landscape is divided by straths (Strath - Caithness & Sutherland LCT 142) in a north south direction, which also accommodates main roads. Most of the population is spread along coastal areas and the agricultural areas (Farmed Lowland Plain LCT 143) of Caithness, with its eastern coast being well populated.

The offshore Project is located within the marine environment, approximately 23 km from the Sutherland coast. Therefore, all potential landscape effects attributable to the offshore Project would be indirect long-distance effects only. The assemblage of elements that would be indirectly affected by the offshore Project include both vegetation features and physical features, which serve to broadly provide a particular sense of landscape character. It is considered that the offshore Project would not affect perception of any hinterland LCTs, as the offshore Project would remain outside of the context as formed by the key characteristics of these LCTs. In views from the hinterland, the offshore Project would only appear in elevated distant views, which generally present an overview of several LCTs. The offshore Project (or part of it) would be visible mainly when the sea (a part of it) is also visible.

Table 18-7 provides justification for a number of LCTs being scoped out from the assessment.

Table 18-7 Sutherland and Caithness LCTs scoped out from the assessment

LCT	JUSTIFICATION FOR LCT BEING SCOPED OUT FROM THE ASSESSMENT
Sweeping Moorland and Flows (134)	The landscape is extensive across Caithness and east Sutherland, forming a flat, gently undulating and generally smooth landform. Windfarms, transmission lines, the A9 and a network of minor roads are key features within the more modified outer fringes within Caithness. Consistent views to the Caithness Lowlands to the east and distant Lone Mountains and Rugged Mountain Massif to the west. The views from both sides are through developing windfarm developments.

[28] *SNH Review 103 Caithness and Southerland*

LCT	JUSTIFICATION FOR LCT BEING SCOPED OUT FROM THE ASSESSMENT
	Scoped out of the assessment due to its large scale and long distance from the offshore Project, which cannot therefore affect perception of this LCT, one of the key features of which are already windfarms. Viewpoints 3, 8 and 16 are located within this LCT, representing visual receptors, all assessed as not significant effects.
Rounded Hills - Caithness & Sutherland (135)	The majority of the LCT is beyond 50 km, with very limited to no visibility of the offshore Project.
Rocky Hills and Moorland (136)	This Upland landscape, which provides the foreground to spectacular views over the coast and sea, forms a broad coastal band to the west of Bettyhill to Cape Wrath, and around the Kyle of Tongue and Loch Eriboll, and abuts, and partially overlaps, with the designated coast. It also provides views inland towards the Lone Mountains. Scoped out of the assessment due to its large scale, overall limited visibility and general long distance from the offshore Project. However, the coastal edge of the LCT is assessed as part of designated landscapes including Oldshoremore, Cape Wrath and Durness SLA, Eriboll East and Whiten Head SLA, Farr Bay, Strathy and Portskerra SLA, Ben Hope-Ben Loyal WLA and Kyle and Tongue NSA in section 18.6.2.6.
Lone Mountains (138)	The LCT comprises individual mountains which are isolated within large expanses of lower-lying open moorland, their distinctive profile being seen on the horizon in many key views across Caithness and Sutherland. Their peaks offer extensive views of the surrounding area including the distinctive watery landscape of the Flows. Scoped out of the assessment due to the long intervening distance (LCT extends mainly beyond 40 km from the OAA) from the offshore Project, which cannot therefore affect the perception of the distinctive profile of these Mountains or alter any of its other key characteristics. Views from Ben Hope and Ben Griam are represented by Viewpoints 2 and 11 respectively. Ben Hope is assessed as part of designated landscapes of Ben Hope-Ben Loyal WLA and Kyle and Tongue NSA in section 18.6.2.6.
Rugged Mountain Massif – Caithness & Sutherland (139)	This landscape has a strong sense of wild character, comprising high mountains with a rugged / complex form and massive scale. Scoped out of the assessment due to its large scale and distance (LCT extends mainly beyond 40 km from the OAA) from the offshore Project, which cannot therefore affect perception of this LCT or notably alter any of the key characteristics of the LCT.
Sandy Beaches and Dunes LCT (140)	This LCT consistently occurs along the east Sutherland coast between the Dornoch Firth and Brora. Areas at the mouths of Loch Fleet and the Dornoch Firth are particularly extensive. Around the north coasts of Caithness these LCTs are part of RCCA 45: Dunnet Bay and Thurso Bay and RCCA 47: Portskerra and are also assessed respectively in section 18.6.2.4.
Coastal edge High Cliffs and Sheltered Bays LCT (141)	This LCT is found along much of the coastline of north and west Sutherland and Caithness. The cliffs are particularly high and/or dramatic, distinguishing the areas from other LCT which abut the coast which have lower, more isolated cliff features. Around the north coasts of Caithness these LCTs are

LCT	JUSTIFICATION FOR LCT BEING SCOPED OUT FROM THE ASSESSMENT
	part of RCCA 45: Dunnet Bay and Thurso Bay and RCCA 46: Brims Ness and are also assessed respectively in section 18.6.2.4.
Strath – Caithness & Sutherland (142)	These narrow linear spaces are largely outwith the ZTV and have therefore been scoped out from the assessment. The coastal parts of the straths are defined as Coastal Croft & Small Farms LCT 144 which is assessed in section 18.6.2.3 effects on coastal character of Sutherland.
Farmed Lowland Plain (143) - Caithness	This generally open, low-lying plain is located in the far north-east of Caithness. It forms a broad and relatively low-lying plain bounded by the sea and expansive Sweeping Moorland and Flows. The LCT comes its closest to the offshore Project at Sandside Head at approximately 33 km distance. Scoped out of the assessment due to the long intervening distance from the offshore Project, which cannot therefore affect perception of this LCT or notably alter the key characteristics of the LCT. Viewpoints 10, 14, 18 and 19 are located within this LCT, representing visual receptors along the coastal strip which falls within this LCT (all assessed as not significant). The northern part of the Farmed Lowland Plain provides views to Dunnet Head and the distant Orkney islands. The offshore Project would not intervene in these views and therefore would not affect the key characteristics of the LCT.
Coastal Crofts & Small Farms LCT (144)	This LCT comprises a narrow, settled and farmed fringe around the coast of Caithness and Sutherland. It is largely continuous along the north coast of Sutherland and Caithness, but more intermittent west of Thurso where settlement occupies rare areas of more fertile land at river mouths and along the kyles and sea lochs of north-west Sutherland. Around the north coasts of Caithness these LCTs are part of RCCA 47: Portskerra and are also assessed respectively in section 18.6.2.4.

All hinterland LCTs related to Sutherland and Caithness have been scoped out from the detailed assessment, as explained above in Table 18-7. Based on field survey findings and due to the distance of the offshore Project from the coast only the coastal areas of the LCTs have been included in the assessment to focus on potentially significant effects.

The coastal parts of Rugged Mountain Massif – Caithness & Sutherland LCT (136) and Sweeping Moorland and Flows LCT (134) form part of THC SLAs as well as the Kyle of Tongue NSA, and which are assessed as part of these designated landscapes in section 18.6.2.6.

The following potentially affected small scale LCTs are included in the assessment of effects on coastal landscape character of Sutherland in Section 18.6.2.3:

- Sandy Beaches and Dunes LCT (140);
- Coastal Crofts & Small Farms LCT (144); and
- Coastal edge High Cliffs and Sheltered Bays LCT (141). (This LCT is assessed as part of Type 1: Remote High Cliffs).

The character of the coastal edge and its immediate hinterland of Caithness is described and identified in 'The Orkney and North Caithness Coastal Character Assessment' see section 18.4.6.2.2. Therefore the coastal area of Caithness has been assessed as defined RCCAs in section 18.6.2.4.

18.4.6.1.2 Orkney

The offshore Project is located within a marine environment approximately 27 km from Rora Head on Hoy and approximately 33 km from Breck Ness on the Orkney Mainland. Therefore, all potential landscape effects attributable to the offshore Project would be indirect long-distance effects (see above in relation to Sutherland / Caithness landscape).

Table 18-8 provides justification for LCTs being scoped out from the assessment.

Table 18-8 Orkney LCTs scoped out of the assessment

LCT	JUSTIFICATION FOR LCT BEING SCOPED OUT FROM THE ASSESSMENT
Whaleback Islands (296)	Although the western side of the island is located within the ZTV beyond 35 km distance, the offshore Project would not affect the island being seen as the focal point in views from other islands and therefore the LCT has been scoped out from further assessment.
Coastal Basin (301)	These two small LCTs of the West Orkney Mainland, are located approximately 35 km distance from the offshore Project. Potential effects are presented in the assessment of RCCA 26 Marwick Head and Bay of Skaill in Section 18.6.2.5.2.
Inclined Coastal Pasture (302)	The LCT next to the Hoy Sound consists of gently sloping agricultural land falling to the coast and includes bay coastlines which lack the topographic enclosure of the Enclosed Bays. Potential effects are presented by Viewpoint 24 in the assessment of RCCA 25 Breckness and Row Head in Section 18.6.2.5.1.
Enclosed Bays (305)	The LCT comprises three bays within the study area: Rackwick Bay on Hoy and on the West Orkney Mainland the Bay of Skaill and Birsay Bay, all of which are represented by Viewpoints (Viewpoints 21, 26 and 28). Potential effects are presented in the assessment of RCCA 26 Marwick Head and Bay of Skaill and RCCA 37 Rora Head and St John's Head in Section 18.6.2.5.
Coastal Hills and Heath (306)	The hills occur on the exposed west coast of West Orkney Mainland, providing expansive views of the coastline, other islands and the sea. The hills meet the sea at dramatic cliffs on the west of Orkney Mainland forming part of the adjoining Cliffs – Orkney LCT (307), which lines the coastal edge. The LCT has expansive scale and is over 33 km from the offshore Project. Potential effects are presented in the assessment of RCCA 25 Breckness and Row Head in Section 18.6.2.5.
Cliffs Orkney (307)	This LCT occurs as narrow cliff-tops above dramatic rocky vertical cliffs mainly along the western coastal edge of high hills on Hoy and West Mainland. Potential effects are presented in the assessment of its overlapping RCCAs of RCCA 25 Breckness and Row Head, RCCA 26 Marwick Head and Bay of Skaill, RCCA 36 West Hoy Cliffs and RCCA 37 Rora Head and St John's Head in section 18.6.2.5.

LCT	JUSTIFICATION FOR LCT BEING SCOPED OUT FROM THE ASSESSMENT
Loch Basin – Orkney (310)	The LCT forms large scale, shallow depressions containing most of Orkney's large fresh water and tidal lochs enclosed by low hills. The LCT contains Neolithic Orkney WHS. It is largely outwith the ZTV (see Figure 18.11.3) and has therefore been scoped out from the assessment.
Plateau Heaths and Pasture (312)	This open and exposed LCT occurs near the coast of northern Hoy at a distance of 30 km from the offshore Project. The ZTV is limited to the coastal edge, which is orientated to Hoy Sound to the north Potential effects are presented in the assessment of RCCA 37 Rora Head and St John's Head in section 18.6.2.5.
Moorland Hills – Orkney (314)	On Hoy this type is extensive and wild and adjoins the dramatic coastal of Cliffs – Orkney LCT 307 on Hoy. The ZTV pattern is limited to the northwest facing slopes up to 35 km distance from the offshore Project, which cannot therefore affect the perception of this LCT or alter the key characterstics of the LCT Potential effects on its coastal edge are presented in the assessment of RCCA 36 West Hoy Cliffs in section 18.6.2.5. On West Orkney Mainland this type forms a central spine and is surrounded mainly by Rolling Hill Fringe. Scoped out of the assessment due to its large scale and long distance of over 40 km from the offshore Project, which cannot therefore affect perception of this LCT or alter the key characterstics of the LCT.
U-Shaped Valley (315)	The LCT is largely outwith the ZTV (see Figure 18.11.3) and has therefore been scoped out from the assessment.
Rugged Hills (316)	This LCT occurs on north Hoy and constitutes two distinct areas of hill land divided by a u-shaped valley. It includes the highest land in Orkney, emphasised by the 335-metre vertical drop to the sea at St. John's Head on the west coast, within the adjoining Cliffs – Orkney LCT 307. Potential effects are presented in the assessment of its adjacent RCCA 37 Rora Head and St John's Head in section 18.6.2.5.

All hinterland LCTs related to Hoy and West Orkney Mainland have been scoped out from the detailed assessment, as explained above in Table 18-8 above. Based on field survey findings and due to the distance of the offshore Project from the coast only the coastal areas of the LCTs have been included in the assessment to focus potentially significant effects.

The character of the coastal edge and its immediate hinterland of Hoy and West Orkney Mainland is described and identified in 'The Orkney and North Caithness Coastal Character Assessment' and for this assessment in section 18.6.2.5. Therefore the coastal areas of Hoy and West Orkney Mainland have been assessed as defined RCCAs in section 18.6.2.5.

The coastal edges of the following LCTs are considered as part of the relevant RCCA:

- Coastal Basin LCT (301) as part of RCCA 26 Marwick Head and Bay of Skaill;
- Inclined Coastal Pasture LCT (302) as part of RCCA 25 Breckness and Row Head;
- Enclosed Bays LCT (305) as part of RCCA26 Marwick Head and Bay of Skaill and RCCA37 Rora Head and St John's Head;

- Coastal Hills and Heath (306) as part of RCCA 25 Breckness and Row Head;
- Cliffs Orkney (307) as part of RCCA 25 Breckness and Row Head, RCCA 26 Marwick Head and Bay of Skaill, RCCA 36 West Hoy Cliffs and RCCA 37 Rora Head and St John's Head;
- Plateau Heaths and Pasture (312) as part of RCCA 37 Rora Head and St John's Head;
- Moorland Hills – Orkney (314) as part of RCCA 36 West Hoy Cliffs; and
- Rugged Hills LCT (316) as part of RCCA37 Rora Head and St John's Head.

18.4.6.2 Coastal character

Many different features influence the character of the coast. This part of the North Atlantic is wide, open and expansive. On calm days the sea may appear tranquil, at other times choppy, and a deep swell is often evident. Towards the high coastal cliffs, the sea becomes turbulent with tidal currents, and large waves crash against the rocky coasts. The local character of the coast is determined by the nature of both the land and sea and also through being influenced by human activity and land use. These range from enormous, towering cliffs to wide, sandy bays and raised beach platforms, and from extensive dunes and links, to rocky, interlocking coasts with a scattering of islands.

The coastal character types are defined and described in the SNH digital national LCTs (published 2019). These character types are shown in Figure 18.2 (SS19: SLVIA Baseline Figures).

In relation to Caithness and Orkney 'The Orkney and North Caithness Coastal Character Assessment'[29] provides an assessment associated specifically with the coast, such as marine influences and the character of the coastal edge and its immediate hinterland. These character types are shown in Figure 18.3. However, this assessment does not cover Sutherland coast and therefore in addition to the LCTs the national coastal character types referred to in SNH Guidance Note (2017)[30], and the description of which are available in SNH Commissioned Report No. 103 (2005)[31], were reviewed and included in Figure 18.3 (SS19: SLVIA Figures).

Coastal Character Types are show in Figure 18.3. and with the ZTV overlay in Figures 18.11.1-18.11.3 (SS19: SLVIA Figures).

Separate coastal character assessments are provided for Sutherland, Caithness and Orkney.

18.4.6.2.1 Sutherland

Much of this coastline comprises high cliffs and rocky shores, with occasional sheltered bays and inlets, including Balnakeil Bay, Tongue Bay, Torrisdale Bay and Strathy Bay, and Sandside Bay. The character of the northern coast of Sutherland, tends to be noted for its high cliffs which tower above rough seas. Upon the edge of these cliffs, distant and elevated views extend far across the sea. Beaches occur at regular intervals, interspersed with headlands, often

[29] *Scottish Natural Heritage, August 2016, Orkney and North Caithness Coastal Character Assessment Prepared by LUC for SNH available at https://www.nature.scot/doc/coastal-character-assessment-orkney-and-north-caithness*

[30] *Scottish Natural Heritage (2018). Guidance Note – Coastal Character Assessment – Version 1a*

[31] *Scottish Natural Heritage Commissioned Report No. 103 (ROAME No. F03AA06)*

located within inlets, where a strath or glen intercepts the coastal cliff edge, appearing almost like an oasis within the harsh, exposed surrounding landscape.

The northern coast of Sutherland is identified as Area 9: Kyles and Sea Lochs within the SNH Commissioned Report No. 103. National coastal character Type 1: Remote High Cliffs apply to this seascape unit and is equivalent to the SNH Coastal edge High Cliffs and Sheltered Bays LCT (141) which is assessed together in section 18.6.2.3.1. Other National coastal character types included in the assessment are Type 7: Kyles and Sea Lochs.

Table 18-9 reports on the SNH coastal LCTs and coastal character areas in Sutherland relevant to the offshore Project.

Table 18-9 Sutherland Coastal Character areas relevant to the offshore Project

COASTAL CHARACTER	DESCRIPTION
Type 1: Remote High Cliffs **(Coastal edge High Cliffs and Sheltered Bays LCT) (141))**	The coastal character / LCT abuts with the sea along much of the coastline of north Sutherland. The cliffs are particularly high and/or dramatic, distinguishing the areas from other LCTs which abut the coast which have lower, more isolated cliff features. Viewpoints 1 and 6 are located within this coastal character / LCT.
Type 7: Kyles and Sea Lochs	This Type includes the Kyle of Durness, Loch Eriboll and Kyle of Tongue. Viewpoint 17 represents the Kyle of Tongue.

The coastal LCTs of Sutherland in Table 18-9 above are included in the assessment in section 18.6.2.3.

The following small scale LCTs are included in the assessment of effects on coastal landscape character of Sutherland in section 18.6:

- Sandy Beaches and Dunes LCT (140);
- Coastal Crofts & Small Farms LCT (144); and
- Coastal edge High Cliffs and Sheltered Bays LCT (141). (This LCT is assessed as part of Type 1: Remote High Cliffs).

The coastal parts of Rugged Mountain Massif – Caithness & Sutherland LCT (136) and Sweeping Moorland and Flows LCT (134) form part of THC SLAs as well as the Kyle of Tongue NSA, and which are assessed as part of these designated landscapes in section 18.6.2.6. (Due to the distance of the offshore Project from the coast only the coastal areas of the LCTs have been included in the assessment to focus potentially significant effects).

18.4.6.2.2 Caithness

The Caithness coast is generally a simple rolling landform, although it is indented in some places with dramatic high cliffs on headlands such as Dunnet Head. The generally open and exposed nature of this coastline is highlighted by

the openness of the farmland that forms the immediate hinterland, and where tree cover is sparse. Views to the north and north-west towards the offshore Project are predominantly drawn out across the featureless expanse of the Atlantic Ocean/North Sea, while views to the northeast extend across the Pentland Firth to the Orkney Islands.

Table 18-10 reports on the SNH RCCAs in Caithness relevant to the offshore Project.

Table 18-10 Caithness Coastal Character areas relevant to the offshore Project

RCCA	DESCRIPTION
RCCA 47 Portskerra	This RCCA lies on the north coast of Caithness and extends from Crosskirk Bay in the east to Portskerra in the west. The area includes Melvich Bay and Sandside Bay, and notable industrial development at Dounreay.
RCCA 46 Brims Ness	This RCCA lies on the north coast of Caithness. It extends from Holborn Head in the east to Crosskirk Bay in the west and includes the headland at Brims Ness. Viewpoint 10 represents this RCCA.
RCCA 45 Dunnet Bay and Thurso Bay	This RCCA on the north Caithness coast extends from Donald Gear's Geo on the Dunnet Head peninsula in the east to Holborn Head in the west and encloses the broad convex bays of Thurso Bay and Dunnet Bay, as well as the smaller Murkle Bay. Viewpoint 12 is located within this RCCA.
RCCA 44 Scarfskerry and Dunnet Head	Located on the north coast of Caithness this coast extends from Head of Crees in the east to Donald Gear's Geo in the west and includes the peninsula of Dunnet Head and the smaller headlands at Scarfskerry Point and St John's Point. Viewpoints 13 and 15 are located within this character area.

The RCCAs of Caithness in Table 18-10 above are assessed in section 18.6.2.4. A few character areas which are located beyond 50 km distance from the offshore Project are excluded from further assessment, such as RCCA 43 Gills Bay and John o' Groats, RCCA 42 Duncansby Head, RCCA 41: Stroma and RCCA 40 Brough Ness and Barth Head due to the long intervening distance and limited visibility.

18.4.6.2.3 Orkney

The Hoy coastline is described as having elevated and exposed high cliffs, with steep slopes and sheer rock faces, with narrow shingle beaches at the base of the cliffs. The western mainland Orkney coastline comprises high, rugged indented cliffs, with distinctive features. It is more undulating compared to Hoy, the highest point being Ward Hill at 269 m AOD near Orphir. There are only small settlements along this elevated and exposed coastline, with residential dwellings being limited to small farms.

Table 18-11 reports on the West of Orkney Mainland and Hoy coastal character areas relevant to the offshore Project.

Table 18-11 Orkney Coastal Character areas relevant to the offshore Project

RCCA	DESCRIPTION
RCCA 24 Stromness and Clestrain Sound	This RCCA is located on the south-west coast of the Orkney Mainland and is generally south and south-west facing. It extends from Skerry of Ness in the west to Houton Head in the south-east, including Stromness Harbour, the Inner and Outer Holms, Bay of Navershaw, and Bay of Ireland.
RCCA 25 Breckness and Row Head	This RCCA is located on the south-west coast of the Orkney Mainland. It extends from the Point of Ness south of Stromness, to Hole o' Row near Bay of Skaill. The area includes numerous headlands including Breckness, Neban Point, Brough of Bigging at Yesnaby, Inga Ness and Row Head.
RCCA 26 Marwick Head and Bay of Skaill	This RCCA is located on the west coast of the Orkney Mainland. It extends from the Bay of Skaill in the south to Skidge near Birsay Bay in the north. The area includes the headlands of Point of Howana Geo, Outshore Point and Marwick Head, as well as the Bay of Skaill and Marwick Bay.
RCCA 29 Graemsay	The island of Graemsay is located between Mainland Orkney to the north and Hoy to the south. This RCCA covers the full extent of the coast of Graemsay, which is around 3 km in length.
RCCA 36 West Hoy Cliffs	This RCCA lies on the south-west coast of Hoy and extends from Tor Ness in the south to Rackwick in the north. The area includes Rackwick Bay and the remote cliffs to the south, including Sneuk Head, Little Rackwick and Ha Wick.
RCCA 37 Rora Head and St John's Head	This area occupies the western-most coasts of Hoy, from Rackwick in the south to Out Taings near Braebuster in the north. It includes the headlands of the Kame of Hoy, St John's Head, Rora Head and the Old Man of Hoy.

The RCCAs of West Orkney Mainland and Hoy in Table 18-11 above are included in the assessment in section 18.6.2.5. Most of these RCCAs (RCCA24, RCCA25, RCCA29, RCCA36 and RCCA37) form part of the Hoy and West Mainland NSA, which is assessed in section 18.6.2.6.

18.4.6.3 Landscape designations and Wild Land Areas

The value of the landscape is recognised through statutory designations. Much of the study area is designated to at least some level, from international to local level. Several landscape designations overlap with the coast and are illustrated in Figures 18.4 (SS19: SLVIA Figures).

18.4.6.3.1 National Scenic Areas (NSA)

Legislation defines a NSA as an area "of outstanding scenic value in a national context". The designation's purpose is both to identify the finest scenery and to ensure its protection from inappropriate development. The landscape qualities that make each NSA special have been identified as Special Qualities "the characteristics that, individually or

combined, give rise to an area's outstanding scenery". The special qualities are provided in 'The special qualities of the National Scenic Areas'[32] SNH Commissioned Report No.374.

The study area includes three NSAs. The Kyle of Tongue and Hoy and West Mainland NSAs about the coast, whilst the North West Sutherland NSA is located inland approximately 40 km distance from the offshore Project and does not have a strong relationship with the north coast in relation to its SLQ. The ZTV indicates very limited to no visibility from much of the NSA and therefore it has been excluded from further assessment. The scoping out of the North West Sutherland NSA has been agreed with NatureScot on 31st May 2023.

Table 18-12 reports on the NSAs relevant to the offshore Project. Landscape designations are illustrated in Figure 18.4. and on the ZTV overlay in Figures 18.11.1-18.11.3 (SS19: SLVIA Figures).

Table 18-12 NSA relevant to the offshore Project

NSA	DESCRIPTION
Kyle of Tongue NSA **24 km from the OAA**	This area extends from the east shore of Torrisdale Bay in the east, westwards along the coast including Neave Island, Eilean nan Ron and the Rabbit Islands to Portvasgo in the west. The NSA comprises the shallow sea loch the Kyle of Tongue which extends inland for 12 km, where it takes in the nearby mountains of Ben Hope and Ben Loyal which stand isolated above the open moorland. The NSA contains several LCTS, such as Lone Mountains, Rocky Hills and Moorland, High Cliffs and Sheltered Bays, Coastal Crofts & Small Farms. Viewpoints 2, 5 and 17 are located within the Kyle of Tongue NSA, illustrating viewers (visual receptors) experience of its distinctive landscape features.
Hoy and West Mainland NSA **26 km from the OAA**	This area comprises the hills of North Hoy, which dominate the Orkney scene. North Hoy has a particularly strong visual inter-relationship with the south-west mainland of Orkney around the basin of the Loch of Stenness which is enclosed by low rolling hills. This landscape culminates in the wester cliffed headlands against the sea, which break through at Hoy Sound. The NSA contains several LCTS, such as Cliffs – Orkney, Moorland Hills, U-Shaped Valley, Rugged Hills, Plateau Heath and Pasture, Enclosed Bays, Whaleback Islands, Rocky Coastal Pasture, Inclined Coastal Pasture, Coastal Hills and Heath, Rolling Hill Fringe. Viewpoints 21, 22, 24 and 25 are located within the Hoy and West Mainland NSA, representing the character of its coastal edge and marine influences.

The effects of the SLQ of the Kyle of Tongue and Hoy and West Mainland NSAs are included in the assessment in section 18.6.2.6.2.

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

18.4.6.3.2 Highland council Special Landscape Areas (SLA)

Most of the northern coast of Sutherland is locally designated as SLA. These are regionally valuable landscapes identified to protect and enhance landscape qualities and promote their enjoyment. HwLDP Policy 57 Natural, Built and Cultural Heritage[33] and the associated appendix item for SLAs provide the planning policy context.

Landscape designations are illustrated in Figures 18.4 and superimposed with ZTV in Figures 18.11.1-18.11.3 (SS19: SLVIA Figures).

Six SLAs are within the study area, being defined in varying proximity to the coast. Three SLAs, Ben Klibreck and Loch Choiret SLA, Ben Griam and Loch nan Clar SLA, Flow Country and Berriedale Coast SLA and Duncansby Head SLA are scoped out from further assessment, due to the long intervening distance of over 50 km and overall limited visibility of the offshore Project. The remaining SLAs are narrow bands (1.5 km up to 5 km in depth, including the water margin) attached to the northern coast of Sutherland and Caithness.

The following descriptions of the relevant SLAs to the offshore Project in Table 18-13 are drawn from the 'Assessment of Highland SLAs[34].

Table 18-13 Sutherland and Caithness SLA included in the assessment

SLA	DESCRIPTION
Oldshoremore, Cape Wrath and Durness SLA **25 km from the OAA**	This area of remote and varied coastline forms the north-west extremity of the Scottish mainland. The area extends around the headland of Cape Wrath along the coastline from Oldshoremore in the west to Durness in the north-east. The SLA is known for the rugged cliffs around Cape Wrath, dune systems at Faraid Head, and an extensive, sheltered inter-tidal area at the Kyle of Durness. Much of this area is distant from roads and is valued for its sense of remote isolation. The LCTs found in this SLA are Rocky Hills and Moorland, High Cliffs and Sheltered Bays, Coastal Crofts & Small Farms, Sandy Beaches and Dunes. Viewpoint 1 is located within the SLA and represents visitors of Faraid Head.
Eriboll East and Whiten Head SLA **23 km from the OAA**	Located on the north coast of Sutherland near Durness, this area covers the whole eastern shore of Loch Eriboll, extending from the head of the Loch to Whiten Head and then eastwards along the steep coast of Rubha Thormaid to the bay at Strathan. The area embraces dramatic cliffscapes, sheltered loch and open coastal waters, and exceptional framed views to neighbouring mountains. The LCTs found in this area are High Cliffs and Sheltered Bays, Rocky Hills and Moorland, Coastal Crofts & Small Farms. Viewpoint 4 is located within the SLA and represents visitors of Achininver Beach.

[33] *Technical Appendix 6.1 The Highland-Wide Local Development Plan Policies Available at https://www.highland.gov.uk/*

[34] *THC, SNH, June 2011, Assessment of Highland Special Landscape Areas Commissioned Horner + Maclennan with Mike Wood, Landscape Architect*

SLA	DESCRIPTION
Farr Bay, Strathy and Portskerra SLA **24 km from the OAA**	This area extends along the north coast of Sutherland from Bettyhill in the west to Melvich in the east and includes moorland and crofting areas. This area is characterised by its dramatic, deeply indented coastline of rocky headlands and sheltered bays, backed by a colourful and diverse mosaic of moorland and crofting landscapes. Big skies, combined with the ever-changing effects of the northern coastal light, create the impression of great space and dynamism. Fine weather allows impressive and extensive views, including northwards across the sea to Orkney and along the coast to Cape Wrath and Dunnet Head. The LCTs found in this area are High Cliffs and Sheltered Bays, Coastal Crofts & Small Farms and the coastal edge of Rocky Hills and Moorland LCT. Viewpoint 6 is located within the SLA and represents visitors to Strathy Point.
Dunnet Head SLA **38 km from the OAA**	This area covers the Dunnet Head peninsula and the adjoining part of Dunnet Bay, including the settlements of Dunnet and West Dunnet, approximately 39 km from the offshore Project. This area includes the most northerly point on mainland Britain. The peninsula is characterised by its prominent headland, striking vertical cliffs and expanse of isolated moorland. Dunnet Head juts out into the Pentland Firth, so that experience at its northern tip is one of being more at sea than on land. Clear weather allows impressive and extensive views over land and sea to Orkney, Strathy Point, Cape Wrath, Duncansby Head and the distinctive range of hills within the flow country, including the peaks of Morvern, Maiden Pap and Scaraben to the south. The SLA comprises four LCTs: Sweeping Moorland and Flow, Coastal Crofts & Small Farms, High Cliffs and Sheltered Bays, Sandy Beaches and Dunes. Only the latter two falling partially within the ZTV (see Figure 18.11.2). Viewpoints 12 and 13 are located within the SLA and represent visitors to Dunnet Bay and Dunnet Head.

All THC SLA listed in Table 18-13 above are included in the assessment in section 18.6.2.6.1.

18.4.6.3.3 Wild Land Areas (WLA)

WLA are the most extensive areas of high wildness; more natural, remote and uninhabited landscapes whose strength and extent of wildness is considered to be of national importance. WLAs have not been identified on scenic grounds and are not a statutory designation.[35] Policy 4(g) of NPF4 states that '*Buffer zones around wild land will not be applied, and effects of development outwith wild land areas will not be a significant consideration.*'

There are seven WLAs within the 60 km study area, being defined in varying proximity to the coast which are illustrated in Figure 18.4. A summary in relation to each WLA has been provided in the Table 18-14 below.

A Wild Land Assessment, as agreed with NatureScot on 31st May 2023, has been scoped out of this assessment. However, NatureScot requested that where WLAs and NSAs overlap, the AESLQ assessment should draw on

[35] *Available at https://www.nature.scot/doc/wild-land-areas-map-and-descriptions-2014*

underlying attributes and responses of the WLA, where these are exhibited to inform a single assessment. This assessment has been provided in section 18.6.2.6 in relation to the Kyle of Tongue NSA and Hoy and West Mainland NSA, which comprise parts of the Ben Hope - Ben Loyal and Hoy WLAs.

Table 18-14 WLAs Scoped out of the assessment

WLA	JUSTIFICATION FOR WLA SCOPED OUT FROM THE ASSESSMENT
Foinaven – Ben Hee WLA (37) **26 km from the OAA**	The WLA extends from the peatlands of Crask in the south-east to the mountain of Foinaven in the north-west, located approximately 26 km from the offshore Project. The northern half of the WLA mainly comprises a complex range of high mountains in addition to a peninsula of lower hills extending towards Durness. The WLA's scenic qualities are recognised by its inclusion in part within the North-West Sutherland NSA. The particular wild land qualities of the WLA include high, rocky mountains with long, complex and narrow ridges, and some very remote tops where there is a strong sense of risk. Some people aim for the seven Corbetts that have strong landmark qualities, such as Foinaven, Arkle, Cranstackie and Ben Hee. Perception / appreciation of this WLA is in views in the opposite direction to the offshore Project, which would have no effect on its wild land qualities. Therefore, along with the long intervening distance and limited visibility, it is scoped out of the assessment.
Ben Hope - Ben Loyal WLA (38) **33 km from the OAA**	This WLA extends across north Sutherland, from the Kyle of Tongue in the north to Loch Meadie in the south, and between the distinctive and prominent mountains of Ben Hope in the west and Ben Loyal in the east. The scenic value of the WLA is recognised by its northern part being located within the Kyle of Tongue NSA. It is located approximately 33 km from the offshore Project with visibility largely limited to some elevated locations. This WLA provides a striking, awe inspiring contrast between isolated mountains and open peatland. Perception / Appreciation of this WLA is in views in the opposite direction to the offshore Project, which would have no effect on its wild land qualities. Therefore, along with the long intervening distance and overall limited visibility, it is scoped out of the assessment. It should be noted that the Space Hub Sutherland will be located on the northern boundary of this WLA. Viewpoint 2 represents the overlap of the WLA with NSA in views from Ben Hope (assessed as not significant).

WLA	JUSTIFICATION FOR WLA SCOPED OUT FROM THE ASSESSMENT
East Halladale Flows WLA (39) **35 km from the OAA**	The WLA extends across Caithness and the eastern edge of Sutherland, between Reay in the north, Strath Halladale in the west, and Ben Dorrery in the east. The wide openness of the peatland allows for extensive and far-reaching views – across the WLA, and also towards the margins and beyond. Within these views, the simplicity of the landcover means it is typically difficult to perceive scale and distance, so the area often appears more extensive than it actually is. Within the open views, distant mountains often form key foci and landmarks. In some places, these views also include human artefacts that are tall or elevated, and thus appear prominent in contrast to the horizontal emphasis of the peatlands. These elements are mainly located at or beyond the edge of the WLA and include high voltage power lines, windfarms, telecom masts, fences and conifer trees. Where visible across the open expanse of the WLA, these elements can seem to shrink the perceived extent of the area. Given the long intervening distance of over 35 km and overall limited visibility of the offshore Project, this WLA is scoped out of the assessment on the basis that the wild land qualities would be unaffected. Viewpoint 8 from the top of Beinn Ratha illustrates the developed cumulative windfarms around the East Halladale Flows WLA, with the Limeklin WTGs standing on the boundary immediately to the east (assessed as not significant).
Cape Wrath WLA (40) **29 km from the OAA**	The WLA extends across rolling hills and peatland of Sutherland, the most northern mainland WLA and one of only three mainland areas that are partly defined by the coast. The scenic value of the Cape Wrath coast is recognised by its inclusion within the Oldshoremore, Cape Wrath and Durness SLA. This WLA is strongly influenced by the sea with its juxtaposition increasing the perceived extent of the area as well as the sense of naturalness. The towering, rugged cliffs are seen most clearly from the sea or where there is an intersecting glen. From the cliff-tops and the area above, they are hidden by 'dropping away' below. The WLA interior is not easy to see from its edges, due to screening by the outside hill slopes and sea cliffs. Perception / Appreciation of this WLA is in views in the opposite direction to the offshore Project, which would have no effect on its wild land qualities. Therefore, along with the long intervening distance of over 29 km and overall limited visibility, it is scoped out of the assessment. The coastal area of the WLA, however, overlaps with Oldshoremore, Cape Wrath and Durness SLA, and would be assessed in section 18.6.2.6.1 as part of the SQs of the SLA.
Hoy WLA (41) **31 km from the OAA**	Hoy WLA centres on the central upland area of Hoy comprising Knap of Trowieglen and Withl Gill, extending west to incorporate the dramatic cliff coastline extending south between Rackwick and Little Rackwick. The area includes the interior hills of the island and is defined in part by the coast, with limited access from the road. The high hills and cliffs of Hoy stand out within an archipelago of otherwise low-lying islands, forming an undeveloped backdrop to adjacent coastal communities and roads. During good visibility, the hills and western cliffs are also very prominent from Caithness and the ferry between Scrabster and Stromness, from which their towering height seems awe-inspiring. The northern part of the WLA lies within the Orkney NSA, whose description highlights that '*...with their towering red cliffs, the Atlantic coastline creates a spectacular scene...*' The described qualities of the Hoy WLA are related in views towards the coast of Hoy, in which the offshore Project would not intervene and therefore would not affect its wild land qualities. It is therefore scoped out of the assessment.
Ben Klibreck - Armine Forest WLA **52 km from the OAA**	This large WLA extends for 530 km^2 across central Sutherland between the settlements of Lairg, Altnaharra and Kinbrace. Only its northern edge falls within the Study Area. Due to the long intervening distance being located over 52 km and very limited to no visibility of the offshore Project. the WLA is scoped out from further assessment.

WLA	JUSTIFICATION FOR WLA SCOPED OUT FROM THE ASSESSMENT
Causeymire -Knockfin Flows WLA 52 km from the OAA	This large WLA covers 514 km^2 of southern Caithness and the eastern fringe of Sutherland, extending across the interior peatlands between Forsinard in the north, Causeymire in the east, the Strath of Kildonan in the west, and Braemore and the hills above Helmsdale in the south. Only its north western edge falls within the Study Area. Due to the long intervening distance being located over 52 km and very limited to no visibility of the offshore Project. the WLA is scoped out from further assessment.

18.4.6.4 Designated heritage assets

Chapter 13: Terrestrial archaeology and cultural heritage provides relevant background information in relation to WHS and Gardens and Designed Landscapes (GDLs) which are relevant to the SLVIA.

Effects on views from these designated heritage assets are also considered within this category where they are known as tourist destinations and/or form part of the landscape character.

Designated heritage assets are shown on Figure 18.4, alongside the Landscape Designations and WLA (SS19: SLVIA Baseline Figures).

18.4.6.4.1 Heart of Neolithic Orkney World Heritage Site

WHS are described by United Nations Educational, Scientific and Cultural Organization (UNESCO) as exceptional places of 'outstanding universal value' and 'belonging to all the peoples of the world, irrespective of the territory on which they are located'. The UNESCO seeks to protect and preserve such sites through an international treaty called the Convention concerning the Protection of the World Cultural and Natural Heritage, drawn up in 1972. Once a WHS is inscribed, under the Convention, member states have a duty to protect, conserve and present such sites for future generations.

Figure 18.4 illustrates the Orkney Mainland and the northern part of Orkney located within the Heart of Neolithic Orkney World Heritage Site (HoNO WHS) Sensitive Area, which contains the HoNO WHS within a Buffer Zone. The Buffer Zone and Sensitive Area indicate areas where the potential effects on the WHS and its Setting should be taken into account by developers and decision-makers, and act as a trigger for consultation. The HoNO WHS consists of the group of Neolithic monuments[36]. These are the Ring of Brodgar, Stones of Stenness, Maeshowe and Skara Brae.

Although the WHS is not a landscape designation and its setting is assessed in chapter 13: Terrestrial archaeology and cultural heritage, there is an overlap of Cultural Heritage and SLVIA, as in this case, the HoNO WHS Sensitive Area forms part of the landscape character and the monuments are tourist destinations.

[36] *https://whc.unesco.org/en/list/514/*

Although the four monuments which make up the Heart of Neolithic Orkney do not fall within the ZTV, visibility is indicated within the WHS Buffer Zone. As in this case the offshore Project is located at a considerable distance from the shore (over 27 km) and cannot be attributable to any direct effects. The HoNO WHS is therefore excluded from further assessment. Further consideration is provided in chapter 16: Marine archaeology and cultural heritage.

The WHS Sensitive Area has added value to the landscape and visitor interest, which is reflected in the assessment in section 18.6. and Viewpoint Assessment in SS16: SLVIA Viewpoint Assessment. Viewpoints 23, 24, 25, 26, 27 and 27 are located within the HoNO WHS Sensitive Area. Viewpoint 26 to the north of Skara Brae is located within the HoNO WHS Buffer Zone. However, Skara Brae itself is located, outwith the ZTV, on the edge of the Bay of Skaill within a horseshoe of hills which surround the bay and close off views into and out of the monument.

18.4.6.4.2 Historic Gardens and Designed Landscapes (GDLs)

The Inventory of Gardens and Designed Landscapes[37] managed by Historic Environment Scotland includes private gardens, parks, country estates and botanical gardens. GDLs are not statutory designated landscapes. The GDLs are identified in the Inventory with notes of specific qualities attributable to each inventory property, The reason for their inclusion on the register is quoted on the Historic Environment Scotland website. Generally, GDLs are Cultural Heritage receptors and there is an overlap with the SLVIA where their designated aspect includes designed views, vistas and the property is itself a feature of the surrounding landscape.

The following three GDLs have been identified within the SLVIA study area and are shown on Figure 18.4 and Figures 18.11.1-18.11.3 (SS19: SLVIA Figures):

- Tongue House (GDL00375)[38] is located at a distance of approximately 32 km to the south of the offshore Project;
- The Castle of Mey (Barrogill Castle, GDL00096)[39] (Viewpoint 14 (Figure 18.VP14a-d) is located at a distance of approximately 47 km to the south east of the offshore Project; and
- Balfour Heritage Centre (GDL00038)[40] lies approximately 58 km to the east of the offshore Project.

Of the three GDLs, Balfour Heritage Centre is located outwith the ZTV and is therefore excluded from further assessment. Tongue House and Castle of Mey GDLs are assessed in section 18.6.2.7.

18.4.6.5 Visual receptors

Visual receptors are "*the different groups of people who may experience views of the development*" (GLVIA3 (Landscape Institute and IEMA, 2013) para 6.3). In order to identify those receptors who may be significantly affected, ZTV studies, baseline desk study, field-based observations and consultation with stakeholders has been carried out.

[37] *http://portal.historicenvironment.scot*

[38] *http://portal.historicenvironment.scot/designation/GDL00375*

[39] *http://portal.historicenvironment.scot/designation/GDL00096*

[40] *http://portal.historicenvironment.scot/designation/GDL00038*

Key visual receptors are assessed under the following categories:

- Settlements across the coastal areas;
- Recreational users of the landscape: residents or visitors accessing the coast at beaches, including those using Core Paths and cycle routes, as well as hill walkers;
- Recognised scenic drives / routes (the scenic road North Coast 500 (A838 and A836);
- Recognised tourists destinations (VisitScotland destinations); and
- Users of the marine environment, including people arriving or departing from the islands on the Scrabster to Stromness ferry.

Settlements, transport routes and recreational routes (North Coast 500, Core Paths, Sustrans National Route) are shown in Figure 18.5 and superimposed with the ZTV in Figure 18.11.1-18.11.3 (SS19: SLVIA Figures).

18.4.6.5.1 Visual receptors in Sutherland and Caithness

Settlements

The largest settlements of Thurso, Dunnet and Castletown are located outwith the ZTV (see Figure 18.9.1, SS19: SLVIA Figures).The following Table 18-15 lists the settlements within the ZTV with the potential to experience visibility of the offshore Project and therefore included to the assessment.

Table 18-15 Settlements on the coast of Sutherland and Caithness

SETTLEMENTS	DISTANCE / DIRECTION TO OAA	DESCRIPTION
Durness	28 km / NE	Durness is a small settlement that lies along the A838 to the north of Sangomore. It is the most north westerly village on the Scottish mainland. The village lies with close proximity to the coastline with Durness Beach/ Sango Bay located to the east. To the east of Durness there are a number of townships next to the A838 including Kempie, Eriboll, Laid, Rispond, Sangobeg, Leirinmore, Smoo, Sangomore, Durine, Balnakeil and Keoldale.
Midfield	26 km / N	A few properties, set back from the coastline on the slightly elevated ground to the east of Achininiver Beach. To the south of Midfield, on the western side of Tongue Bay, alongside the local road are several small townships, including Achnauaigh, Talmoine and Midtown.
Tongue	34 km / N	Tongue lies to the east of the Kyle of Tongue. Tongue is a small, nucleated settlement that lies along the route of the A838, part of the North Coast 500, and just to the west of the A836, as the land slopes away towards the bay from the elevated land at Brae Tongue.

SETTLEMENTS	DISTANCE / DIRECTION TO OAA	DESCRIPTION
Skullomie and Coldbackie	31 km / N	The settlements have an elevated position looking towards the mouth of the Kyle of Tongue on the eastern side of the Kyle of Tongue.
Skerray	27 km /N	A remote small crofting hamlet and fishing port. Cliffs and inlets along the coastline are explored by sea kayaking enthusiasts.
Bettyhill	29 km / N	Bettyhill is a nucleated village that lies on the elevated ground between Torrisdale Bay to the west and Farr Bay to the east. The village lies to the north of the A386 along the route of the North Coast 500.
Kirtomy	27 km / N	Kirtomy is a small residential settlement that lies to the south of Kirtomy Bay and east along the coastline from Brove Castle. On the eastern edge of the bay the landscape extends northwards towards Kirtomy Point. Access to the settlement is via a rural road corridor, adjoining the A836 to the south.
Armadale	27 km / NW	Armadale is a linear settlement located on the western side of Armadale Bay, on the lower slope of Crasbackie Hill.
Lednagullin	28 km / NW	A village on the south eastern shore of Armadale Bay, alongside the scattered properties of Aultiphurst and Brawl.
Strathy	29 km / NW	The village of Strathy lies to the south of Strathy Point and the rest of the properties extend along the western edge of Strathy Bay towards Strathy Point.
Portskerra, Melvich	29 km / NW	Portkerra is a residential settlement located to the west of Melvich Bay. Melvich is next to the A836 to the south of the bay, near the mouth of the River Halladale.
Reay	34 km / NW	Reay is located to the south of Sandside Bay and extends along the route of the North Coast 500 (A836). The Dounreay Nuclear Power Development Establishment (NPDE) lies 1.6 km to the north-east of the village.
Achvarasdal	36 km / NW	Wireline indicates only one blade tip visibility. Therefore, the village is not included for further assessment.
Buldoo	34 km / NW	Buldoo lies 0.7 km from Dounreay close to the A836 North Coast 500, with agricultural pasture extending to the north and south of the route.
Crosskirk	34 km / NW	Crosskirk is a small residential settlement that lies along the coastline to the west of Brims Ness. The Hill of Lybster Technology Park lies to the west of the settlement with Forss windfarm situated adjacent to the west and Baillie WTGs to the south.

SETTLEMENTS	DISTANCE / DIRECTION TO OAA	DESCRIPTION
Murkle	42 km / NW	A small, scattered hamlet, made up of East Murkle and West Murkle next to the A836 in between Thurso and Castletown.
Scarfskerry	49 km / NW	Scarfskerry is a small residential settlement located along the coastline to the north of the Loch of Mey. The dwellings lie within close proximity of the rocky coastline associated with Dunnet Head at a distance of 4.5 km.
Rattar	50 km / NW	Rattar is a small linear settlement located to the south of Scarfskerry, west of the Loch of Mey, with the central road connecting with the A836 to the south at Whitebridge.
East May	50 km / NW	East May is located to the south of St John's Point, east of the Castle of Mey.
Huna	54 km / NW	Huna is small residential settlement to the south of the Isle of Stroma west of John o' Groats. The settlement lies along the A836 road corridor (North Coast 500).
John O'Groats	57 km / NW	John o' Groats is the northernmost village located to the west of Duncansby Head, further east along the A836 from Huna and located on the low-lying ground to that lies along the coastline.

Transport routes

The majority of the transport routes A9, A99, B876, A897 and B870 (see Figure 18.5, SS19: SLVIA Figures) in the study area extend south-north through straths which are largely outwith the ZTV (Figures 18.9.1 and 18.11.1-18.11.3, SS19: SLVIA Figures). Although some visibility has been indicated by the ZTV these would be limited to short sections of the routes and given their long distance, the magnitude would be no greater than negligible and are therefore excluded from further assessment on the basis that effects would be not significant.

The main coastal transport routes such as the A838 and A836 overlap with the North Coast 500, designated as a scenic route along the north coast of Scotland.

Recreational routes

The North Coast 500 (NC500) is regarded as one of the world's most beautiful road trips, 516 mile (830 km) scenic route around the north coast of Scotland, which starts and ends at Inverness Castle. Within the study area the route comprises coastal sections of the A838 and A836 between Durness and John O'Groats. The route also overlaps with the Sustrans Cycle Route 1. The route takes in areas of coastal scenery, with white sandy beaches, rugged mountains and remote fishing villages.

Sustrans National Cycle Route 1: Inverness to John O' Groats[41], when emerging from the Loch Loyal valley at Tongue it follows the North Coast 500 / A836 up to Reay and thereafter follows local roads to the south of the A836, its destination being John O' Groats.

Ferry travellers

A passenger and vehicular ferry is operated by Serco Northlink between Scrabster (near Thurso) and Stromness in Orkney. The ferry route passes the Old Man of Hoy and the UK's highest vertical sea cliffs at St John's Head before berthing in Stromness. The Pentland Ferries Ro-Ro (Roll on – Roll off) ferry route between Gills Bay and St Margaret's Hope is excluded from the assessment due to the long intervening distance of over 50 km and limited visibility from the route.

Core Paths

Most of the coastal settlements form the centre of the local Core Paths network, which provide connections and, in many cases, access to the coast. These paths are relatively short, being from 0.1 km up to 5 km, as shown on THC Core Paths map[42]. Due to the large number of these paths, they are not assessed individually, but are included as part of the settlements assessment.

Visitor destinations

Visitor destinations included in this assessment include those features that appear as prominent landmarks or landscape features, locations associated with passive recreation such as walking, and where there is a clear relationship between the feature / destination and the landscape. The coastline contains a wealth of visitor destinations, promoted by VisitScotland:[43]

- None out of 12 Iconic Scottish Views are related to the study area;
- Sango Bay is identified as one out of 12 Places to Find Amazing Sea Views in Scotland (assessed as part of the settlement of Durness); and
- Dunnet Head in Caithness is considered as one out of 15 Spectacular Coastal Walks in Scotland *(represented by viewpoint 13).

A number of visitor destinations overlapped by the ZTV are represented by Viewpoints as follows:

- Faraid Head (represented by Viewpoint 1);
- Kyle of Tongue Campsite (represented by Viewpoint 17);
- Achininiver beach (represented by Viewpoint 4);
- Torrisdale Bay (represented by Viewpoint 5);

[41] *https://explore.osmaps.com/route/5512954/sustrans-inverness-to-john-o-groats?lat=58.164578&lon=-4.344162&zoom=8.0657&style=Standard&type=2d&overlays=os-ncn-layer&placesCategory=*

[42] *https://highland.maps.arcgis.com/apps/webappviewer/index.html?id=2fd3fc9c72d545f7bcf1b43bf5c8445f*

[43] *https://www.visitscotland.com/*

- Strathy Point (represented by Viewpoint 6);
- Melvich Beach (represented by Viewpoint 7);
- Reay Golf Course and Sandside Bay (represented by Viewpoint 9);
- St Mary's Chapel, Crosskirk (represented by Viewpoint 10);
- Dunnet Bay and Caravan Park (represented by Viewpoint 12);
- Castle of Mey Garden and Designed Landscape (represented by Viewpoint 14); and
- Ben Hope (represented by Viewpoint 2) (The views from Ben Loyal would be similar to Ben Hope).

Other visitor destinations included in the assessment include:

- Tongue House Garden and Designed Landscape (assessed as part of the designated heritage asset);
- Bay View Campsite, Talmine Bay (assessed as part of the settlement of Talmine from Midfield to Midtown);
- Craigdhu, Bettyhill Caravan and Camping Site (assessed as part of the settlement of Bettyhill);
- Armadale Bay;
- Strathy Bay; and
- The Halladale Inn & North Coast Touring Park, Melvich (assessed as part of the settlement of Melvich).

The remaining destinations are either outwith the ZTV, have very limited visibility of the offshore Project or located over 40-50 km distance where the level of effect would be negligible and not significant.

18.4.6.5.2 Visual receptors of West Orkney Mainland, and the islands of Graemsay and Hoy

Settlements

The settlement pattern of Orkney is generally scattered, served by a sparse road network that crosses and circles the island giving access to individual properties by dead end tracks. The main road network alongside villages (including Rackwick) and the properties of Hoy are located outwith the ZTV (see Figure 18.10.3 and 18.11.3). This includes South Walls, where the majority of Hoy's population live. The island of Rousay is excluded from the assessment given the long intervening distance of over 50 km distance and very limited visibility of the offshore Project.

The following settlements of the West Orkney Mainland and Graemsay Island in Table 18-16 are within the ZTV (Figure 18.10.3 and 18.11.3) and are included in the assessment:

Table 18-16 Settlements of the West Orkney Mainland and island of Graemsay

SETTLEMENTS	DISTANCE / DIRECTION. TO OAA	DESCRIPTION
Graemsay	35 km / W	Properties on the west facing slope of West Hill.
Petertown / Clestrain	40 km / W	Properties along A964 to the NW of Houton.

SETTLEMENTS	DISTANCE / DIRECTION. TO OAA	DESCRIPTION
Outertown, Stromness	35 km / W	Properties to the NW of Stromness on the south west facing slope of Mewie Hill.
Northdyke	36 km / SE	Scattered properties alongside the coastal edge to the north of Bay of Skaill, to the west of B9056.
Marwick	37 km / SE	Properties to the north of Vestra Fiold hill, to the west of B9056/Cycle Route.
The Barony/ Northside	41 km / SE	Properties on both sides of the A966 on west facing slope of the landform.
Quoyscottie/ Dounby/ Miribister	42 km / SE	Scattered properties to the east of A986/ Loch Harray, in between Harray and Greeny, on the bottom slope of Greeny Hill.

Visual receptors (roads and residents) to the east of A986 have been scoped out from further assessment due to the long intervening distance of over 40 km and additionally due to the intervening topography which is reflected by the ZTV as blade tip visibility only (see Figure 18.11.3, SS19: SLVIA Figures).

Transport routes

The main road network on Orkney Mainland (A966 and A986) is largely located outwith the ZTV (Figure 18.11.3), however, there are small areas of the A966 and A986 located within the ZTV, and these sections are assessed in section 18.6.3.2. The A967 and A965 are located outwith the ZTV. The B9056 extends close to the western coast of the Orkney Mainland and is partially located within the ZTV and included in the assessment. However, both the B9056 and A966 overlaps with the Sustrans National Cycle Route 1 and are therefore assessed as part of the recreational route.

The A964, runs in a north south direction and overlaps with the ZTV between Houton Houth and Coldomo at 40 km from the offshore Project. It is included in the assessment in section 18.6.3.2.

All the roads on Hoy are outwith the ZTV (see Figure 18.11.3, SS19: SLVIA Figures) and are therefore excluded from the assessment.

Recreational routes and core paths - West Orkney Mainland.

There are three recreational routes included in the assessment in section 18.6.3.2.3.

- Sustrans National Cycle Route 1 Burwick to Kirkwall and Stromness[44] between Bay of Skail and Birsay Bay;
- The St Magnus Way[45] is a long-distance pilgrimage route through Mainland Orkney, following the story of St Magnus. It is also illustrated on the Orkney Core Path Plan and recognised as one of Spectacular Coastal Walks in Scotland according to VisitScotland; and
- West Coast Path (WM26 Core Path) is an approximately 32 km long Core Path along the open western coast of West of Orkney Mainland.

Recreational routes and core paths - Hoy

The following Core Paths[46] of Hoy extend within the ZTV (Figure 18.11.3, SS19: SLVIA Figures) and are included in the assessment in section 18.6.3.2.3. Core Paths H1, H4, H5 and H7 are all located outwith the ZTV and therefore excluded from the assessment.

H2	Old Man of Hoy.	An approx. 2.3 mile walk to the Old Man of Hoy.
H3	Rackwick Beach.	A short walk to the bothy and the beach at Rackwick.

Visitor destinations

Visitor destinations included in this assessment include those features that appear as prominent landmarks or landscape features, locations associated with passive recreation such as walking, and where there is a clear relationship between the feature / destination and the landscape. The coastline contains a wealth of visitor destinations, as promoted by VisitScotland.

- None of the 12 Iconic Scottish Views are related to the study area;
- The Old Man of Hoy is named as one out of seven Scenic Natural Wonders;
- Yesnaby Castle is identified as one out of 20 Most Beautiful Places and Beauty Spots in Scotland; and
- St Magnus Way in Orkney and Rackwick to The Old Man of Hoy are considered as they are among the 15 Spectacular Coastal Walks in Scotland.

The west Orkney coastline in itself is a visitor attraction and a number of visitor destinations overlapped by the ZTV are represented by Viewpoints as follows:

- Rackwick Bay (represented by Viewpoint 21);
- Old Man of Hoy (represented by the nearby Viewpoint 22);

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[44] *https://explore.osmaps.com/route/5513088/sustrans-orkney-islands-burwick-to-kirkwall-and-stromness?lat=59.082669&lon=-3.296417&zoom=11.6310&style=Standard&type=2d&overlays=os-ncn-layer&placesCategory=*

[45] *https://www.stmagnusway.com/*

[46] *https://oic.maps.arcgis.com/apps/MapSeries/index.html?appid=462f21e42d74428984b868be3a8c57c2*

- Warebeth Beach (represented by Viewpoint 24);
- Yesnaby Castle (represented by Viewpoint 25);
- Bay of Skaill (represented by Viewpoint 26);
- Kitchener Memorial (represented by Viewpoint 27); and
- Earl's Palace / Birsay Bay / Brough of Birsay (represented by Viewpoint 28).

Other visitor destinations included in the assessment include:

- Stromness Citadel viewpoint (represented by the nearby Viewpoint 24).

The coastline contains a wealth of built and natural heritage interest. Many prehistoric remains such as cairns and brochs are characteristic features of the coast. The ancient locations that make up the UNESCO WHS, the Heart of Neolithic Orkney, are at the top of most itineraries. Skara Brae, the Ring of Brodgar, the Standing Stones of Stenness, Maeshowe and the sprawling Ness of Brodgar. All of which are outwith ZTV (Figure 18.11.3, SS19: SLVIA Figures) and therefore excluded from the assessment (see section 18.4.6.4).

The remaining destinations are either outwith the ZTV, have very limited visibility of the offshore Project or located over 36 km where the level of effect would be low to negligible and not significant.

18.4.7 Representative viewpoints

In line with guidance (GLVIA3) representative viewpoints have been identified to inform the assessment. The representative viewpoints are used as 'samples' on which to base judgements of seascape, landscape and visual effects. In general, the representative viewpoints have been selected in locations where significant effects would be anticipated; though some may be selected outside of that zone – either to demonstrate the reduction of effects with distance; or to specifically ensure the representation of a particularly sensitive receptor. Most of the viewpoints represent multiple receptors.

The viewpoints have also been discussed and coordinated with the Cultural Heritage consultants Orkney Research Centre for Archaeology (ORCA), and therefore include proposed viewpoints for both SLVIA and the Cultural Heritage assessments. The PFOWF viewpoint locations were also considered in the viewpoint selection, acknowledging their use for cumulative assessment where relevant.

The following consideration has been given to the following, drawn from the SNH guidance: 'Offshore Renewables - guidance on assessing the impact on coastal landscape and seascape' (2012):

- Coastal views looking out from the coast and back to it, as well as across water to and from opposing shores;
- The variety of images that the offshore Project would present from coastal areas and important coastal hilltops; from the coast, and within firths, bays and straits; and
- A range of elevations to illustrate views.

Advice set out by the Scottish Ministers within the Scoping Opinion (29th June 2022) and a stakeholder consultation meeting held with NatureScot and THC[47] on 14th June 2022 provided feedback on the viewpoint locations and highlighted additional locations for consideration.

Table 18-17 provides the list of the assessment viewpoints, which are shown in Figures 18.8-18.10 and 18.11.1-18.11.3 and described and assessed in SS16 Viewpoint Assessment. Visualisations for each of the viewpoints are illustrated in Figures 18.VP1 – 18.VP28 in SS20 SLVIA Visualisations. Photomontages have not been produced for Viewpoint 11, as agreed with THC. All visualisations have been created in accordance with current THC and NatureScot guidance. The methodology of the visualisations production, which was agreed with THC and NatureScot is provided in SS17: SLVIA Zone of Theoretical Visibility and Visualisations Methodologies.

Five representative viewpoints (VP1 Faraid Head, VP6 Strathy Point, VP18 A836 Between Thurso and Castletown, VP21 Rackwick Bay and VP25 Yesnaby - Brough of Bigging) were agreed with stakeholders for the night-time viewpoints (September 2022) which support the Night-time Lighting Assessment in SS18: Night-time Lighting Assessment.

Table 18-17 Assessment viewpoints

VP REF	VIEWPOINT LOCATION	DISTANCE / DIRECTION TO THE OAA	COASTAL / LANDSCAPE RECEPTOR	VISUAL RECEPTOR
Caithness and Sutherland Viewpoints				
1	North of Durness - Faraid Head	26.7 km NE	High Cliffs and Sheltered Bays LCT Oldshoremore, Cape Wrath and Durness SLA	Visitors
2	Ben Hope	41.8 km N	Lone Mountains LCT / Kyle of Tongue NSA Ben Hope - Ben Loyal WLA	Walkers
3	A838 A'Moine	31.2 km N	Sweeping Moorland and Flows LCT Ben Hope - Ben Loyal WLA	Users of the NC 500 and A838
4	Strath Melness road for Achininiver beach	26.4 km N	Coastal Crofts & Small Farms LCT Eriboll East and Whiten Head SLA	Visitors / Local residents
5	Torrisdale Bay - Centre of Beach	29 km N	Sandy Beaches and Dunes LCT Kyle of Tongue NSA	Visitors

[47] *Orkney Islands Council (OIC) were invited but declined to attend.*

VP REF	VIEWPOINT LOCATION	DISTANCE / DIRECTION TO THE OAA	COASTAL / LANDSCAPE RECEPTOR	VISUAL RECEPTOR
6	Strathy Point	24.3 km NW	High Cliffs and Sheltered Bays LCT Farr Bay, Strathy and Portskerra SLA	Visitors
7	Melvich Beach	30.5 km N	Sandy Beaches and Dunes Sweeping Moorland and Flows LCT? Farr Bay, Strathy and Portskerra SLA	Residents / Visitors
8	Beinn Ratha	36.9 km NW	Sweeping Moorland and Flows LCT East Halladale Flows WLA	Walkers
9	A836, Reay Kirk, Sandside Bay	34.6 km NW	RCCA 47 Protskerra/ Farmed Lowland Plain LCT	Users of NC 500 and A836 / Residents
10	Crosskirk, St Mary's Chapel	33.7 km NW	RCCA 46 Brims Ness/ Farmed Lowland Plain LCT	Visitors
11	Ben Griam Beg Hillfort	50.9 km N	Lone Mountains LCT Ben Griam and Loch nan Clar SLA	Walkers
12	Dunnet Bay - at Caravan Park	44.5 km NW	RCCA 45 Dunnet Bay and Thurso Bay/Sandy Beaches and Dunes LCT Dunnet Head SLA	Visitors / users of the NC 500 and A838
13	Dunnet Head	39.5 km NW	RCCA 44 Scarfskerry and Dunnet Head / Coastal edge High Cliffs and Sheltered Bays LCT Dunnet Head SLA	Visitors
14	Castle of Mey LB & GDL	47.8 km NW	RCCA 44 Scarfskerry and Dunnet Head / Farmed Lowland Plain LCT	Visitors
15	St John's Point	49.1 km NW	RCCA 44 Scarfskerry and Dunnet Head / Coastal Crofts & Small Farms LCT	Visitors
16	Beinn Freiceadain Hillfort	47.1 km NW	Sweeping Moorland and Flows LCT	Visitors

VP REF	VIEWPOINT LOCATION	DISTANCE / DIRECTION TO THE OAA	COASTAL / LANDSCAPE RECEPTOR	VISUAL RECEPTOR
17	Kyle of Tongue - A838 causeway	32.6 km N	Coastal Crofts & Small Farms LCT Kyle of Tongue NSA	Users of the NC 500 and A838
18	A836 Between Thurso and Castletown	43.2 km NW	RCCA 45 Dunnet Bay and Thurso Bay/Farmed Lowland Plain LCT	Users of the NC 500 and A838
19	A836 Dounreay	34.3 km NW	RCCA 47 Protskerra / Farmed Lowland Plain LCT	Users of North Coast 500 and A836
Orkney Viewpoints				
20	Scrabster-Stromness Ferry	26 km W	Seascape	Ferry Passengers
21	Rackwick Bay - at Rackwich Bothy bench	30.8 km W	RCCA 36 West Hoy Cliffs / Enclosed Bays LCT Hoy and West Mainland NSA	Visitors / Residents
22	Path to Old Man of Hoy	28.9 km W	RCCA 37 Rora Head and St John's Head/Cliffs – Orkney LCT	Walkers
23	Tor Ness, Hoy	37.6 km NW	RCCA 36 West Hoy Cliffs / Cliffs – Orkney LCT	Walkers
24	Warebeth - on Warebeth Road to beach	34.8 km W	RCCA 25 Breckness and Row Head / Inclined Coastal Pasture LCT Hoy and West Mainland NSA	Visitors / Residents
25	Yesnaby - Brough of Bigging	33.2 km W	RCCA 25 Breckness and Row Head / Cliffs – Orkney LCT Hoy and West Mainland NSA	Visitors
26	Bay of Skaill - near toilet block	35.7 km W	RCCA 26 Marwick Head and Bay of Skaill / Enclosed Bays LCT	Visitors
27	Marwick Head Kitchener Memorial	36.9 km W	RCCA 26 Marwick Head and Bay of Skaill / Coastal Hills and Heath LCT	Visitors
28	Earl's Palace Birsay	40 km	RCCA 26 Marwick Head and Bay of Skaill / Enclosed Bays LCT	Visitors / Residents

18.4.8 Cumulative baseline context

The operational, under construction and consented developments considered within the cumulative baseline context are listed in Table 18-18 below.

The assessment of cumulative effects describes the effects arising from the combined and addition of the offshore Project to the baseline context of cumulative operational, under construction and consented windfarms. This assessment is undertaken within section 18.7 assessment of cumulative effects as scenario 1, which will be compared with the future cumulative scenario 2 which describes the effects arising from the combined and addition of the offshore Project to the future context of cumulative operational, under construction, consented, and in application windfarms. The developments considered within the cumulative assessment are listed in Table 18-45 and their locations within the study area are shown in Figure 18.6. Both cumulative scenarios are shown on wirelines in Figures 18.VP1- 18.VP28 (SS19: SLVIA Figures, SS20: SLVIA Viewpoints Visualisations).

Please note that at the time of the assessment the PFOWF was still at the application stage, and therefore, has been considered within the cumulative assessment of windfarms in the application stage in sections 18.7.3 and 18.7.4, and not as a consented development. Further details are provided in section 18.7.

Table 18-18 Cumulative baseline context

DEVELOPMENT	DISTANCE TO OAA (KM)	DESCRIPTION
Operational / under construction		
EMEC Billia Croo (Wave Power)	29	The development is located in shallower water of Billia Croo closer to shore to the NW of Stromness, Orkney.
Dounreay Substation Extension	34	Substation located directly south of the Dounreay Substation.
Dounreay Nuclear Power Development Establishment (NPDE)	34	Military nuclear research site. In phase 3 of the decommissioning, overlaps will likely occur from the land remediation and site landscaping. The timeline for decommissioning is currently under review (currently showing 2032 but this is likely to extend) but no final publication has been provided as yet.
Vulcan Naval Reactor Test Establishment (NRTE)	34	The Vulcan NRTE site is and Ministry of Defence (MoD) nuclear establishment adjacent to Dounreay. The site is in decommissioning but there is limited publicly available information on the timescales for these activities.
Sutherland Space Hub	88	The Space Hub Sutherland facility is located 88 km to the southwest of the OAA and 44 km southwest of the offshore Export Cable Corridor

DEVELOPMENT	DISTANCE TO OAA (KM)	DESCRIPTION
		(ECC) (Figure 20 1). Highlands and Islands Enterprise (HIE) progressed the Space Hub Sutherland development until November 2022, when Orbex were appointed as the Launch Site Officer (LSO). Orbex will be responsible for the operation of the facility under a 50-year lease. The first launch from the facility is expected to take place in 2022 / 2023, and thereafter a maximum of 12 launches per year (as per a condition of the Planning Permission in Principle). Space Hub Sutherland is in the process of discharging its planning conditions and obtaining other legal consents. Representative Viewpoint 3 is closest to the Space Hub).
Bettyhill	30	Onshore wind farm – two WTGs to the west of Strathy Forest are well absorbed by the landscape, with no visual interaction with the offshore Project.
Ackron Farm	33	Onshore wind farm. WTGs < 50 m high.
Forss I & II	33	Onshore wind farm
Strathy North	33	Onshore wind farm
Baillie	37	Onshore wind farm
Limekiln	38	Onshore wind farm
Thurso WWTW	39	Onshore wind farm. WTGs < 50 m high.
Ore Brae, Hoy	41	Onshore wind farm – single WTG well absorbed into the landscape.
Moss of Geise	42	Onshore wind farm. WTGs < 50 m high.
Weydale Farm	43	Onshore wind farm – single WTG well absorbed into the landscape.
Holodykes	44	Onshore wind farm – single WTG well absorbed into the landscape.
Taigh na Muir	46	Onshore wind farm – single WTG well absorbed into the landscape.
West Hill, Flotta	46	Onshore wind farm – single WTG well absorbed into the landscape.
Burgar Hill	48	Onshore wind farm – at a distance beyond 44 km within the eastern part of Orkney mainland where there is no visibility of the offshore Project.

DEVELOPMENT	DISTANCE TO OAA (KM)	DESCRIPTION
Lochend	50	Onshore wind farm – WTGs beyond 50 km.
Hammars Hill	50	Onshore wind farm – WTGs beyond 50 km.
Rennibister	51	Onshore wind farm – WTGs beyond 50 km.
Burnside Lyth	54	Onshore wind farm – WTGs < 50 m high.
Crowness Business Park	54	Onshore wind farm – WTGs beyond 50 km.
Achlachan	55	Onshore wind farm – WTGs beyond 50 km.
Stroupster	56	Onshore wind farm – WTGs beyond 50 km.
Causeymire	56	Onshore wind farm – WTGs beyond 50 km.
Halsary	57	Onshore wind farm – WTGs beyond 50 km.
Bad a Cheo	58	Onshore wind farm – WTGs beyond 50 km.
Kingarly Hill	58	Onshore wind farm – WTGs beyond 50 km.
Northfield, Burray	59	Onshore wind farm – WTGs beyond 50 km.
Consented		
Scottish Hydro Electric Transmission Limited (SHET-L) Caithness to Orkney High Voltage Alternating Current Link	22	The project will comprise a 70 km subsea cable between Dounreay, Caithness and Warebeth, Orkney. It has been assumed that construction of the cable may occur up until 2027.
Hill of Lybster	26	Onshore wind farm – this single WTG merges with Forss group with no visual interaction with the offshore Project.
Thusater Farm	34	Onshore wind farm – single WTG well absorbed into the landscape.
Strathy Wood	36	Onshore wind farm - WTGs < 50 m high.

DEVELOPMENT	DISTANCE TO OAA (KM)	DESCRIPTION
Strathy South	36	Onshore wind farm.
Limekiln Extension	38	Onshore wind farm.
Hoy Community	38	Onshore wind farm.
Cnoc na Gaoithe	44	Onshore wind farm – single WTG well absorbed into the landscape.
Costa Head	45	Onshore wind farm – WTGs < 50 m high.
Akla	46	Onshore wind farm – single WTG well absorbed into the landscape.
Hammars Hill Extension	46	Onshore wind farm – single WTG well absorbed into the landscape.
Quanterness	50	Onshore wind farm – WTGs beyond 50 km.
Thura Mains	52	Onshore wind farm – WTGs beyond 50 km.
Slickly	52	Onshore wind farm – WTGs beyond 50 km.
Achlachan II	55	Onshore wind farm – WTGs beyond 50 km.
Hesta Head	56	Onshore wind farm – WTGs beyond 50 km.
Cogle Moss	57	Onshore wind farm – WTGs beyond 50 km.

18.4.9 Future baseline

The baseline character of the landscape in the study area is likely to change in the future as a result of the effects of climate change, land use policy, environmental improvements and development pressures, regardless of whether the offshore Project progresses to construction or not.

A range of policies impact on the management of the landscape, ranging from international obligations, national policy and regulation, through to community strategies and development frameworks. Landscape planning policies covering the coastal landscape within the study area, such as the NSAs, generally seek to conserve and enhance the scenic qualities of the area, while recognising the need to adapt to inevitable change over time, particularly in such

a dynamic coastal landscape shaped by coastal processes, and the need to respond to development pressures that reflect the changing needs of society.

There is overwhelming evidence that global climate change, influenced by the human use of fossil fuels, raw materials and intensive agriculture, is occurring. Any notable change in climate is likely to present potential changes to the coastline of the study area in a variety of ways. The legislative framework already exists to ensure that no net loss of internationally important habitat occurs, but there remains a need to increase understanding of the potential effects of climate change on the characteristic landscapes of the study area and to develop longer term strategies that will mitigate any adverse effects of climate change.

Further development pressures which may change the baseline conditions, include suburbanisation and increased tourist development influences, particularly around the coastal landscapes and established coastal towns / villages within the study area, which have potential to increase the developed influence and reduce perceived naturalness of the coastline. In terms of human influences, the most notable changes in the study area will relate to the decommissioning of the Dounreay NPDE 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.

There are several wind energy developments (onshore and offshore) in planning which could potentially be consented. These developments are listed in Table 18-45 and assessed as the future cumulative scenario 2 in Section 18.7.3.

Potential changes to the landscape and seascape as a result of climate change and natural trends have been considered, but would not change the assessment of effects presented in this chapter.

18.4.10 Summary and key issues

Summary of key sensitive receptors identified from the baseline that are the focus of the assessment.

Table 18-19 Summary and key issues for SLVIA

SUMMARY AND KEY ISSUES	OFFSHORE PROJECT AREA
	The study area includes a number of sensitive landscape and visual receptors. The main effects would be expected along and upon the narrow coastal strip of Sutherland & Caithness and the Hoy & West of Orkney Mainland. The coastal areas are covered by NSAs and THC SLAs and also accommodate recreational routes and tourist destinations, including The North Coast 500 as well as the local populace.

18.4.11 Data limitations and uncertainties

The main assessment related constraint is that there are no precedents in place for such a large WTGs and the assessors of this chapter have had to utilise their professional judgement and experience. Although the assessors have visited most of the existing offshore developments in the UK, there is no recognised visibility threshold for such large-scale WTGs at present.

The effects identified in the SLVIA are based on the optimum viewing conditions at the time of assessment, with clear views of the offshore Project i.e., the visibility rating 'very good' or higher, so that the 'worst case scenario' could be assessed. However, in reality, the degree of visibility of the offshore Project will be influenced by the prevailing meteorological conditions, which will vary throughout the operational lifetime of the offshore Project. Clear views from the land would not be experienced every day, and there would be a finite number of days per annum where the meteorological conditions would provide ideal viewing conditions and visibility to the offshore Project (see section 18.4.5.2).

As a consequence, the effects the offshore Project on seascape, landscape and visual receptors will vary according to the meteorological conditions and the degree of visibility available. This means that effects that are assessed to be significant in the SLVIA under 'very good' or 'excellent' visibility conditions, may be not significant under moderate, poor or very poor visibility conditions where there would be moderate to no visibility of the offshore Project.

The limitations also apply to the supporting visualisations in SS20: SLVIA Visualisations which clearly overstate the worst case scenario as the photomontages have been produced so that all WTGs are enhanced with the same colour intensity (for example the furthest WTGs at a distance of 60 km and the closest at a distance of 26 km), disregarding atmospheric conditions of the marine environment and thereby loosing perspective, which provides impression of depth and distance.

However, this approach ensures that all WTGs will be visible on the printed sheet. Therefore, comparative and more realistic visualisations have been provided in SS20: SLVIA Visualisations, which cannot be printed and are recommended for viewing on a screen.

18.4.11.1 Distances

Where distances are given in the assessment, these are approximate distances between the nearest part of the offshore Project and the nearest part of the receptor in question, unless explicitly stated otherwise.

18.5 Impact assessment methodology

18.5.1 Impacts requiring assessment

The impacts identified as requiring consideration for the SLVIA are listed in Table 18-20. Information on the nature of impacts (i.e., direct or indirect) is also described.

Construction effects are short-term and temporary occurring during the length of the construction stage and differing in nature from the operational effects mainly due to the influence of the various construction vessels visible including cable laying vessels which will not be present or result in effects during the operation and maintenance stage.

Table 18-20 Impacts requiring assessment for the SLVIA

POTENTIAL IMPACT	NATURE OF IMPACT
Construction (including pre-construction) and decommissioning	
Effects on landscape character / coastal character	Indirect / Temporary (Short-term)
Effects on designated landscapes	Indirect / Temporary (Short-term)
Effects on visual receptors	Direct / Temporary (Short-term)
Night time effects	Direct / Temporary (Short-term)
Cumulative Effects	Direct / Temporary (Short-term)
Operation and maintenance	
Effects on landscape character / coastal character	Indirect / Permanent (Long-term)
Effects on designated landscapes	Indirect / Permanent (Long-term)
Effects on visual receptors	Direct / Permanent (Long-term)
Night time effects	Direct / Permanent (Long-term)
Cumulative effects	Direct / Permanent (Long-term)
Decommissioning*	

*** In the absence of detailed information regarding decommissioning works, and unless otherwise stated, the impacts during the decommissioning of the offshore Project would vary according to the stage of activity and would be short-term and temporary and reducing during the length of the decommissioning stage. The effect of the offshore Project on seascape, landscape and visual post-decommissioning is assessed as zero. Any changes in the future would be subject to necessary assessment which would be deemed appropriate at the time.**

18.5.2 Impacts scoped out of the assessment

A number of potential effects have been scoped out from further assessment, resulting from a conclusion of no likely significant effect. These conclusions have been made based on the knowledge of the baseline environment, the nature of planned works and the wealth of evidence on the potential for impact from such developments more

widely. The conclusions follow (in a site-based context) existing best practice. The justification for the receptors scoped out are listed in Table 18-21.

Table 18-21 Impacts scoped out of the assessment

IMPACT SCOPED OUT	JUSTIFICATION
Effects of the construction, operation and decommissioning of the offshore Project on certain LCTs	See justification provided in Table 18-8.
Effects of the construction, operation and decommissioning of the offshore Project on all WLAs	See justification provided in Table 18-14 and as agreed with NatureScot on 31st May 2023.
Effects of the construction, operation and decommissioning of the offshore Project on North West Sutherland NSA	See justification provided in Section 18.4.6.3.1 and as agreed with NatureScot on 31st May 2023.
Effects of the construction, operation and decommissioning of the offshore Project on three SLAs	See justification provided in Section 18.4.6.3.2.
Single WTGs <50 m of tip height	Small WTGs are well absorbed by the landscape, with no visual interaction with the offshore Project. WTGs of < 50 m within the study area are shown in Figure 18.6 and listed in Table 18-45 which provides cumulative schemes contribution to the cumulative assessment.
Effects on 'residential visual amenity', i.e., the visual component of 'living conditions'	Due to the long intervening distance, the offshore Project would not be so overbearing or dominating as experienced from any individual property as to result in unacceptable living conditions.

18.5.3 Assessment methodology

18.5.3.1 Introduction

The purpose. of the SLVIA is to identify, predict and evaluate potential impacts associated with the offshore Project. Seascape, landscape and visual amenity assessments are separate although linked processes, describing closely related but distinct sets of effects.

- Seascape or coastal character assessment considers 'the aspects associated specifically with the coast, such as marine influences, the coastal edge and its immediate hinterland as well as the inter-relationship between these components.' (SNH, 2017). It should be noted that published guidance from various sources may use

either or both the terms Seascape Character and Coastal Character for the above definition, however, for the purposes of the SLVIA, they could be considered interchangeable;

- Landscape character assessment focuses on effects on the physical landscape elements which may give rise to changes in its distinctive character and how this is experienced, including consideration of aesthetic and perceptual aspects; and
- Visual amenity assessment considers the response of the people who experience visual effects caused by changes that arise in the composition of available views as a result of the offshore Project.

18.5.3.2 Assessment criteria

The assessment methodology has been derived from the Landscape Institute with the Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3). The involvement of the IEMA in developing the GLVIA3 ensured that LVIAs undertaken within the EIA process can be effectively integrated with the rest of the topic assessments in an environmental statement[48]. The guidance ensures that the most relevant assessment principles and approaches are being utilised and offers guidance on setting out the context of the development and the receiving environment. The SLVIA methodology approach, principles and processes aim to support compliance with EIA regulations and to follow the principles set out in chapter 7: EIA methodology. The SLVIA methodology also contains a certain discipline-specific terminology which the SLVIA uses, and is, provided in the Glossary in section 18.14.

The assessment has been carried out by three chartered landscape architects through a thorough review process.

OESEA (2022) (para 5.8.1) defines three principal considerations for the assessment of the likely impacts of offshore energy activity on the seascape / landscape of UK waters and coastlines:

- The limit of visual perception from the coast (i.e., are the devices or installations visible and what influences their visibility);
- The individual characteristics of the coast which affect its capacity to contain a given development; and
- How people perceive and interact with the seascape, and what changes in character may be introduced by certain developments.

As identified in the GLVIA 3 the effects are identified by establishing and describing the changes resulting from the different components of the development and the resulting effects on individual landscape or visual receptors. Assessment of the significance of effects takes account of the nature of the effects ('magnitude'), as well as the nature of the receptors ('sensitivity') and differentiates between them according to the stages (construction, operational and demolition) of the development in which they would occur (GLVIA3, Box 3.1). Wherever possible, identified effects are quantified, however the nature of SLVIA requires interpretation by professional judgement. In order to provide a level of consistency to the assessment, the prediction of magnitude and assessment of significance of the residual landscape and visual impacts have been based on pre-defined criteria.

[48] *https://www.iema.net/articles/iema-publishes-revised-lvia-guidance*

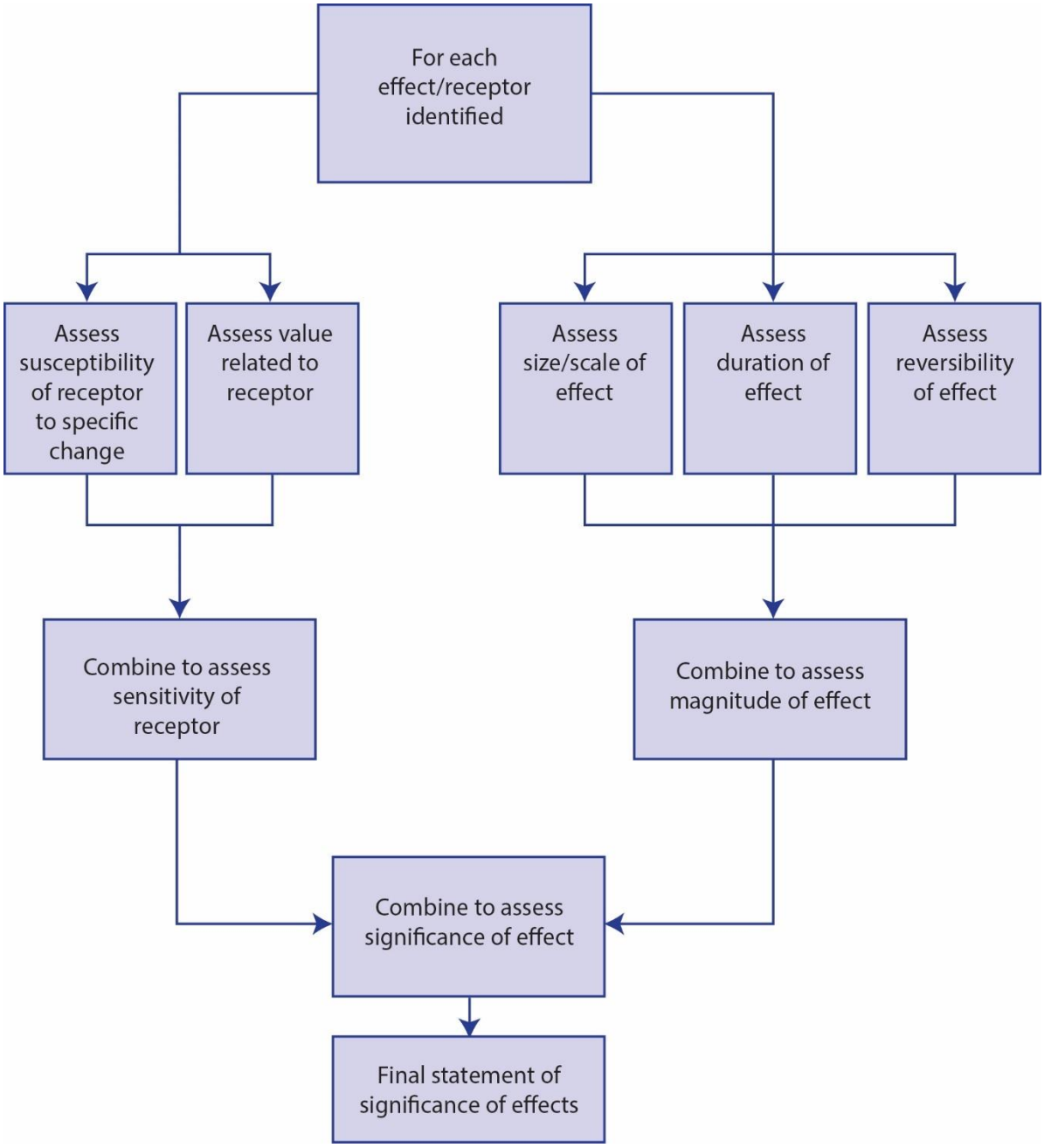

Figure 18-1 Flow diagram from GLVIA3 Page 39

18.5.3.3 Sensitivity to change

Sensitivity is judged taking into account the component judgments about the value and susceptibility of the receptor.

18.5.3.3.1 Seascape / Landscape sensitivity

Seascape / landscape sensitivity often varies in response to both the type and stage of the development proposed and its location, such that sensitivity needs to be considered on a case by case basis. It should not be confused with 'inherent sensitivity' where areas of the landscape may be referred to as inherently of 'high' or 'low' sensitivity. For example, a NSA may be described as inherently of high sensitivity on account of its designation and value, although it may prove to be less susceptible (and therefore sensitive) to a particular development. The susceptibility of seascape / landscape receptors has been assessed in relation to change arising from the specific development proposed, including the offshore Project.

The sensitivity of landscape receptors to change of the nature arising from windfarm development is defined as high, medium and low based on professional interpretation, combining judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape.

Seascape receptors include different coastal LCT or areas which may be affected by the offshore Project, as well as landscape designations within the study area.

Scott *et al.*, (2005)[49], developed a methodology to characterise seascapes, and define their sensitivity. The sensitivity of the seascapes are increased where there is greater intricacy, stillness, low lighting and where the seascape is currently unmodified and experienced from a secluded coastline.

It should be noted that the seascape or landscape sensitivity assessed at each of the representative viewpoints is not necessarily the same as that identified as the overall sensitivity for the seascape or landscape character area within which the viewpoint is located. Thus, if the key characteristics of the seascape or landscape at, and seen from, a viewpoint location is different from the key characteristics of the overall seascape or landscape character area, it may be assessed as being of a different sensitivity at the particular viewpoint location.

18.5.3.3.2 Seascape / Landscape value

Seascape / Landscape Value is "the relative value that is attached to different landscapes by society" (GLVIA3, page 157).

The value attached to seascape / landscape receptors reflects landscape designations and the level of importance which they indicate at the community, local, national or international levels. However, landscape designations are not the sole indicator of landscape value (GLVIA3, Box 5.1).

The following range of factors are considered in order to identify valued seascape / landscape:

- Landscape quality;
- Scenic quality;

[49] *Scottish Natural Heritage. 2017. Visit a geopark. [online] available at https://www.nature.scot/enjoying-outdoors/places-visit/visitgeopark.*

- Rarity;
- Representativeness;
- Conservation interest;
- Recreation value;
- Perceptual aspects; and
- Cultural associations.

Value can apply to areas of landscape as a whole, or to the individual elements, features and aesthetic or perceptual dimensions which contribute to the character of the landscape.

Table 18-22 Seascape / Landscape value

VALUE	VALUE DEFINITION
High	• Seascape / landscape character areas that form an important part of the setting or contribute strongly to the special qualities or reasons for designation of nationally or internationally designated landscapes which are designated for their landscape value or quality.
High-Medium	• Seascape / landscape character areas that form part of the setting or contribute to a lesser degree to the special qualities or reasons for designation of nationally or internationally designated landscapes which are designated for their landscape value or quality. • Seascape / landscape character areas that form an important part of and contribute strongly to the setting of regionally designated landscapes which are designated for their landscape value or quality. • Also, seascape character areas which documentary evidence and/or site observation indicates as being valued for other attributes, and by large numbers of people who travel from beyond the local community to experience the seascape/ landscape.
Medium	• Local level seascape / landscape which is appreciated by the local community and small numbers of visitors but has little or no wider recognition of its value.
Low	• Despoiled or degraded seascape / landscape with little or no evidence of being valued by the community or visitors.

18.5.3.3.3 Seascape / Landscape susceptibility

Susceptibility indicates the ability of a seascape / landscape to accommodate the offshore Project "*without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies*." (GLVIA3, para. 5.40). The degree to which an offshore development alters a given landscape / seascape in which it is observed, is largely determined by the following key considerations, including how the form and scale of the development interacts with coastal morphology, and the level of development already experienced from coastal positions within viewable distance of the development. Some landscape / seascape receptors are better able to accommodate development than others due to certain characteristics that are indicative of capacity to accommodate change. These characteristics may or may not also be SLQs that underpin designated landscapes.

Susceptibility of a landscape / seascape to any type of change, is dependent on (Scott *et al.*, 2005):

- Sense of scale and pattern of the landscape and its elements / features;
- Enclosure / openness or exposure;
- Coastal and hinterland form;
- Land / sea use;
- Settlement pattern;

- Seascape pattern and foci / the nature of skylines;
- Movement;
- Lighting;
- Simplicity / complexity of the landscape; and
- Tranquillity / remoteness / wilderness.

Large scale seascape has a greater ability to physically and visually accommodate offshore development with a reduced level of impact. This is in contrast to a small scale, and intimate landscape which could easily become overwhelmed by the large scale of offshore wind energy development. The horizontal and vertical scale of the coast can influence the susceptibility of a seascape. Where the principal viewing platforms are across bays, inlets, sea lochs and inner firths, developments may take up more of the horizon and be framed by headlands, whereas more open, expansive views have the opposite effect (Scott *et al.*, 2005). A simple coastline presents a more straightforward relationship between land and sea, such that the interaction between receptors and development is less complicated. In contrast a convoluted, intricate coastline, potentially with offshore islands, creates a more challenging seascape within which to site large scale development.

Outside of scale, form, aspect and exposure, seascape sensitivity is greatly influenced by the level of coastal development, which can be highly variable. Urban and industrial settings, areas where other forms of mechanical movement are present (e.g., ships, cars), where artificial light is prominent, and where the observation points are from busy roads or beaches, may be considered more advantageous for development than rural areas. Where there is already considerable urban development however, cumulative impacts must also be considered (DTI 2005).

Table 18-23 Level of seascape / landscape susceptibility

SUSCEPTIBILITY	DEFINITION
High	• Key characteristics of seascape are fragile and are unable to accommodate development without significant character change; thresholds for significant change are very low. Wind energy development conflicts with seascape character. • For example, coastline or hinterland landscape which has very distinctive physical characteristics which may include shape, enclosure, fragmentation, and prominent historic, cultural, or geological features. • Seascapes / landscapes with spectacular views, very complex visual composition, very high diversity of detail, and aesthetic qualities which are intact and uncompromised. • Limited ability to absorb the type of development proposed; undue consequences for the maintenance of the baseline situation (receptor value) and / or achievement of relevant planning policies / strategies.
Medium	• Key characteristics of seascape are vulnerable but with some ability to accommodate development in some situations without significant character change; thresholds for significant change are intermediate. Some aspects of wind energy development relate to seascape character. • Some potential to absorb the type of development proposed; some undue consequences for the maintenance of the baseline situation (receptor value) and / or achievement of relevant planning policies / strategies.
Low	• Key characteristics of seascape are robust and are able to accommodate development without significant character change; thresholds for significant change are very high. Wind energy development relates to seascape character. • Ability to accommodate the type of development proposed; little or no undue consequences for the maintenance of the baseline situation (receptor value) and/or achievement of relevant planning policies / strategies.

Susceptibility of landscape character areas is influenced by their characteristics and is frequently considered (though often recorded as 'sensitivity' rather than susceptibility) within documented landscape character assessments and capacity studies.

Susceptibility of designated landscapes is influenced by the nature of the SLQs and purposes of designation and/or the valued elements, qualities or characteristics, indicating the degree to which these may be unduly affected by the development proposed.

Susceptibility of accessible or recreational landscapes or seascapes is influenced by the nature of the landscape / seascape involved; the likely activities and expectations of people within that landscape / seascape and the degree to which those activities and expectations may be unduly affected by the development proposed.

18.5.3.3.4 Sensitivity of visual receptors

Visual receptors are all people, as stated in guidance (GLVIA 3 para 6.31). Visual receptor sensitivity assessment is based on two factors:

- Value of view. The value attached to a particular view; through designation, visitor attraction or local importance; and
- Susceptibility of visual receptors. The occupation or activity of the people at the affected location and the extent to which their attention or interest may be focused on the view / visual amenity.

Combining susceptibility to change and value attached to the view seems in practice to lower the visual sensitivity of receptors where the proposals do not align with the main direction of view. Therefore, there is potential for double counting this with the assessment of magnitude of change, which is also affected by direction of view.

Therefore, this assessment places more emphasis on the nature and activity of the visual receptor, with residents / recreational receptors, all being high sensitivity to the type of development proposed. The assessment of significance is therefore more dependent on the magnitude of change / effect which takes account of for example, view orientation and screening.

Table 18-24 Examples of visual sensitivity

SENSITIVITY	DEFINITION
High	• People in residential properties or settlements and on long distance, strategic footpath or popular footpaths and tourist destinations, viewing important landscape features, beauty spots and picnic areas, where the activities are focused on the landscape. Receptors include residents, tourists / visitors, walkers, cyclists, and horse riders travelling through the landscape.
Medium	• Locations frequented by viewers with a moderate interest in their environment; people travelling through the landscape in a motorised vehicle or at recreational facilities where the main focus of activity is not on the surroundings.
Low	• Receptors are likely to include people at their place of work or taking part in activities not involving an appreciation of the landscape and drivers on motorways and other busy track roads.

18.5.3.4 Assessing magnitude of change

The magnitude of seascape / landscape or visual change is stated as combining consideration of the scale or size of effect with the extent of the area affected and duration / reversibility of that effect. (GLVIA3, para 3.24). The relative weighting of the three main factors are not specifically discussed in the guidance. There are some practitioners who give them equal or almost equal weight. This means that there is potential for the overall magnitude of change to be less than the scale of effect alone. However, others give most weight to the scale of effect and extent (in terms of distance). As offshore windfarms are long-term, the overall magnitude of change is therefore often at the same level as the scale of effect. For a study of this nature, it is therefore considered sensible to take a precautionary approach and consider that the scale of effect is likely to be at a similar level to the magnitude of change.

Consideration of magnitude of change identifies quantifiable parameters which include distance, number and proportion of WTGs visible, proportion of field of view and navigational lighting. Less quantifiable parameters include arrangement of WTGs, background, aspect and weather and prominence of other built features in the view.

The size or scale of effect includes consideration of:

- The scale of change in the view including the proportion of the view occupied by the offshore Project;
- The degree of contrast or integration; and
- The nature of the view in terms of the relative amount of time over which it will be experienced on whether views will be full, partial or glimpses.

The geographical extent of the visual effect is likely to reflect:

- The angle of view in relation to the main activity receptor;
- The distance of the viewpoint from the offshore Project; and
- The extent of the area over which the change would be visible (combining a number of viewpoints such as on a coastal footpath or over a designated area).

The duration and reversibility of seascape / landscape and visual effects are based on the period over which the offshore Project is likely to exist (during construction and operation) and the extent to which the offshore Project will be removed (during decommissioning), with effects reversed at the end of that period.

Long-term, medium-term and short-term seascape / landscape and visual effects are defined as follows:

- long-term – more than 10 years (may be defined as permanent or reversible);
- medium-term – 6 to 10 years; and
- short-term – 1 to 5 years.

OESEA Buffer Study for Offshore Wind Farms (2020) lists a series of factors to inform decisions on magnitude of effect. These are detailed in Table 18-25.

Table 18-25 Factors that tend to decrease or increase apparent magnitude

FACTORS THAT TEND TO DECREASE APPARENT MAGNITUDE (SAMPLE):	FACTORS THAT TEND TO INCREASE APPARENT MAGNITUDE (SAMPLE):
• Long-distances; • Small proportion of horizon occupied; • Small percentage of development visible; • Integration through siting; • Skylining; • Low visibility; • Absence of visual clues; • Windfarm not focal point; • Complex scene; • Low contrast; and • High elevation.	• Short distances; • Large proportion of horizon occupied; • Large percentage of development visible; • Strong contrast due to poor siting or layout; • Backgrounding; • High visibility; • Visual clues; • Windfarm is focal point; • Simple scene; • High contrast; • Low elevation; and • Night-time lighting.

The criteria utilised in ascribing magnitude of change to assist consistency of approach throughout the assessment is detailed in Table 18-26:

Table 18-26 Magnitude of change

MAGNITUDE	CRITERIA
High	Total loss or major alteration to key elements, features or characteristics, such that post development the baseline will be fundamentally changed. The offshore Project is highly prominent or even dominant and could become the defining characteristic of views and seascape / landscape character.
Medium	Represents a notable loss or alteration to key elements, features or characteristics, such that post development the baseline will be noticeably changed. The offshore Project appears as a prominent element / foci in the seascape / landscape and in views.
Low	Constitutes a partial loss to one or more key elements, features or characteristics, such that post development the baseline will be largely unchanged despite noticeable differences. The addition of the offshore Project is less distinct through having a limited characterising influence within the broader seascape / landscape.
Negligible	The offshore Project represents a barely discernible loss or alteration to one or more key elements, features or characteristics of the baseline conditions. The underlying seascape / landscape character or view composition would be essentially unchanged.

Where intermediate ratings are given, e.g. "medium-low", this indicates an effect that is both less than medium and more than low, rather than one which varies across the range.

18.5.3.5 Cumulative effects

Cumulative assessment relates to the assessment of the effects of more than one development. NatureScot's guidance 'Assessing the Cumulative Landscape and Visual Impact of Onshore Wind Energy Developments (NatureScot, 2021) provides the basis for the cumulative assessment methodology, in addition to GLVIA3.

Operational, and consented developments are treated as being part of the seascape, landscape and visual baseline i.e., it is assumed that consented schemes will be built except for occasional exceptions where there is good reason to assume that they will not be constructed.

The cumulative effects have been assessed as the 'additional' effect over and above the baseline of other windfarm development as well as the 'combined' cumulative effect of a number of other windfarm developments including the offshore Project.

Cumulative effects arising from the offshore Project, when considered in conjunction with other operational and/or consented windfarm developments, are determined taking account of the above magnitude criteria as well as the following:

- The number of existing, consented and proposed windfarms visible;
- The distance to each of the visible developments from the receptor location;
- The direction of each development in relation to the viewpoint;
- The extent of the view occupied by each development;
- The cumulative effect of development upon the fabric or key landscape components; and
- In the case of LCTs, residential areas and transportation / recreational routes: the proportion of the area or route subject to cumulative views.

Table 18-27 Cumulative magnitude of change

MAGNITUDE	CRITERIA
High	The offshore Project would represent a considerable increase in the proportion of the landscape or view affected by similar development.
Medium	The offshore Project would represent a notable increase in the proportion of the landscape or view affected by similar development.
Low	The offshore Project would represent a minor addition to the proportion of the landscape or view affected by similar development.
Negligible	The offshore Project would represent a barely perceptible addition to the proportion of the landscape or view affected by similar developments.

Developments which have been refused at appeal or withdrawn or are at the scoping stage are not included in the assessment in line with NatureScot guidance[50].

Cumulative effects are described as:

- Simultaneous or combined: where two or more developments may be viewed from a single fixed viewpoint simultaneously, within the viewer's field of view and without requiring them to turn their head;
- Successive or repetitive: where two or more developments may be viewed from a single viewpoint successively as the viewer turns their head or swivels through 360°; and
- Sequential: where a number of developments may be viewed sequentially or repeatedly at increased frequency, from a range of locations when travelling along a route within the study area.

The way in which the assessment is described and presented is varied depending on the number and nature of scenarios which may arise.

- The cumulative assessment considers scenarios within which developments of the same status (operational and consented) may be "grouped", for instance two or more nearby cumulative windfarm proposals may be considered in one scenario if it is considered that the cumulative effects arising if one or more are developed are likely to be similar;
- Receptors judged to receive a Negligible magnitude of change from the offshore Project on its own are not considered for cumulative assessment on the basis that any significant effects arising would primarily be caused by the cumulative developments and unlikely to be contributed to by the offshore Project; and
- Only those receptors judged likely to experience effects from the cumulative development(s) being considered within a given scenario are included in the assessment.

18.5.3.6 Level of effect and significance of effects

The effect of any identified seascape / landscape or visual impact, the level of effect, is assessed as major, moderate, minor or negligible (see Table 18-28). These categories are based on combining seascape / landscape or visual sensitivity and the predicted magnitude of change. The determination of levels of significance requires the application of professional judgement and experience to gauge the balance of variables which, in every instance, are given different weight according to the site and its surroundings in terms of specific considerations.

Each impact is evaluated on a case-by-case basis using the matrix below (see Table 18-28), showing general guidance on the relationship between magnitude of change and sensitivity of receptor.

[50] *This approach differs from other chapters which have considered developments at the Scoping stage see chapter 7: EIA methodology*

Table 18-28 Evaluation of seascape, landscape and visual effects

Seascape / Landscape and Visual Sensitivity	Magnitude of Change			
	High	Medium	Low	Negligible
High	Major	Major / moderate	*Moderate*	Minor
Medium	Major / moderate	*Moderate*	Moderate / minor	Minor / negligible
Low	*Moderate*	Moderate / minor	Minor	Negligible

In line with the GLVIA 3, the matrix (see Table 18-28) is not used as a prescriptive tool and the methodology and analysis of potential effects at any particular location must allow for the exercise of professional judgement.

Where the landscape or visual impact has been classified as **Major** and **Major / moderate** this is considered to be equivalent to a significant effect. **Moderate** level of effect may be significant or not significant, depending on the particular circumstances arising and professional judgement.

It should also be noted that whilst an effect may be significant, that does not necessarily mean that such an impact would be unacceptable or should necessarily be regarded as an "undue consequence" (GLVIA3, para 5.40).

18.5.3.7 Nature of effects

The nature of effects refers to whether the seascape / landscape and/or visual effect of the offshore Project is positive or negative (herein referred to as 'beneficial' and 'adverse'). Cumulative effects have been described as 'short-term, medium-term and long-term, permanent and temporary' effects.

18.5.3.7.1 Direct and indirect effects

Direct landscape effects relate to the host landscape and concern both physical and perceptual effects on the receptor.

Indirect landscape effects relate to those landscapes and receptors which are separated by distance or are remote from the development and therefore are only affected in terms of perceptual effects. The Landscape Institute also defines indirect effects as those which are not a direct result of the development but are often produced away from it or as a result of a complex pathway.

Visual effects are considered as direct effects, as the view itself may be directly altered by the offshore Project.

18.5.3.7.2 Beneficial and adverse effects

Guidance provided in the GLVIA3 on the nature of effect (i.e., beneficial or adverse) states that '*in the LVIA, 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 it does not provide guidance as to how that may be established in practice. The nature of effect is therefore one that requires interpretation and, where applied, reasoned professional opinion.

In this assessment the nature of effects refers to whether the landscape and/or visual effect of the offshore Project is positive or negative (herein referred to as 'beneficial'/'neutral' or 'adverse').

In relation to many forms of development, SLVIA will identify 'beneficial' and 'adverse' effects by assessing these under the term 'Nature of Effect'. The seascape, landscape and visual effects of windfarms are difficult to categorise in either of these brackets as, unlike other disciplines, there are no definitive criteria by which the effects of windfarms can be measured as being categorically 'beneficial' or 'adverse'. In some disciplines, such as noise or ecology, it is possible to quantify the effect of a windfarm in numeric terms, by objectively identifying or quantifying the proportion of a receptor that is affected and consequently assessing the nature of that effect in justifiable terms. However, this is not the case in relation to landscape and visual effects where the approach combines quantitative and qualitative assessment.

Generally, in the development of 'new' windfarms, a precautionary approach has been adopted, which assumes that significant landscape and visual effects are weighed on the adverse side of the planning balance. Unless it is stated otherwise, the effects considered in the assessment have been considered to be adverse. Beneficial or neutral effects may, however, arise in certain situations and are stated in the assessment where relevant. The following definitions have been used.

- Beneficial effects - contribute to the seascape, landscape and visual resource through the enhancement of desirable characteristics or the introduction of new, beneficial landscape and visual attributes. The development contributes to the seascape, landscape or visual amenity by virtue of good design. The removal of undesirable existing elements or characteristics can also be beneficial, as can their replacement with more appropriate components;
- Neutral effects - occur where the development fits with the existing seascape / landscape character or visual amenity. The development neither contributes to nor detracts from the landscape and visual resource and can be accommodated with neither beneficial or adverse effects, or where the effects are so limited that the change is hardly noticeable. A change to the seascape, landscape and visual resource is not considered to be adverse simply because it constitutes an alteration to the existing situation; and
- Adverse effects - are those that detract from the seascape / landscape character or quality of visual attributes experienced, through the introduction of elements that contrast, in a detrimental way, with the existing characteristics of the seascape, landscape and visual resource, or through the removal of elements that are key in its characterisation.

18.5.4 Embedded mitigation

As described in chapter 7: EIA methodology, certain measures have been adopted as part of the Project development process in order to reduce the potential for impacts to the environment.

Mitigation for windfarms is generally limited to the reduction of potential direct effects through detailed siting, and the reduction in adverse aesthetic effects through windfarm design. This is made clear in 'Siting and Designing Wind

Farms in the Landscape' (SNH, 2017a). The SMP identified areas suitable for the future development of commercial-scale offshore wind energy in Scotland (Scottish Government, 2020). The SMP process was iterative, informed through stakeholder engagement and evidence from the related social, economic and environmental assessments, and considered seascape, landscape and visual receptors at a strategic level. Selection of the OAA and offshore ECC route options were an important step in the preparation of the ScotWind bid application to Crown Estate Scotland and considerable work was done ahead of the bid application to define these areas. Consideration of seascape, landscape and visual receptors informed the selection of the OAA, which in particular involved reducing the N1 Plan Option in the south east corner and eastern edge to maintain a sightline between mainland Scotland and the west coast of Orkney (see chapter 4: Site selection & consideration of alternatives for further information and Figure 18-2), maintenance of this sightline was something requested by THC in the pre-application advice received by OWPL ahead of their ScotWind bid application. This reduction also helped to minimise the overlap with key areas, highlighted by the NatureScot (at the time SNH) Assessment of Potential Seascape, Landscape and Visual Impacts and Provision of Design Guidance, as likely to be affected by two or more landscape / visual constraints (SNH, 2020b). Other constraints were also considered in the selection of the OAA. The site selection process resulted in an OAA that is 56% of the total N1 PO area.

Since the Project design is dependent on site constraints, the detailed design can only take place post-consent once all the data has been gathered (including seabed survey and Unexploded Ordnance (UXO) and boulders). Therefore, mitigation relating to the final layout cannot be adopted at this stage. The final design of the offshore Project will be confirmed through detailed engineering design studies that will be undertaken post-consent, including the development of the ground model which will be informed by the results of geotechnical investigations of the OAA which are still to be undertaken. Detailed siting of the WTGs will be driven by a range of physical and environmental constraints including localised geological conditions, bathymetry, ecology, aviation, navigation, wind resource, and marine archaeology. Detailed design of the aviation and navigation lighting would also take place post-consent, in line with the requirements of the relevant statutory authorities.

The final design, including WTG layout will be captured in the Development Specification and Layout Plan (DSLP) which will be developed via an iterative design process in consultation with interested stakeholders (see section 18.11 for further information).

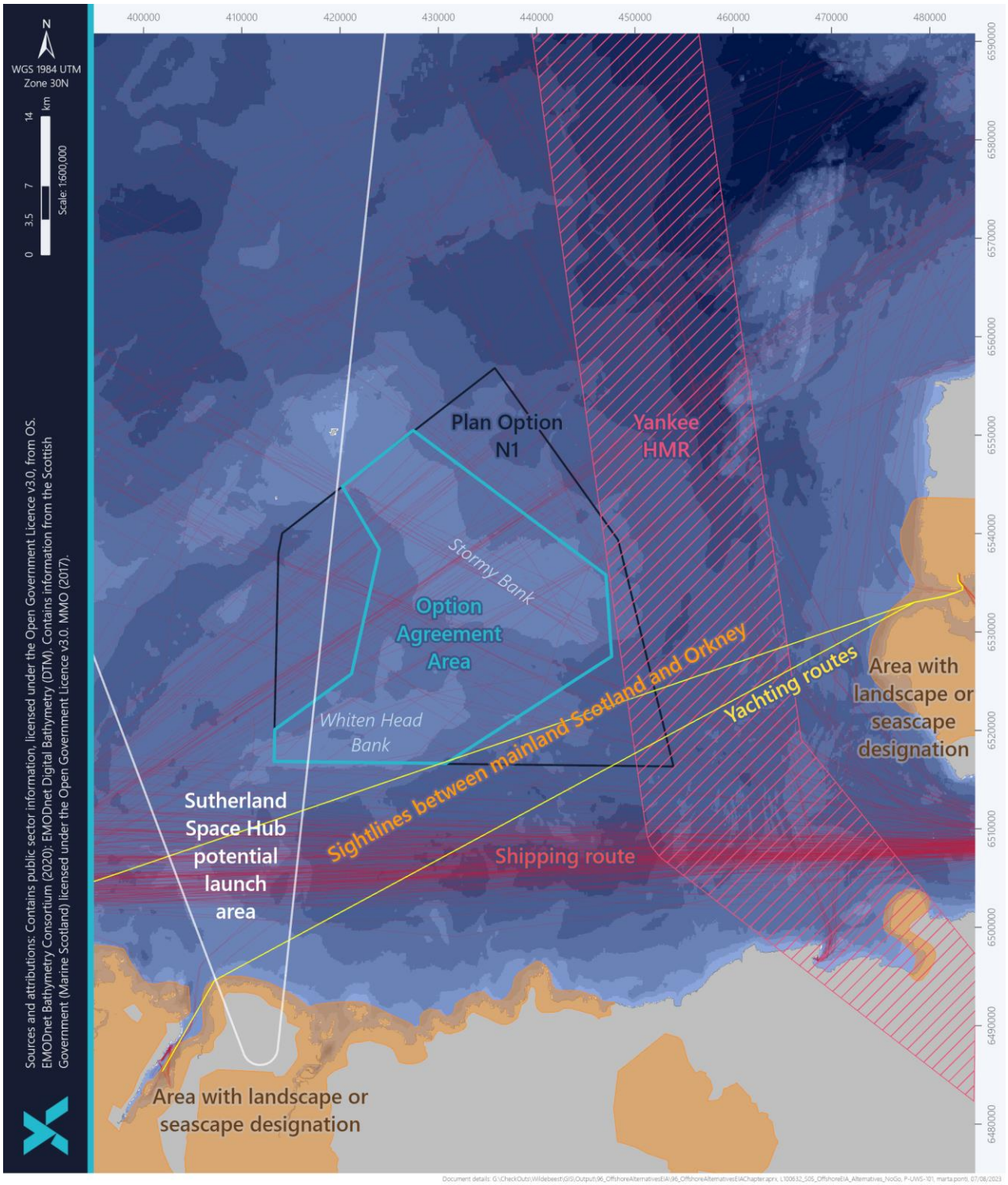

Figure 18-2 Key constraints considered when refining the N1 PO to the OAA pre ScotWind bid application.

Table 18-29 Embedded mitigation measures relevant to SLVIA

MITIGATION MEASURE	FORM (PRIMARY OR TERTIARY)	DESCRIPTION	HOW MITIGATION WILL BE SECURED
Site selection	Primary	Reduction of the N1 Plan Option area to form the OAA and selection of OAA to avoids sightlines between Scotland and Orkney.	Already secured by the OAA boundary.
Reduced intensity aviation warning lights	Primary	The proposed perimeter lights (CAP 393) operate via a visibility sensor and will operate at a reduced intensity of 200cd during periods of clear visibility (>5 km), increasing to 2000cd when the visibility sensors detect poor visibility (<5 km).	Lighting and marking of the offshore Project will be captured within the Lighting and Marking Plan a condition of the Section 36 Consent and/or Marine Licence conditions (see Outline Management Plan.
Layout approval via Development Specification and Layout Plan (DSLP)	Tertiary	Layout to be approved by Scottish Ministers, following consultation with relevant stakeholders as part of the DSLP process.	The layout will be detailed within the DSLP, required under Section 36 Consent and/or Marine Licence conditions.
Decommissioning Programme	Tertiary	The development of, and adherence to, a Decommissioning Programme, approved by Scottish Ministers prior to construction and updated throughout the Project lifespan.	The production and approval of a Decommissioning Programme will be required under Section 105 of the Energy Act 2004 (as amended).

18.5.5 Worst case scenario

As detailed in chapter 7: EIA methodology, this assessment considers the worst case scenario for the offshore Project parameters which are predicted to result in the greatest environmental impact, known as the 'worst case scenario'. The worst case scenario represents, for any given receptor and potential impact, the design option (or combination of options) that would result in the greatest potential for change. From the SLVIA perspective the key factors which contribute to the magnitude of change are as follows:

- The maximum footprint and height above sea level that the WTGs could occupy;
- Height of the WTG hubs and blades;
- Quantity of the WTGs;
- Arrangement of the WTGs, and their perceived visual density;

- Effect of the earth's curvature upon the layout; and
- Relation of WTGs with horizon and views of open sea.

As mentioned above, it is not yet possible to confirm the final layout of the WTGs within the OAA, which will depend on final Project design, WTG choice, seabed conditions and environmental considerations. At this stage of the offshore Project, to ensure it is future proofed, the maximum number of the largest WTGs have been assessed. The WTGs have been weighted along the perimeter of the OAA using the smallest WTG spacing (associated with the largest WTG parameters) This represents the maximum effect in terms of the proximity, scale, spread, density and prominence of the WTGs from receptors around the coastline. The number of WTGs, regardless of size, is considered to be up to a maximum of 125. Therefore, the utilisation of a smaller WTG size does not increase the number of WTGs beyond this number. The specific parameters of the worst case scenario are provided in Table 18-30. The worst case layout is presented in Figure 18-3. An indicative layout presenting an example of what the layout may be refined to post-consent, is presented in Figure 18-4. This indicative layout is presented only to provide an understanding of how the layout may change and to demonstrate further that the worst case layout is considered to reflect the worst case (as determined for SLVIA) for all SLVIA receptors around the coastline and is not an unrealistic worst case. However, that said, it is unlikely that WTGs will be present along all the southern and eastern boundaries of the OAA (i.e. nearest to the coast), therefore reducing the magnitude of impact from that assessed at some viewpoints based on the final WTG layout.

It is also important to note that the worst case is dependent upon the particular location from which the WTGs are viewed and its relative orientation and elevation. Due to the OAA's position in relation to both the Scottish mainland and Orkney, only its southern, south-eastern and eastern boundary are facing the coast, from where the layout and/or any changes of / in the layout would be observable. Along with distance, the shape of the site's envelope exerts an influence over how the offshore Project would be perceived from the coast. For example, the site's southern boundary is 17 km in length, accommodating 12 WTGs; its south-eastern boundary measures 19.4 km and accommodates 14 WTGs, whereas its eastern boundary is 8.2 km and accommodates six WTGs. These parameters define the horizontal angle of the view which would potentially be filled by WTGs. This effect has the most impact / the widest Horizontal Field of View (HFoV) occupied by WTGs, when the viewer is in direct view, from the northern coast of Scotland opposite the OAA towards the southern boundary of the OAA. It should however be considered that the length ratio of the OAA's southern boundary is a seventh of that of the northern coastline and therefore when moving from the centre of the southern boundary to the west or eastwards along the coast, the distance from the OAA gradually increases and consequently the magnitude of change decreases.

Due to the distance of the offshore Project from the coast within a vast seascape, the ability of the viewer (visual receptor) to judge the scale and/or distance is reduced, however, the distance remains the most influential factor. The OAA's longest south north diameter is 32.5 km, and in addition the effect of the earth's curvature, this plays a role in limiting views of the lower parts of the WTGs which are located from viewer's locations commensurate with distance.

OSPs within the OAA would bring more limited effects compared to those from the WTGs due to their smaller height compared to the WTGs. There could potentially be up to five OSPs within the OAA. A substation within the southern array would be approximately 24 km distance from Strathy Point. The visualisations do not show a substation as there would be no changes to effects assessed in this chapter.

Given that the worst case scenario is based on the design option (or combination of options) that represents the greatest potential for change, the development of any alternative options within the design parameters will give rise to no worse effects than those assessed in this impact assessment. Table 18-30 presents the worst case scenario for potential impacts on SLVIA during construction, operation and maintenance, and decommissioning.

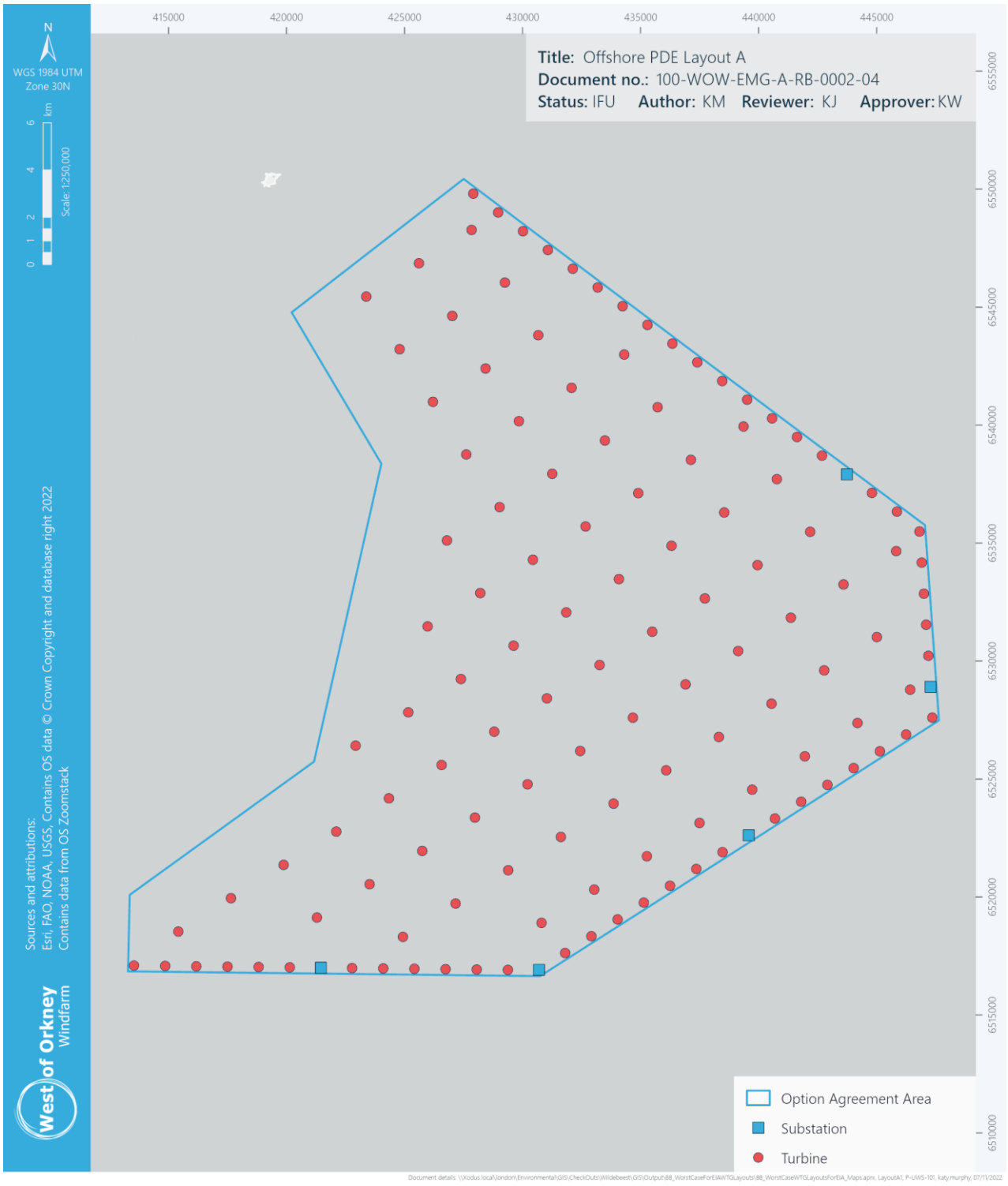

Figure 18-3 Worst case scenario layout used within the SLVIA

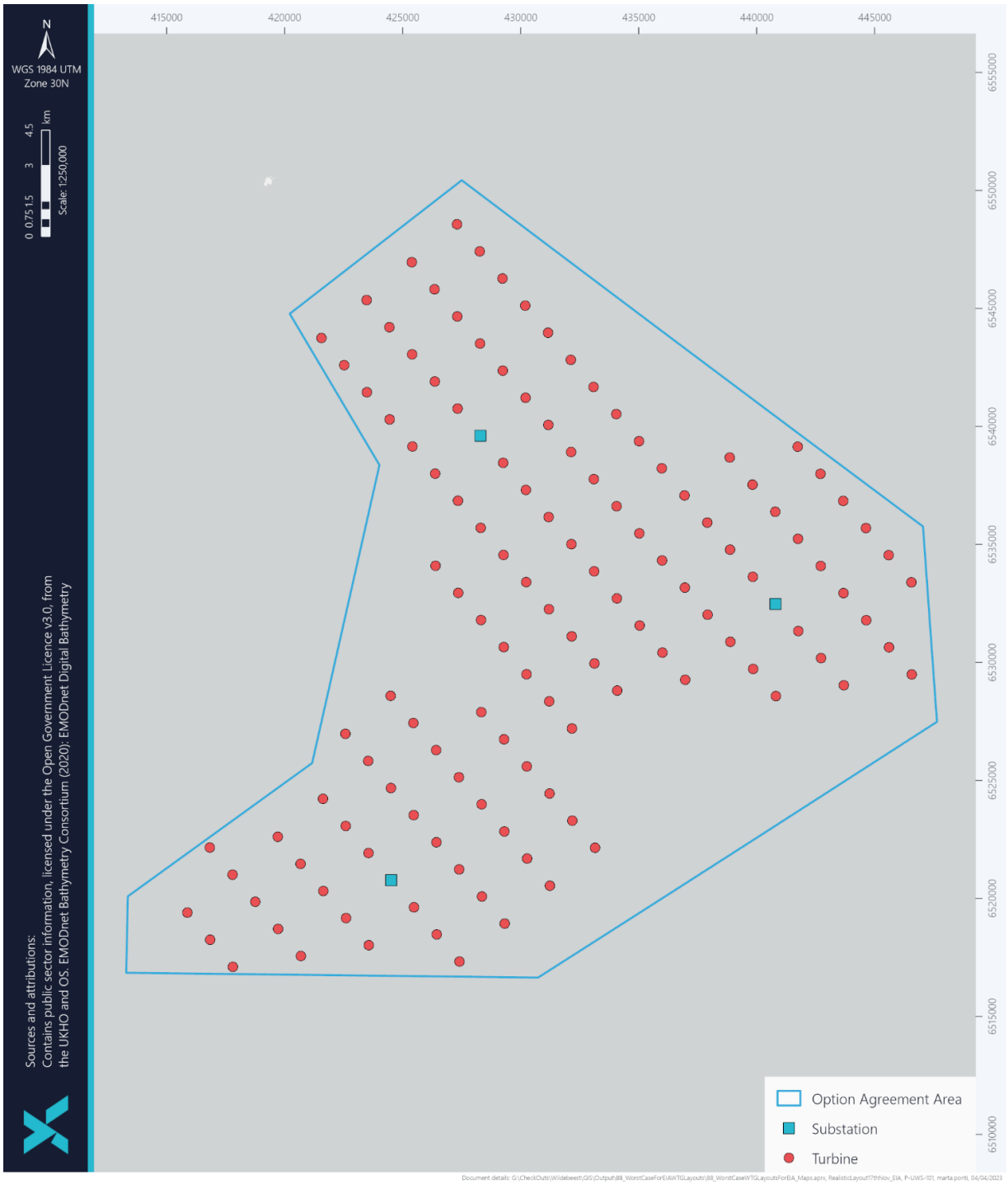

Figure 18-4 Indicative layout for the offshore Project

Table 18-30 Worst case scenario specific to SLVIA receptor impact assessment

POTENTIAL IMPACT	WORST CASE SCENARIO	JUSTIFICATION
Construction (and pre-construction)		
Temporary impacts of construction work for the offshore windfarm and substation(s).	• Pre-construction activities including geophysical surveys, UXO clearance, pre-lay grapnel, boulder clearance and bedform clearance; • Maximum area of OAA developed totalling 657 km^2; • Up to 125 WTGs, and up to 359.52 m upper tip height above LAT with a minimum spacing of 1,320 m for the largest WTG; • Up to five OSPs; • Up to 30 marine vessels and cranes present throughout the offshore Project area at one time; and • Construction of up to four years (with an additional year of pre-construction activities e.g., UXO).	The worst case parameters represent the maximum influence of construction of the WTGs and offshore substations that would potentially affect seascape, landscape and visual receptors during the construction stage. The worst case scenario is presented by the maximum number of the largest WTGs. The WTGs have been weighted along the perimeter of the OAA using the smallest WTG spacing (associated with the WTG parameters). This represents the maximum effect in terms of the proximity, scale, spread, density and prominence of the WTGs from receptors around the coastline Figure 18-3.
Temporary impacts of construction work for the HDD at landfall.	HDD activities within the landfall area and presence of construction vessels offshore from the landfall (1 x cable lay vessel and up to 3 x support / guard vessels);	
Operation and maintenance		

POTENTIAL IMPACT	WORST CASE SCENARIO	JUSTIFICATION
Long-term impacts of offshore windfarm and substation(s).	• Maximum area of OAA developed totalling 657 km^2; • Up to 125 WTGs, and up to 359.52 m upper tip height above LAT with a minimum spacing of 1,320 m for the largest WTG; • Up to five OSPs; • Turbine lighting to meet aviation and navigation requirements, subject to Civil Aviation Authority (CAA) and MoD approval, including: – 2 no. medium intensity 2,000 candela (cd) CAP393 lights mounted on the nacelles of the WTGs, which are located around the perimeter (61 x 2 no. lights); – 200cd red CAP437 & Search and Rescue (SAR) implemented into a single light for helicopter winching and SAR on all WTGs; – Significant peripheral structures will be lit with lights visible from all directions in the horizontal plane. It is anticipated these lights will be synchronised to display a special mark characteristic, flashing yellow, with a range of not less than five nautical miles; and – Intermediate structures on the periphery will be marked with flashing yellow lights which are visible to the mariner from all directions in the horizontal plane with a flash character distinctly different from those displayed on the Significant Peripheral Structures (SPS) and with a range of not less than 2 nautical miles. • Up to 19 vessels present at one time; and • Operational life of 30 years.	The worst case parameters represent the maximum WTG size and the assumed number of WTGs, and maximum number and size of the offshore substations that would potentially affect seascape, landscape and visual receptors. The worst case scenario is presented by the maximum number of the largest WTGs. The WTGs have been weighted along the perimeter of the OAA using the smallest WTG spacing (associated with the WTG parameters). This represents the maximum effect in terms of the proximity, scale, spread, density and prominence of the WTGs from receptors around the coastline.
Decommissioning		

POTENTIAL IMPACT	WORST CASE SCENARIO	JUSTIFICATION
Temporary impacts of decommissioning work for the offshore windfarm and substation(s).	The detail and scope of the decommissioning works will be determined by the relevant legislation and guidance at the time of decommissioning and will be agreed with the regulator. It is anticipated that for the purposes of a worst case scenario, the impacts will be no greater than those identified for the construction stage.	

18.6 Assessment of potential effects

18.6.1 Potential effects during construction (and pre-construction)

Effects due to the construction of the West Orkney Offshore WTGs and offshore substations are summarised in Table 18-20. Construction activities would involve the temporary movement of vessels and the use of large cranes to erect the offshore infrastructure.

The landscape receptors would be likely to experience indirect effects attributable to the construction works that are markedly different to the operational effects within the extent of the windfarm site and their immediate localities. Within these areas, during construction, the seascape character would be influenced directly by the construction activities, including lighting. The long distances and sense of separation between the construction activities and the coastal landscape types would limit the influence the temporary works would have over their character/ qualities.

With regards to potential effects on visual receptors during construction, visibility of the vessel movements, crane operations, WTG construction and lighting would be experienced by people on boats and ships and by receptors onshore.

The timing and duration of the works will result in different types and duration of effects:

- UXO and boulder clearance - temporary effects;
- Site preparation activities - temporary effects;
- Installation of inter-array cables, offshore export cables and interconnector cables - temporary effects;
- Installation of jacket piles or monopiles and foundations – temporary during construction but resulting in a permanent effect during operation (for elements above water); and
- Construction of the WTGs and OSPs - temporary during construction but resulting in a permanent effect during operation (for elements above water).

The construction programme occurs over a four year period (with a year prior for pre-construction activities). Over this four year period WTGs and OSPs will be installed, resulting in a gradual increase in presence of visible infrastructure in the OAA. At the point of commissioning all WTGs and OSPs will be constructed and seascape, landscape and visual effects during the construction stage would be similar in scale to those experienced when the Project is operational.

The effects on seascape / coastal character, landscape character and views and visual amenity are considered at a high level in the following sections.

18.6.1.1 Effects on seascape / coastal character

Construction stage effects on seascape character will occur as a result of the construction activities, including laying of array cables, the presence of jack-up vessels and/or dynamic positioning heavy lift vessels during the construction stage for the installation of foundations substructures and WTGs; windfarm service vessels and accommodation vessels; and partially constructed offshore elements; all of which may combine to alter the seascape / coastal character

of the area within the OAA and the perceived character of the wider seascape through visibility of the construction activities. The seascape character would be influenced directly by the construction activities and the coastal areas would be likely to experience indirect effects.

Directly affected would be the landfall areas of Crosskirk and Forss where the construction of the offshore cable route would introduce visibility of further vessels and activity particularly during the laying of the near shore cables, which would introduce visibility of a plough or trenching tool on the nearshore waters. However, this localised high magnitude of change would also be temporary, lasting only for a few days.

Any temporary accommodation (e.g. flotels) is anticipated to be located within existing port/harbour developments and subject to future permissions and licencing requirements if not accommodated in existing permissions and licences. It is expected that these structures would be absorbed by the existing harbour developments.

The effects arising as a result of the construction of the offshore Project are assessed as being of the same magnitude and significance on all seascape / coastal character receptors as those arising due to the operation and maintenance of the Project, with the residual effects being short-term and temporary, occurring during the length of the construction stage and differing in nature from the operational effects is mainly due to the influence of the larger number of various construction vessels being present in the seascape during the construction stage compared to the reduced numbers of vessels present during the operational and maintenance stage.

18.6.1.2 Effects on landscape character

Construction stage effects on landscape character will occur as a result of the construction activities, including laying of array cables, the presence of jack-up vessels and / or dynamic positioning heavy lift vessels during the construction stage for the installation of foundations substructures and WTGs; windfarm service vessels and accommodation vessels; and partially constructed offshore elements; all of which may combine to alter the perceived character of the wider landscape through visibility of the construction activities.

The effects arising as a result of the construction of the offshore Project are assessed as being of the same magnitude and significance on all landscape character receptors as those arising due to their operation and maintenance, with the residual effects being short-term and temporary, occurring during the length of the construction stage and differing in nature from the operational effects mainly due to the influence of the larger number of various construction vessels being present in the seascape during the construction stage compared to the reduced numbers of vessels present during the operational and maintenance stage.

18.6.1.3 Effects on views and visual amenity

Construction stage effects on views and visual amenity will occur as a result of the construction activities, including laying of array cables, the presence of jack-up vessels and/or dynamic positioning heavy lift vessels during the construction stage for the installation of foundations substructures and WTGs; windfarm service vessels and accommodation vessels; and partially constructed offshore elements; all of which may combine to alter the views and visual amenity through visibility of the construction activities.

The effects arising as a result of the construction of the offshore Project are assessed as being of the same magnitude and significance on all viewpoints and visual receptors as those arising due to their operation and maintenance, with the residual effects being short-term and temporary, occurring during the length of the construction stage and differing in nature from the operational effects mainly due to the influence of the larger number of various construction vessels being present in the seascape during the construction stage compared to the reduced numbers of vessels present during the operational and maintenance stage.

18.6.2 Potential seascape and landscape effects during operation and maintenance

18.6.2.1 Viewpoint assessment

The assessment of effects attributable to the offshore Project is informed and based on the representative viewpoints assessment. The viewpoint descriptions / assessment are set out in SS16: SLVIA Viewpoint Assessment and should be read alongside the Visualisations (the photographs, wirelines and photomontages) supporting this SLVIA (Figures 18.VP1-18.VP28) in SS20: SLVIA Visualisations (with all WTGs enhanced with 'sufficient contrast'). The locations of each viewpoint are shown on Figures 18.8-18.10 and 18.11.1-18.11.3. A detailed description of the methods by which wirelines and photomontages are prepared is included in SS17: SLVIA Zone of Theoretical Visibility and Visualisations Methodologies.

The viewpoint assessment is summarised in Table 18-31.

18.6.2.1.1 Horizontal field of view (HFoV)

The viewpoints assessment summary Table 18-31 provides the HFoV occupied by the WTGs for each viewpoint. The HFoV measures the angle in between WTGs, which are located at a distance up to 36 km from the viewpoint. This HFoV calculation provides further analysis of the likely scale of effects attributable to the offshore Project as the HFoV reflects the effect that distance has on the apparent size of the offshore Project. The selected threshold of a 36 km reflects field survey experience and the visibility studies of White Consultants (2020a), NRW (2019) and BEIS (2020), which explored the potential visual effects of wind WTGs of 20 MW, finding that a Low magnitude of effects were likely beyond 35 km for large WTGs. Therefore the calculated HFoVs for this assessment indicate the extent of the closest and most visible area of the array. These closest WTGs up to 36.9 km are marked in red on the diagram.

Figure 18-5 presents an Illustrative diagram how the HFoV has been calculated for a viewpoint.

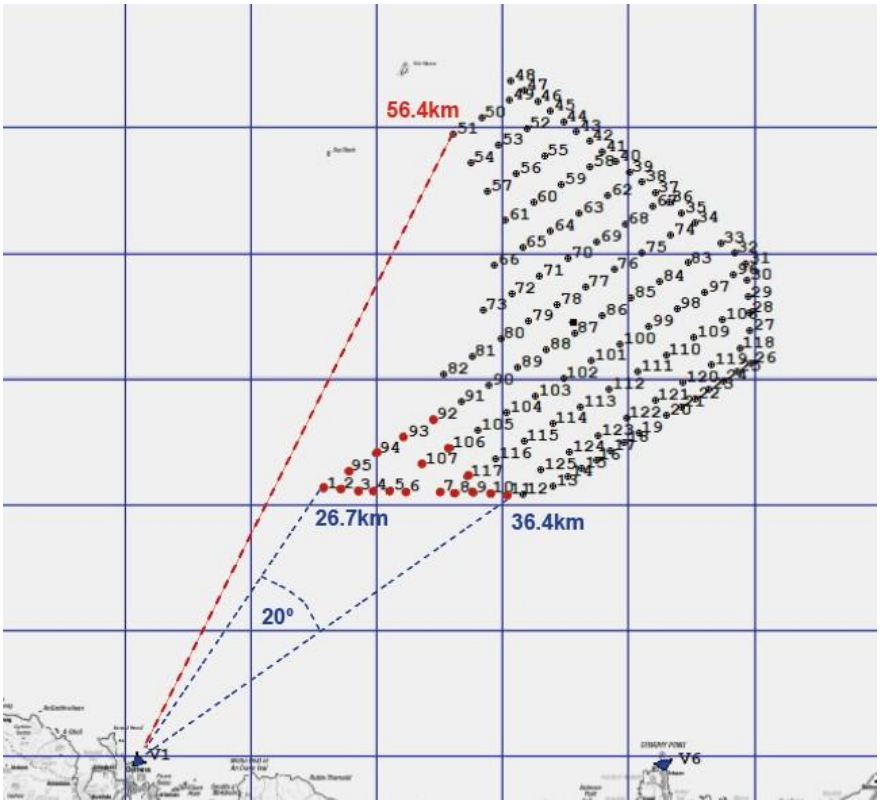

Figure 18-5 Illustrative diagram how the HFoV has been calculated for Viewpoint 1

Table 18-31 Viewpoints assessment: summary of effects of the offshore Project (significant effects are highlighted in bold and brackets)

VP REF	VIEWPOINT LOCATION	DISTANCE/ DIRECTION TO THE OFFSHORE PROJECT	HFOV OCCUPIED	SENSITIVITY	MAGNITUDE	SIGNIFICANCE
Sutherland & Caithness Viewpoints						
1	Faraid Head	26.7 km NE	20	High	Medium	Major / moderate (significant)
2	Ben Hope	41.8 km N	n/a (distance >36km)	High	Low	Moderate / minor
3	A838 A'Moine	31.2 km N	6	High to Medium	Low-negligible	Minor

VP REF	VIEWPOINT LOCATION	DISTANCE/ DIRECTION TO THE OFFSHORE PROJECT	HFOV OCCUPIED	SENSITIVITY	MAGNITUDE	SIGNIFICANCE
4	Achininiver beach	26.4 km N	40	High	High-medium	Major / moderate (significant)
5	Torrisdale Bay	29 km N	44	High	High-medium	Major / moderate (significant)
6	Strathy Point	24.3 km NW	54	High	High-medium	Major / moderate (significant)
7	Melvich Beach	30.5 km N	44	High	Medium	Major / moderate (significant)
8	Beinn Ratha	36.9 km NW	12	High	Low	Moderate
9	A836, Reay Kirk, Sandside Bay	34.6 km NW	22	High	Medium-low	Moderate
10	Crosskirk, St Mary's Chapel	33.7 km NW	32	High	Medium-low	Moderate (significant)
11	Ben Griam Beg Hillfort	50.9 km N	n/a (distance >36km)	High	Negligible	Negligible
12	Dunnet Bay - at Caravan Park	44.5 km NW	n/a (distance >36km)	High	Low-negligible	Minor
13	Dunnet Head	39.5 km NW	n/a (distance >36km)	High	Low	Moderate
14	Castle of Mey LB & GDL	47.8 km NW	n/a (distance >36km)	High	Low-negligible	Minor

VP REF	VIEWPOINT LOCATION	DISTANCE/ DIRECTION TO THE OFFSHORE PROJECT	HFOV OCCUPIED	SENSITIVITY	MAGNITUDE	SIGNIFICANCE
15	St John's Point	49.1 km NW	n/a (distance >46km)	High	Low-negligible	Minor
16	Beinn Freiceadain Hillfort	47.1 km NW	n/a (distance >46km)	High	Low-negligible	Minor
17	Kyle of Tongue - A838 causeway	32.6 km N	n/a (blade tip visibility only)	High	Low-negligible	Minor
18	A836 Between Thurso and Castletown	43.2 km NW	n/a (distance >36km)	High	Low-negligible	Minor
19	A836 Dounreay	34.3 km NW	30	High	Medium-low	Moderate (significant)
Orkney Viewpoints						
20	Scrabster-Stromness Ferry	26 km W	28	High-medium	Medium	Major / moderate (significant)
21	Rackwick Bay at Bothy bench	30.8 km W	8	High	Medium-low	Moderate (significant)
22	Path to Old Man of Hoy	28.9 km W	26	High	Medium	Major / moderate (significant)
23	Tor Ness, Hoy	37.6 km NW	n/a (distance >36km)	High	Low-negligible	Minor
24	Warebeth - on Warebeth Road to beach	34.8 km W	15	High	Low	Moderate

VP REF	VIEWPOINT LOCATION	DISTANCE/ DIRECTION TO THE OFFSHORE PROJECT	HFOV OCCUPIED	SENSITIVITY	MAGNITUDE	SIGNIFICANCE
25	Yesnaby - Brough of Bigging	33.2 km W	20	High	Low	Moderate
26	Bay of Skaill	35.7 km W / SW	3	High	Low	Moderate
27	Marwick Head Kitchener Memorial	36.9 km W / SW	n/a (distance >36km)	High	Low	Moderate
28	Earl's Palace Birsay	40 km SW	n/a (distance >36km)	High	Negligible	Minor

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in section 18.11.

18.6.2.2 Effects on seascape / coastal character

The offshore Project would be located within parts of the seascape that have not been influenced by existing windfarm developments in the North Atlantic, and which is presently perceived as a 'seascape with no development'. As such, the effects attributable to the offshore Project are assessed as an existing seascape context with no influence of existing wind energy developments, however, the coastal areas are already influenced by adjoining onshore windfarms, and wave energy developments.

18.6.2.3 Effects on coastal character of Sutherland

This section provides an assessment of the following coastal character types of Sutherland as shown in Figure 18.3 and Figure 11.3.1:

- Type 1: Remote High Cliffs; and
- Type 7: Kyles and Sea Lochs.

As noted in Section 18.4.6, the Coastal Edge High Cliffs and Sheltered Bays LCT (141) is assessed as part of Type 1: Remote High Cliffs due to its coastal relevance.

18.6.2.3.1 Type 1: Remote High Cliffs (overlaps with the Coastal Edge High Cliffs and Sheltered Bays (141) LCT)

Represented by:

- Viewpoint 1 Figure 18.VP1a-e Viewpoint 1 Faraid Head;
- Viewpoint 4 Figure 18.VP4a-e Viewpoint 4 Achininver Beach; and
- Viewpoint 6 Figure 18.VP6a-f Viewpoint 6 Strathy Point.

Note: Although Viewpoint 4 is within the nearby Coastal Crofts & Small Farms (144), it also represents views of Sheltered Bays.

Key characteristics which contribute to the sensitivity of the RCCA:

- Long stretch of high cliffs which are regularly interrupted by the location of bays;
- High cliffs and sheltered bays form the dominant characteristics within this landscape; and
- The cliffs create a strong and limiting linear edge where there is an equal emphasis of land and sea. In these areas views tend to be directed along the coast and out to sea. In contrast, the bays and beaches are sheltered by the surrounding cliffs.

Wide elevated and distant views are directed along the coast and out to the open sea, although on Orkney views of other islands are frequently gained from elevated locations. Views of boats are a focus within the maritime component of this type. The Northern quality of light often gives intense clarity in views.

Generally, highly valued coastal character and LCT as it overlaps with the Kyle of Tongue NSA and THC SLAs, which comprise most of the coast of Sutherland. Highly diverse and scenic character, a strong sense of naturalness and remoteness, on the edge of a wild remote landscape makes this character type highly sensitive. Therefore, it is assessed as having high value.

The coastal character type / LCT is defined by the sea and the coastal edge. The elevated cliffs are open and are exposed to the sea with medium-low susceptibility to the type of development proposed within an expansive sea horizon at 24 km distance at its closest point. However, the sheltered bays and inlets, and small islands are assessed as having higher susceptibility from the introduction of the offshore Project due to their intimate scale. Therefore, the overall susceptibility of the coastal character type / LCT is assessed as medium-high.

The sensitivity of the coastal character type / LCT is therefore assessed as High due to the high value and medium-high susceptibility.

The offshore Project is located outside the coastal character type / LCT therefore it will result in no direct changes to any of the key characteristics. In elevated locations the offshore Project would be perceived as part of the vast seascape. The offshore Project would not obstruct linear visual movement along the coastal edge and would not affect the focal dominance of the existing prominent natural or man-made elements such as coastal cliffs and lighthouses. However, the offshore Project would appear distant in views with the offshore foci on islands and stacks and to the cliff surfaces of the headlands reaching out into the sea. Due to the prevailing vast scale and elevated

position of the landform, including the distance from the offshore Project the overall magnitude of change is considered medium-low.

Evaluation of significance

Taking account of the High sensitivity and Medium-Low magnitude, the level of effect is therefore assessed as **Moderate** and **not significant** in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Due to the vast scale and elevated position of the coastal landform which allows the wind farm to appear more coherent in long distance views the effects attributable to the offshore Project are considered not significant in EIA terms.

Sensitivity	Magnitude of change	Level of effect
High	Medium-Low	Moderate
Significance of Effect - NOT SIGNIFICANT		

18.6.2.3.2 Type 7: Kyles and Sea Lochs

Represented by Viewpoint 17 Figure 18.VP17a-e: Kyle of Tongue - A838 Causeway.

Key characteristics which contribute to the sensitivity of the RCCA:

- Sea lochs tend to form a narrow inlet of water, strongly enclosed by steep high hills; kyles tend to be broader, surrounded by a low and gently sloped landform;
- Populated along their shores with small settlements concentrated at bridging points at the inlet mouth;
- Access routes are aligned around the shoreline or over the kyles via causeways;
- Kyles are often shallow with intertidal sand and mud flats; containing headlands have an increasingly exposed character with rocky shores and cliffs and views of open sea; and
- The containment of kyles and sea lochs limits experience of the open sea, with views focussing on land either side and on an often-mountainous interior.

Highly valued coastal character type which overlaps with part of the Kyle of Tongue NSA and THC SLAs, comprising most of the coast of Sutherland. Therefore, it is assessed as having high value.

The narrow channels of water are strongly contained by mountain and hill slopes. Medium scale in general, although mountains have a large vertical scale. Therefore, the overall susceptibility of the Kyles and Sea Lochs type from the introduction of the offshore Project is assessed as medium-high.

The sensitivity of the coastal character type is therefore assessed as High due to the high value and medium-high susceptibility.

The offshore Project is located outside the coastal character type therefore it will result in no direct changes to any of the key characteristics. Mountains and inlets of water form the key foci; generally, there are east-west views within

the Kyles/Sea lochs however the eye is drawn northwards towards the sea. Due to the location of the Kyle of Durness and Loch Eriboll, to the south-west of the offshore Project and the intervening topography, visibility would be largely limited.

The WTGs would come into views along the shores of the Kyle of Tongue, to the south of the offshore Project. From elevated locations on both sides of the Kyle, the offshore Project would appear at the broad mouth of the Kyle where a scattering of islands mirror the landform of the rocky coastal promontories and mark the transition from open sea to sheltered Kyle. This open sea aspect would be halfway filled by the offshore Project, in between small islands. Much of the key characteristics of the coastal character type are physical in nature and would not be affected or altered by the offshore Project during operation. Whilst visible from limited parts of the coastal character type, as illustrated in viewpoint 17, given the long intervening distance, the offshore Project would not affect the perception of these coastal features. The magnitude of change is therefore assessed as Low and locally Medium within the Kyle of Tongue.

Evaluation of significance

Taking account of the High sensitivity and Low magnitude within the Kyle of Durness and Loch Eriboll, the level of effect is therefore assessed as Moderate and not significant. However, the magnitude of change within the Kyle of Tongue is assessed as Medium and the level of effect would be **Major / moderate** and **significant** in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of change	Level of Effect
High	Low (Kyle of Durness and Loch Eriboll)	Moderate (Kyle of Durness and Loch Eriboll)
	Medium (Kyle of Tongue)	Major / moderate (Kyle of Tongue)

Significance of Effect – NOT SIGNIFICANT (Kyle of Durness and Loch Eriboll)

SIGNIFICANT (Kyle of Tongue)

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in 18.11.

18.6.2.3.3 Sutherland LCT – Sandy Beaches and Dunes (140)

Represented by:

- Viewpoint 5 Figure 18.VP5a-e Viewpoint 5 Torrisdale Bay; and
- Viewpoint 7 Figure 18.VP7a-d Viewpoint 7 Melvich Beach.

Key characteristics which contribute to the sensitivity of the RCCA:

- The LCT is defined by its wide-open space and extreme exposure, resulting in extensive visibility;
- Simple visual composition of sky, sea and land; and
- Dune area contains alternating high points and low pockets of semi-enclosure.

Highly valued LCT which is located within the Kyle of Tongue NSA and THC SLAs. The enclosed beaches are assessed as high-medium susceptibility from the introduction of the offshore Project, located over 26 km distance at its closest point. The sensitivity of the LCT is therefore assessed as High due to the high value and high-medium susceptibility.

The offshore Project is located outside the LCT therefore it will result in no direct changes to any of the key characteristics. There are only four beaches / bays along the Sutherland Coast. Balnakeil Bay and Tongue Bay are outwith the ZTV and would therefore be unaffected by the offshore Project. However, from Torrisdale Bay and Melvich Bay, the WTGs would appear in wide views across the open sea horizon and contrast with the visual composition of sky, sea and land to the north resulting in a Medium magnitude of change.

Evaluation of significance

Taking account of the High sensitivity and Medium magnitude, the level of effect is therefore assessed as **Major / moderate** and **significant** in EIA terms, primarily as a result of the views of the offshore Project seen from Torrisdale Bay and Melvich Bay. The overall characteristics of the LCT would however not be altered or significantly affected by the offshore Project and Balnakeil Bay and Tongue Bay would be unaffected by the offshore Project. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of Change	Level of Effect
High	Medium (Torrisdale Bay and Melvich Bay)	**Major / moderate** (Torrisdale Bay and Melvich Bay)

Significance of Effect – SIGNIFICANT (Torrisdale Bay and Melvich Bay)

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in 18.11.

18.6.2.3.4 Sutherland LCT - Coastal Crofts & Small Farms (144)

Represented by:

- Viewpoint 4 Figure 18.VP4a-e Viewpoint 4 Achininver Beach.

Key characteristics which contribute to the sensitivity of the RCCA:

- The LCT is defined by the occupation and activities of people, causing a complex variety of different land use characteristics;
- The extent of visibility tends to be limited within this type because of the screening effect of buildings, woodland and sloping landform; and
- Semi-enclosed landscape, where the scale of space is fairly small, quite intimate with views directed towards foreground details.

Highly valued LCT which is located within the Kyle of Tongue NSA and THC SLAs. Susceptibility to change from the introduction of the offshore Project is assessed as high-medium due to its intimate scale with views directed towards

the foreground details of houses, yet within the wider context, the backdrop hills and sea add diversity. The sensitivity of the LCT is therefore assessed as High due to the high value and high-medium susceptibility.

The offshore Project is located outside the LCT therefore it will result in no direct changes to any of the key characteristics. The LCT appears close to the coast and accommodates settlements, which are assessed separately as visual receptors. In landscape terms, the perceptual qualities of the coastal setting of the settlements would not be affected by the offshore Project. Settlements and clusters of houses on elevated slopes generally appear in views from the other side of the valleys or in views towards the hinterland. This farmed and settled landscape is seen in conjunction with intricate coastal features such as sandy beaches, dunes, rocky headlands and islands, where the offshore Project would not intervene in views or scenes. Therefore, the overall magnitude of change is considered to be Low.

Evaluation of significance

Taking account of the High sensitivity and Low magnitude, the level of effect is therefore assessed as Moderate and not significant in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of Change	Level of Effect
High	Low	Moderate

Significance of Effect - NOT SIGNIFICANT

18.6.2.4 Effects on coastal character of Caithness

This section provides assessment of the following RCCAs of Caithness as shown in Figures 18.3 and 18.11.2 (SS19: SLVIA Baseline Figures).

- RCCA 47 Portskerra;
- RCCA 46 Brims Ness;
- RCCA 45 Dunnet Bay and Thurso Bay; and
- RCCA 44 Scarfskerry and Dunnet Head.

18.6.2.4.1 RCCA 47 Portskerra

Represented by:

- Viewpoint 9 Figure 18.VP9a-e Viewpoint 9 A836, Reay Kirk, Sandside Bay; and
- Viewpoint 19 Figure 18.VP19a-e Viewpoint 19 A836 Dounreay.

Key characteristics which contribute to the sensitivity of the RCCA:

- 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;
- 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; and
- Views vary from open vistas at elevated locations to framed views within sheltered bays. Industrial scale energy developments often dominate views.

Undesignated, medium value RCCA within an immediate context of industrial scale energy developments has medium-low susceptibility from the introduction of the offshore Project, located over 30 km distance at its closest point. The sensitivity of the RCCA is therefore assessed as Medium due to the medium value and medium-low susceptibility.

The offshore Project is located outside the RCCA therefore it will result in no direct changes to any of the key characteristics. This stretch of coast has a north-west orientation onto the North Atlantic. The A836 is set back from the coast, but glimpsed views of the offshore Project from sections are available out to sea. Where access can be gained to the coast, wide open views of the North Atlantic are likely to be available. Due to the large coastal expanse versus large scale North Atlantic Ocean and the long intervening distance, the offshore Project would occupy a relatively narrow subtended angle of the view. Many of the key characteristics of the RCCA are physical in nature and they would not be affected or altered by the offshore Project during operation. Whilst visible from parts of the RCCA as illustrated in viewpoints 9 and 19, given the long intervening distance and a relatively narrow subtended angle of view, the offshore Project would not affect the perception of these coastal features. The magnitude of change is therefore assessed as Low.

Evaluation of significance

Taking account of the Medium sensitivity and Low magnitude, the level of effect is therefore assessed as **Moderate / minor and not significant** in EIA terms**.** The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of change	Level of Effect
Medium	Low	Moderate / minor

Significance of Effect - NOT SIGNIFICANT

18.6.2.4.2 RCCA 46 Brims Ness

Represented by Viewpoint 10 Figure 18.VP10a-e Viewpoint 10 Crosskirk, St. Mary's Chapel (SS20: SLVIA Visualisations).

Key characteristics which contribute to the sensitivity of the RCCA:

- 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;

- Occasional historic fortification and other remnants;
- Settlement mostly stepped well back from the coastal edge; and
- Open uninterrupted views from elevated positions across the Atlantic Ocean. Views from Cross Kirk Bay are heavily influenced by Forss Business and Technology Park.

Undesignated, medium value RCCA with an immediate context of industrial scale energy developments, has medium-low susceptibility from the introduction of the offshore Project at over 30 km distance at its closest point. The sensitivity of the RCCA is therefore assessed as Medium due to the medium value and medium-low susceptibility.

The offshore Project is located outside the RCCA therefore it will result in no direct changes to any of the key characteristics. This stretch of coast has a north-west orientation onto the Atlantic. The A836 is set back from the coast, but glimpsed views of sections are available. Where access is available to the coast, wide open views of the North Atlantic are likely to be available. Due to the large coastal expanse versus large scale North Atlantic Ocean and the long intervening distance, the offshore Project would occupy a relatively narrow subtended angle of the view. Therefore, the overall magnitude of change is considered to be Low.

Evaluation of significance

Taking account of the Medium sensitivity and Low magnitude, the level of effect is therefore assessed as **Moderate / minor** and **not significant** in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of change	Level of Effect
Medium	Low	Moderate / minor

Significance of Effect - NOT SIGNIFICANT

18.6.2.4.3 RCCA 45 Dunnet Bay and Thurso Bay

Represented by Viewpoint 12 Figure 18.VP12a-e Viewpoint 12 Dunnet Bay - at Caravan Park (SS20: SLVIA Visualisations).

Key characteristics which contribute to the sensitivity of the RCCA:

- 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 bays; and
- Elevated headlands towards Orkney.

Dunnet Bay is part of the locally designated Dunnet SLA, therefore the value of this more urbanised coast with the large harbour at Scrabster, is increased to medium-high and its susceptibility to change from the introduction of the offshore Project is medium at over 35 km distance at its closest point. The sensitivity of the RCCA is therefore assessed as Medium due to the medium-high value and medium susceptibility.

The offshore Project is located outside the RCCA therefore it will result in no direct changes to any of the key characteristics. Thurso Bay, Murkle Bay and the coastline to the north of Dunnet Bay are outwith the ZTV. Dunnet Bay is located over 44 km distance from the offshore Project. At this distance mainly the upper hubs and blades would appear above the horizon which would be barely perceptible as illustrated in viewpoint 12. Therefore, the offshore Project would not affect the perception of these coastal features. The magnitude of change is therefore assessed as Low-negligible.

Evaluation of significance

Taking account of the Medium sensitivity and Low-negligible magnitude, the level of effect is therefore assessed as Minor / negligible and not significant in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of change	Level of Effect
Medium	Low-negligible	Minor/ negligible

Significance of Effect - NOT SIGNIFICANT

18.6.2.4.4 RCCA 44 Scarfskerry and Dunnet Head

Represented by (SS20: SLVIA Visualisations):

- Viewpoint 13 Figure 18.VP13a-e Viewpoint 13 Dunnet Head; and
- Viewpoint 15 Figure 18.VP15a-e Viewpoint 15 St. John's Point.

Key characteristics which contribute to the sensitivity of the RCCA:

- 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; and
- Panoramic vistas from Easter Head at the Dunnet Head peninsula.

Dunnet Head is part of the locally designated Dunnet SLA, therefore the value of this RCCA overlooking the Pentland Firth is increased to medium-high and its susceptibility to change from the introduction of the offshore Project is medium, located over 39 km distance at its closest point. The sensitivity of the RCCA is therefore assessed as Medium due to the medium-high value and medium susceptibility.

The offshore Project is located outside the RCCA therefore it will result in no direct changes to any of the key characteristics. The eastern side of Dunnet Head is outwith the ZTV. The open sea horizon comprises approx. 110 degrees within which the offshore Project would appear, however, it. would not intervene in views across the Pentland Firth or those of the distinctive coastal landforms as illustrated in viewpoints 13 and 15. Therefore, the offshore Project would not affect the perception of these coastal features. The magnitude of change is therefore assessed as Low-negligible.

Evaluation of significance

Taking account of the Medium sensitivity and Low-negligible magnitude, the level of effect is therefore assessed as Minor / negligible and not significant in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of change	Level of Effect
Medium	Low-negligible	Minor / negligible

Significance of Effect - NOT SIGNIFICANT

18.6.2.5 Effects on coastal character of Orkney

This section provides an assessment of the following RCCAs of the West Mainland Orkney and Hoy as shown in Figures 18.3 and 18.11.3 (SS19: SLVIA Figures).

- RCCA 25 Breckness and Row Head (overlapped with Inclined Coastal Pasture LCT (302));
- RCCA 26 Marwick Head and Bay of Skaill (overlapped with Coastal Basin LCT (301) and Enclosed Bays LCT (305));
- RCCA 29 Graemsay;
- RCCA 36 West Hoy Cliffs; and
- RCCA 37 Rora Head and St John's Head (overlapped with Rugged Hills LCT (316) and Enclosed Bays LCT (305)).

18.6.2.5.1 RCCA 25 Breckness and Row Head (overlapped with the coastal edge of the Inclined Coastal Pasture LCT (302) and Cliffs – Orkney (307))

Represented by:

- Viewpoint 24 Figure 18.VP24a-e Viewpoint 24 Warebeth - on Warebeth Road to Beach; and
- Viewpoint 25 Figure 18.VP25a-e Viewpoint 25 Yesnaby - Brough of Bigging.

Key characteristics which contribute to the sensitivity of the RCCA:

- Open to the Atlantic to the west, more sheltered to the south-west, facing onto the narrow Hoy Sound;
- West facing coast comprises high, rugged indented cliffs, with distinctive features such as Yesnaby Castle sea stack, and a strong sense of isolation and exposure;
- East of Breckness the coast is lower-lying and more sinuous, with rocky platforms and shallow bays;
- Open, undeveloped rolling moorland rises away from the west coast. South-east of Black Craig the dominant land use is pasture, with scattered settlement on the slopes which rise away from the coast;
- Archaeological features include the remains of Breckness House and broch on the south-west coast, and the Yesnaby Gun Battery and promontory fort at Brough of Bigging on the west coast; and
- Views west focus on the open and uninterrupted Atlantic; views south across the Hoy Sound focus on the dramatic Hoy hills.

The RCCA is highly valued as part of the Hoy and West Mainland NSA. Due to the vast scale of the open Atlantic its susceptibility from the introduction of the offshore Project is medium-high, located over 33 km at its closest point. The sensitivity of the RCCA is therefore assessed as High-medium due to the high value and medium-high susceptibility.

The offshore Project is located outside the RCCA therefore it will result in no direct changes to any of the key characteristics. The offshore Project would be perceived as part of the vast sea plane. The OAA's eastern boundary is the shortest and can accommodate only up to eight WTGs in high density resulting in a limited HFoV occupied by WTGs in views from the east as illustrated in viewpoints 24 and 25. In addition the offshore Project would not obstruct the linear visual movement along the coastal edge or appear in views with the offshore foci being on such as stacks, the Hoy Sound and its dramatic rounded hills. Therefore, the offshore Project would not affect the perception of these coastal features. The magnitude of change is therefore assessed as Low.

Evaluation of significance

Taking account of the High-medium sensitivity and Low magnitude, the level of effect is therefore assessed as **Moderate / minor** and **not significant** in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of change	Level of Effect
High-medium	Low	Moderate / minor

Significance of Effect - NOT SIGNIFICANT

18.6.2.5.2 RCCA 26 Marwick Head and Bay of Skaill (overlapped with Coastal Basin LCT (301) and Enclosed Bays LCT (305))

Represented by (SS20: SLVIA Viewpoints Visualisations):

- Viewpoint 26 Figure 18.VP26a-e Viewpoint 26 Bay of Skaill;
- Viewpoint 27 Figure 18.VP27a-e Viewpoint 27 Marwick Head Kitchener Memorial; and
- Viewpoint 28 Figure 18.VP28a-e Viewpoint 28 Earl's Palace, Birsay.

Key characteristics which contribute to the sensitivity of the RCCA:

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

Being within the Orkney WHS Sensitive Area (see Section 18.4.6.4 and Figure 18.4, (SS19: SLVIA Baseline) but outside the Hoy and West Mainland NSA this coastal landscape has medium-high value. Due to its semi-enclosed bays, which vary in character, it has a high-medium susceptibility from the introduction of the offshore Project, located over 34 km distance at its closest point. The sensitivity of the RCCA is therefore assessed as High-medium due to the medium-high value and medium-high susceptibility. The offshore Project is located outside the RCCA therefore it will result in no direct changes to any of the key characteristics. The offshore Project would be perceived as part of the vast sea plane. In addition, it would not obstruct visual movement along the coastal edge or appear in views with the offshore foci being on, such as stacks. In sea views the WTGs would merge with the sea and sky as illustrated in viewpoints 26 and 27. Therefore, the offshore Project would not affect the perception of these coastal features. Many of the key characteristics of the RCCA are physical in nature and they would not be affected or altered by the offshore Project during operation. The magnitude of change is therefore assessed as Low.

Evaluation of significance

Taking account of the High-medium sensitivity and Low magnitude, the level of effect is therefore assessed as **Moderate / minor** and **not significant** in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of change	Level of Effect
High-medium	Low	Moderate / minor

Significance of Effect - NOT SIGNIFICANT

18.6.2.5.3 RCCA 29 Graemsay

Key characteristics which contribute to the sensitivity of the RCCA:

- Sheltered location between Hoy and the Mainland, separated by narrow sounds;
- Limited exposure to the open sea across Hoy Sound;
- Active tidal streams and boat traffic;
- Farming activity extends right up to the coastal edge;
- Enclosed shallow Bay of Sandside;
- Low, rounded convex profile, with a consistent pastoral land cover; and
- Visual foci provided by lighthouses visible across the sounds.

The RCCA is highly valued as part of the Hoy and West Mainland NSA. Due to its location within sheltered waters between the Mainland and Hoy its susceptibility from the introduction of the offshore Project, located over 35 km distance at its closest point is medium-high. The sensitivity of the RCCA is therefore assessed as High-medium due to the high value and medium-high susceptibility.

The offshore Project is located outside the RCCA therefore it will result in no direct changes to any of the key characteristics. The waters around the island are used by ferries and fishing vessels. The OAA's eastern boundary is the shortest and can accommodate only eight WTGs with high density, resulting in a limited HFoV occupied by WTGs in views from the east. To the north-west the Hoy Sound provides approximately 100 degrees wide views opening out to the North Atlantic, of which the offshore Project would occupy only a relatively narrow subtended angle of view and would not intervene in views of the dramatic hills of Hoy. In sea views the WTGs would merge with the sea and sky. Therefore, the offshore Project would not affect the perception of these coastal features. Many of the key characteristics of the RCCA are physical in nature and they would not be affected or altered by the offshore Project during operation. The magnitude of change is therefore assessed as Low.

Evaluation of significance

Taking account of the High-medium sensitivity and Low magnitude, the level of effect is therefore assessed as **Moderate / minor** and **not significant** in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of change	Level of Effect
High-medium	Low	Moderate / minor

Significance of Effect - NOT SIGNIFICANT

18.6.2.5.4 RCCA 36 West Hoy Cliffs

Represented by (SS20: SLVIA Visualisations):

- Viewpoint 21 Figure 18.VP21a-e Viewpoint 21 Rackwick Bay at Bothy Bench; and
- Viewpoint 23 Figure 18.VP23a-e Viewpoint 23 Tor Ness, Hoy.

Key characteristics which contribute to the sensitivity of the RCCA:

- South-west facing onto the open Atlantic where it meets the Pentland Firth;
- Relatively straight coast of large scale red and yellow sandstone cliffs rising to over 150 m, indented with numerous narrow geos;
- Rackwick is a large bay, with a broad beach of large boulders grading to sand, backed by a broad valley;
- Significant moorland hills march up to the coastal edge, and summits within 1 km of the coast include Mel Fea (324 m) and The Berry (199 m);
- There is no coastal development, apart from the small settlement of Rackwick where there are houses and farmland in and near the bay; and
- The inaccessibility, ruggedness and lack of human influence is recognised in the only WLA on Orkney, which includes this coast between Rackwick and Sweinn Geo.

The RCCA is highly valued as part of the Hoy and West Mainland NSA and Hoy WLA and the susceptibility of this relatively straight coast of large scale sandstone cliffs from the introduction of the offshore Project, located over 30.5 km distance at its closest point is, is medium-high. The sensitivity of the RCCA is therefore assessed as High due to the high value and medium-high susceptibility.

The offshore Project is located outside the RCCA therefore it will result in no direct changes to any of the key characteristics. The West Hoy Cliffs extend from Rackwick (30.5 km distance from the offshore Project) to Tor Ness in the south (37. km distance from the offshore Project). This approximately 12 km long coastline has a south-west orientation and therefore views across to Caithness and Sutherland are a key element on clear days. The offshore Project, however, would appear in views to the west and in views from Rackwick Bay, part of the offshore Project would be screened by Rora Head as illustrated in viewpoint 21.

Due to the main viewing direction being to the south-west and the offshore Project being perceived as part of the vast sea plain, the offshore Project would not affect the perceptual qualities of the RCCA. Due to the bay of Rackwick forming the foreground to scenic views south along this coast, as well as west to Rora Head, a small number of WTGs (up to four) would appear in framed views from Rackwick Bay out to the open Atlantic, being associated with the prominent headland. The magnitude of change is therefore assessed as Low.

Evaluation of significance

Taking account of the High sensitivity and Low magnitude, the level of effect is therefore assessed as Moderate and not significant in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of Change	Level of Effect
High	Low	Moderate

Significance of Effect - NOT SIGNIFICANT

18.6.2.5.5 RCCA 37 Rora Head and St John's Head (overlapped with Rugged Hills LCT (316) and Enclosed Bays LCT (305))

Represented by:

- Viewpoint 22 Figure 18.VP22a-e Viewpoint 22 Path to Old Man of Hoy (SS20: SLVIA Visualisations).

Key characteristics which contribute to the sensitivity of the RCCA:

- The north-west coast of Hoy juts out into the open Atlantic, and is exposed and open;
- This coast is one of the wildest parts of Orkney, undeveloped, rugged, exposed and inaccessible;
- The sandstone cliffs at St John's Head are the third highest sea cliffs in Britain, rising to 352 m. The Old Man, a 137 m sandstone sea stack, stands on harder volcanic rock;
- The high cliffs are backed by the smooth moorland hills of Hoy, which separate the cliffs from the eastern coast and inland glens;
- North of the Kame of Hoy the coast becomes more intricate and varied, with small inlets and headlands, and a lower rocky shoreline, overlooked by a small settlement at Braebuster; and
- The high cliffs of western Hoy offer expansive views across the Atlantic to the open horizon, and the main focus of views along the coast is the Old Man of Hoy.

The RCCA is located within the Hoy and West Mainland NSA indicating a high value. Due to its location being undeveloped, exposed and wild, its susceptibility from the introduction of the offshore Project, located over 27.7 km distance at its closest point is high. The sensitivity of the RCCA is therefore assessed as High due to the medium-high value and high susceptibility.

The offshore Project is located outside the RCCA therefore it will result in no direct changes to any of the key characteristics. The high cliffs of western Hoy offer expansive views across the Atlantic to the open horizon, and these open views are an important part of the character of this coast. The main focus of views along the coast is the Old Man of Hoy. The path from Rackwick offers sequential views over Sneuk Head, the Old Man of Hoy and further the higher cliffs to the north tower over the Old Man of Hoy.

The offshore Project would not intervene in views of the distinctive coastal landforms. Effects attributable to the offshore Project would be pronounced due to its appearance as a new element within the sea rather than due to its scale. However, it would appear in the context of the Old Man of Hoy as illustrated in viewpoint 22. Many of the key characteristics of the RCCA are physical in nature and they would not be affected or altered by the offshore Project during operation, although it would appear in contrast with the Old Man of Hoy within these expansive views across the Atlantic. The magnitude of change is therefore assessed as Medium-Low.

Evaluation of significance

Taking account of the High sensitivity and Medium-Low magnitude, the level of effect is therefore assessed as Moderate and significant in EIA terms, primarily as a result of the views of the offshore Project seen in contrast with the Old Man of Hoy from the high cliffs. The overall characteristics of the RCCA would however not be altered or significantly affected by the offshore Project. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of change	Level of Effect
High	Medium-Low	Moderate
	Significance of Effect - SIGNIFICANT	

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in 18.11.

18.6.2.6 Effects on landscape designations

The offshore Project is not located within any landscape planning designations. Therefore, there can be no physical or direct impact on landscape designations within the study area, which include NSAs, WLAs and SLAs.

As set out in section 18.4.6.3, the indirect effects on four SLAs and two NSAs are included in the assessment as follows:

- Oldshoremore, Cape Wrath and Durness SLA;
- Eriboll East and Whiten Head SLA;
- Farr Bay, Strathy and Portskerra SLA;
- Dunnet Head SLA;
- Kyle of Tongue NSA; and
- Hoy and West Mainland NSA.

As set out in section 18.4.6.3, a Wild Land Assessment has been excluded from the assessment as agreed with NatureScot on 31st May 2023.

The assessment of landscape designations differs from landscape character or visual assessment in that it considers the effects of the offshore Project on the SLQs, including views and perceptual qualities and the integrity of the designation as advised by NatureScot in their document 'Siting and Designing Wind Farms in the Landscape, Version 3a' (paragraph 3.11):

"The key test applied in relation to NSAs, but often employed for other valued landscapes too, is whether impacts would affect the integrity of a valued landscape."

In order to assist the assessment, a description of each of the landscape designations and their SLQs are documented by THC in respect of SLAs and by NatureScot in respect of NSAs. It is important to note that windfarm development

is not necessarily incompatible with the valued qualities of a landscape, this will depend on the nature and/or effects of the development and the nature of the SLQs. A visual effect on a view from the SLA for example, may or may not affect the SLQ and the integrity of the designation. In particular, the Landscape Institute further advises:

- "An internationally, nationally or locally valued landscape does not automatically or by definition have high susceptibility to all types of change."
- "It is possible for an internationally, nationally or locally important landscape to have relatively low susceptibility to change resulting from the particular type of development in question, by virtue of both the characteristics of the landscape and the nature of the proposal."
- "The particular type of change or development proposed may not compromise the specific basis for the value attached to the landscape."

(GLVIA 3, paragraphs 5.46-47)

The effects of the offshore Project on the SLQs have been assessed in accordance with the methodology set out in section 18.5 which accords with GLVIA 3. In summary, the sensitivity of each relevant SLQ is determined through a combination of value and the susceptibility of the SLQ to change posed by the offshore Project; this in turn is considered against the nature or magnitude of change in order to determine the level of effect on each receptor (SLQ). Each effect is described in terms of its geographical extent (through reference to the viewpoints and ZTV) and whether it is temporary / long term, beneficial / neutral / adverse.

In those situations where a significant adverse effect is identified, paragraph 212 of SPP advises that developments should only be permitted where any "*significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance*." Similarly, Policy 57 of the HwLDP states:

"For features of national importance, we will allow developments that can be shown not to compromise the natural environment, amenity and heritage resource. Where there may be any significant adverse effects, these must be clearly outweighed by social or economic benefits of national importance. It must also be shown that the development will support communities in fragile areas who are having difficulties in keeping their population and services."

18.6.2.6.1 Effects on Highland SLAs

SLAs are non-statutory designations that represent landscapes and features of local / regional importance and value within THC area. Further guidance on SLAs and their special qualities and features of importance is provided by THC in their Assessment of Highland SLAs.[51]

[51] *Assessment of Highland Special Landscape Areas, The Highland Council in partnership with SNH, commissioned report by Horner + Maclennan with Mike Wood Landscape Architect, June 2011.*

Oldshoremore, Cape Wrath and Durness SLA

Represented by:

- Viewpoint 1 Figure 18.VP1a-e Viewpoint 1 Faraid Head (SS20: SLVIA Visualisations).

Special qualities:

- Remote Coastline;
- Geological and landscape diversity; and
- Singular geographic and landscape features.

The SLA although locally designated is indicative of High-medium value. One of its characteristics is seaward views, which vary along the coast with westward views to the Outer Hebrides and northwards views over the rough seas and strong currents of the Pentland Firth. This variety is heightened by shipping and boat activity. The landscape is of High susceptibility to windfarm development particularly due to the seaward views to the west and north over the rough seas and strong currents of the Pentland Firth. As a result, the sensitivity of the SLA is assessed as High.

The SLA is located 25.5 km at its closest point to the offshore Project. The western coast of the SLA, south of Cape Wrath is located outwith the ZTV. This includes Oldshoremore Bay, Sandwood Bay and Kearvaig Bay. Balnakeil Beach, Smoo Cave and Kyle of Durness are also outwith the ZTV. ZTV coverage is limited in parts along the northern section of the SLA from Cape Wrath to east of Durness.The offshore Project is not within the SLA so the physical integrity of the SLA as a whole would remain intact. The only potential for effects would occur as a result of intervisibility between the SLA and the offshore Project. There would be no effect on two of its three special qualities – this includes the "geological and landscape diversity" and "singular geographic and landscape features." As these particularly relate to physical characteristics and the offshore Project would not be visible from the majority of these features. In relation to the "remote coastline", the offshore Project would not be visible from Oldshoremore, Kyle of Durness, Kearvaig and Balnakeil beaches and the dune systems, however, where visible from the outer edge of this coastline, the offshore Project would be visible as a distant feature within a marine environment across the vast open sea at over 25.5 km within a relatively narrow subtended angle of view. The magnitude of change is therefore assessed as Medium-Low.

Evaluation of significance

Taking account of the High sensitivity and Medium-Low magnitude, the level of effect is therefore assessed as Moderate and not significant in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse. As the offshore Project would not compromise the simplicity of the scenic quality of this remote coastline or sense of wildness along the coast or the interior, the effects attributable to the offshore Project are considered not significant.

Sensitivity	Magnitude of Change	Level of Effect
High	Medium - low	Moderate

Significance of Effect - NOT SIGNIFICANT

Eriboll East and Whiten Head SLA

Represented by:

- Viewpoint 4 Figure 18.VP4a-e Viewpoint 4 Achininver Beach (SS20: SLVIA Visualisations).

Special qualities:

- Striking geological and landscape contrasts;
- Striking views; and
- Sparse settlement and naturalness.

The SLA although locally designated is indicative of High-medium value. One of its characteristics is its dramatic framed views inland along the loch to the south-west and north towards the Atlantic. There is the perception of overriding sense of naturalness in this landscape. The landscape is of High susceptibility to windfarm development. As a result, the sensitivity of the SLA is assessed as High.

The SLA is located 23 km at its closest point to the offshore Project. ZTV coverage is intermittent along the eastern side of the loch with greater visibility along the northern end between Whiten Head and Achininiver Beach.

The loch and its adjoining landforms create a series of framed views, both inland to the dramatic mountains of north Sutherland, and northwards to the open sea, which combine with foreground sheltered waters and rugged shorelines to form impressive visual compositions.

The offshore Project is not within the SLA so the physical integrity of the SLA as a whole would remain intact. The only potential for effects would occur as a result of intervisibility between the SLA and the offshore Project. There would be no effect on two of its three special qualities – this includes the "striking geological and landscape contrasts" and "sparse settlement." As these particularly relate to physical characteristics and the offshore Project would not be visible from the majority of these features with very limited visibility from the small settlement of East Strathan.

Visibility from the eastern side of the loch would be limited along the A838 close to the Loch Eriboll entrance, on the eastern side of the loch on the slope of Ben Arnaboll due to intervening landform, such that the offshore Project would only be partially visible and would not interrupt the "framed views" out to the Atlantic. The offshore Project would not introduce a visual foci which would compete with Eilean Choraidh or Ard Neackie, nor would it interrupt the linear flow of views along the length of the loch. It would not intervene in the "framed views" to the mountains in the adjacent North West Sutherland and Kyle of Tongue NSA.

However, visibility of the offshore Project would increase from the northern part of the SLA between Whiten Head and Achininiver Beach where the WTGs would appear across the open aspect of the beach, which is formed by the sea horizon. The WTGs would not compete with the scale of the coastal landform in the view, but several blades would be seen above the low rocky coastal landform which forms the eastern side of the entrance to the beach. Whilst there would be a significant visual effect at Achininiver Beach, as demonstrated by Viewpoint 4, the magnitude of change on the special quality of "striking views" would be no greater than medium - low as the offshore Project won't affect "framed views" to the Atlantic from the northern part of the SLA, neither would it affect these views south-west towards the mountains.

Evaluation of significance

Taking account of the High sensitivity and Medium-Low magnitude, the level of effect is therefore assessed as Moderate and not significant in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

As the offshore Project won't affect "framed views" towards the Atlantic from the northern part of the SLA, and it would not affect views south-west towards the mountains, the overall effects upon the SLA are not significant.

Sensitivity	Magnitude of Change	Level of Effect
High	Medium-low	Moderate

Significance of Effect - NOT SIGNIFICANT

Farr Bay, Strathy and Portskerra SLA

Represented by:

- Viewpoint 6 Figure 18.VP6a-f Viewpoint 6 Strathy Point (SS20: SLVIA Visualisations).

Special qualities:

- Dramatically intricate coastline and forceful sea;
- Moorland and crofting mosaic;
- Big skies and extensive views; and
- Historical dimension.

The SLA although locally designated is indicative of High-medium value. One of its characteristics is its big skies and extensive views in fine weather including northwards across the sea to Orkney and along the coast to Cape Wrath and Dunnet Head. Dramatic framed views inland along the loch to the south-west and north towards the Atlantic. However, the buildings and structures at Dounreay form prominent features in views from Strathy Point. The landscape is of High susceptibility to windfarm development. As a result, the sensitivity of the SLA is assessed as High.

The SLA is located 24.3 km at its closest point to the offshore Project. ZTV coverage is illustrated along much of the SLA. The offshore Project is not within the SLA so the physical integrity of the SLA as a whole would remain intact. The only potential for effects would occur as a result of intervisibility between the SLA and the offshore Project.

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 the 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.

The offshore Project would not interrupt the linear nature and extensive views or compromise the intricate nature of the coast. There would be no effect on the "moorland and crofting mosaic" and "dramatically intricate coastline and

forceful seas" special qualities. The setting of Borve Castle would also not be compromised as assessed in chapter 16: Marine archaeology and cultural heritage. In relation to "big skies and extensive views", due to the intervening distance, the offshore Project would not appear in views inappropriate in scale in relation to the domestic scale of existing buildings and settlements. It would not intervene in important views to the mountains within the Kyle of Tongue NSA to the south. This SLA is closest to the offshore Project and positioned in line with the south-eastern corner of the OAA, thereby capturing WTGs both from the southern and south-eastern boundaries of the OAA and thereby presenting the widest HFoV occupied by WTGs of the offshore Project. However, the WTGs would appear within a vast (at least 180 degrees) open sea context, which accommodates offshore traffic. Whilst there would be a significant visual effect at Strathy Point, the overall magnitude of change on the special quality of "big skies and extensive views" would be no greater than medium - low.

Evaluation of significance

Taking account of the High sensitivity and Medium-Low magnitude, the level of effect is therefore assessed as Moderate and not significant in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Due to the vast scale and elevated position of the coastal landform which allows the wind farm to appear more coherent in long distance views the effects attributable to the offshore Project are considered not significant.

Sensitivity	Magnitude of Change	Level of Effect
High	Medium-low	Moderate

Significance of Effect - NOT SIGNIFICANT

Dunnet Head SLA

Represented by (SS20: SLVIA Visualisations):

- Viewpoint 12 Figure 18.VP12a-e Viewpoint 12 Dunnet Bay - at Caravan Park; and
- Viewpoint 13 Figure 18.VP13a-e Viewpoint 13 Dunnet Head.

Special qualities:

- Panoramic views from prominent headland and striking cliffs;
- Isolated moorland and lochans; and
- Contrasting bay and cliff landscapes.

The SLA although locally designated is indicative of High-medium value. One of its characteristics is its panoramic views from prominent headlands and striking cliffs looking across a flat terrain or a low seaward horizon. The landscape is of High susceptibility to windfarm development. As a result, the sensitivity of the SLA is assessed as High.

The SLA is located 38 km at its closest point to the offshore Project. ZTV coverage is illustrated along the western edges of the SLA. The offshore Project is not within the SLA so the physical integrity of the SLA as a whole would

remain intact. The only potential for effects would occur as a result of intervisibility between the SLA and the offshore Project.

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. There would be no or very limited effect on the "isolated moorland lochans" and "contrasting bay and cliff landscapes" special qualities.

In relation to the "panoramic views from prominent headlands and striking cliffs", due to the long, intervening distance the offshore Project, would not impinge on views towards the headland from the east and west or the expansive panorama seen from Dunnet Head itself as illustrated in viewpoint 13. It would not disrupt the gentle curve of Dunnet Bay and its qualities of seclusion neither would it compromise the perceived large scale of the Headland and the peninsula's distinctive landmark qualities. The overall magnitude of change is therefore assessed as Low.

Evaluation of significance

Taking account of the High sensitivity and Low magnitude, the level of effect is therefore assessed as Moderate / minor and not significant in EIA terms. The nature of these effects would be indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of Change	Level of Effect
High	Low	Moderate / minor

Significance of Effect - NOT SIGNIFICANT

18.6.2.6.2 Effects on National Scenic Areas

This assessment of the effects of the offshore Project on the SLQs of the Kyle of Tongue NSA and Hoy and West Mainland NSA follows the NatureScot working draft '*Guidance for Assessing the Effects on Special Landscape Qualities*', November 2018.

Kyle of Tongue NSA

The Kyle of Tongue NSA is located 24.4 km south of the offshore Project at its closest point. Viewpoints 2, 5 and 17 are located within the NSA. The assessment comprises four stages:

- Stage 1: Kyle of Tongue NSA Description and summary of SLQs;
- Stage 2: Defining the assessment study area and selection of relevant SLQs for assessment. The assessment is supported by ZTV, viewpoint analysis and site survey;
- Stage 3: Assessment of SLQs, noting any relevant landscape characteristics that underpin the SLQs, how the area is experienced by people and opportunities for further mitigation; and
- Stage 4: Statement of Significance - providing a summary of the assessment, noting the effects on the SLQs and the implications for the integrity of the designation.

Stage 1: NSA Description and Summary of Special Landscape Qualities (SLQs)

The Kyle of Tongue NSA boundary is illustrated in Figures 18.4 and 18.11.1 (SS19: SLVIA Figures) which is overlapped by the ZTV, indicating the maximum extent of theoretical visibility across the NSA. Areas within the NSA, from where the offshore Project may be theoretically visible, range in distance from 24.4 km at Eilean nan Ron to 46 km distance at the south-eastern slopes of Ben Hope. The NSA is described in the SNH description from Scotland's Scenic Heritage 1978 as follows:

"*Ben Hope (927 m) and Ben Loyal (764 m) are well known as two of the finest mountains in the north of Scotland. Their isolation in the landscape emphasises on the one hand the massive asymmetric cone of Ben Hope which dominates the northern seaboard, and on the other, the stately succession of granite peaks of Ben Loyal which form a compelling skyline at the head of the Kyle of Tongue.*

The Kyle of Tongue itself exhibits a constantly changing character with the ebb and flow of the tide, and the varied woodlands and pattern of crofting settlements along its shores add landscape diversity to the scenic relationship it enjoys with the two bens. The coastline at the mouth of the Kyle, with its islands, cliffs and indented bays with sandy beaches and crofting settlements, forms a visually related coastal extension to the inner part of the Kyle. This character extends in undiminished quality to the mouth of the Naver in Torrisdale Bay."

This description was retained by the 2010 SNH report which supplemented the NSA description by providing a list of the 'special qualities' of the Kyle of Tongue NSA (referred to here as SLQs) summarising these as follows:

- "*An ever-present backdrop of mountains;*
- *The Kyle – a link from an inhabited coast to a wild, moorland;*
- *Scale, from domestic to monumental;*
- *The constantly changing character of the Kyle;*
- *Rich variety of coastal scenery; and*
- *Distinct pattern of settlement.*"

The NSA description may be further updated by acknowledging that the special qualities and scenic value of the NSA remain strong today. This is despite development within the NSA since it's designation, including the construction of occasional residential properties and windfarm development (plus Dounreay) that is visible from several locations in the hills beyond the NSA boundary.

Stage 2: study area and SLQ selection

The ZTV shown in Figure 18.11.1 (SS19: SLVIA Figures) indicates theoretical visibility in the following areas of the NSA as follows:

- North end of the NSA at Torrisdale and Skerray;
- Mouth of the Kyle comprising Eilean nan Ron and the Rabbits Islands, and settlements of Talmine and Midtown;

- Limited areas on either side of the Kyle including eastern end of the causeway and largely limited to upper slopes; and
- Summits and northern (and limited eastern) slopes of Ben Hope and Ben Loyal.

In addition to the three viewpoints illustrated from the NSA, a grid of other viewpoints and interconnected routes have been examined on site with the aid of ZTV maps and wirelines. Some of these locations include Ben Loyal, inner areas of the Kyle, Talmine Bay, Midtown, Skerray and Ben Tongue.

The assessment has taken account of how the area is perceived and used by people and the following recreational viewpoints, routes and destinations within the ZTV have been noted in the assessment:

- Views experienced by walkers from mountain summits and routes of Ben Hope and Ben Loyal. All the summit views would be experienced as wide panoramic views typically 360° and viewing over long distances;
- Views from other parts of the NSA including the North Coast 500 as it passes through the NSA; and
- Views from Torrisdale Bay and Talmine Bay.

Views from settlements within the NSA have also been noted in the assessment.

The offshore Project is not within the NSA so the physical integrity of the NSA as a whole would remain intact. The only potential for effects would occur as a result of intervisibility between the NSA and the offshore Project.

The following SLQs summarised in the SNH Commissioned Report No.374, 2010 have been included in the assessment as they relate to perceptual aspects of the NSA.

- An ever-present backdrop of mountains;
- Scale, from domestic to monumental; and
- Rich variety of coastal scenery.

There would be no effect on the SLQs related to physical characteristics and the offshore Project would not be visible from Kinloch Lodge or Tongue House. The offshore Project would also not affect the distinct modern and historic physical pattern of settlement including boundaries or landscape features. The wild and remote land of heather, bog, loch, river and burn; rock, crag and high mountain corrie (physical characteristics) located within a WLA in the southern half of the NSA would also be unaffected by the offshore Project. For these reasons the following SLQs have been excluded from the assessment.

- The Kyle – a link from an inhabited coast to a wild, moorland;
- The constantly changing character of the Kyle; and
- Distinct pattern of settlement.

Stage 3: NSA assessment

A total of three SLQs (numbered 1-3) are considered relevant to this assessment and have been assessed here with a summary of the assessment provided in Stage 4.

SLQ 1: · An ever-present backdrop of mountains.

The SNH Commissioned Report No.374, 2010 further describes this special quality as follows:

"Ben Hope and Ben Loyal, standing isolated above the open moorland, are well known as two of the finest mountains in the north. Both hills rise above their eponymous lochs, and each has its own distinct profile. Ben Hope appears as a large asymmetric cone whereas Ben Loyal, 'The Queen of Scottish Mountains', forms a stately succession of granite peaks. They have a timeless and lofty presence, forming an ever-present backdrop and acting as landmarks over a wide area. They provide the whole locality with a sense of place and symbolise the boundary between the populated coast and the wild and generally uninhabited interior."

The relevant component of this SLQ is the 'isolated and distinct profiles' of the two lone mountains which can be seen within and towards the NSA from long distances in clear weather conditions. They also symbolise a boundary between the inhabited coast and the remote interior.

The sensitivity of this SLQ is assessed as High. This has been derived from the high value of the NSA designation and the high-medium susceptibility of this SLQ to change. The susceptibility of the SLQ has been assessed as high-medium given that existing windfarm development is visible from within the NSA, particularly from Ben Hope and Ben Loyal to the north-east and east.

Whilst visible from the summits of Ben Hope and Ben Loyal at over 42 km, the offshore Project would appear relatively low in the seascape as a distant feature where the front (closest) row of WTGs affects no more than 20° of the HFoV. It would be visible in very clear conditions given the long distance, with other existing windfarms appearing in the same HFoV as the offshore Project. The 'isolated and distinct profiles' of the two mountains would be unaffected by the offshore Project given its long-distance, distant feature and clear separation between the lone mountains and the offshore Project. Even when the two mountains are visible from beyond the NSA, the offshore Project would not affect their 'distinct profile' in these views given they would be visible in opposite directions and would continue to make their 'individual shapes easily recognisable.' Much of the remote interior of the NSA is outwith the ZTV and therefore the perception of a boundary between the inhabited coast and interior would be unaffected by the offshore Project.

The magnitude of change of the offshore Project affecting the 'isolated and distinct profile' of the two mountains whose 'individual shapes are recognisable' would be limited (Low) and the level of landscape effect on this SLQ would be Moderate / minor and Not Significant in EIA terms. The nature of this effect would be indirect, long term (reversible) and adverse.

SLQ 2: Scale, from domestic to monumental.

The SNH Commissioned Report No.374, 2010 further describes this special quality as follows:

"*The small domestic scale of crofting and other activity around the coastal shores contrasts markedly with the monumental outer landscape presented by the mountains to the south and the open ocean to the north.*"

The relevant component of this SLQ is the 'scale' of the coastal crofting activities with those of the mountains to the south and open ocean to the north.

The sensitivity of this SLQ is assessed as High. This has been derived from the high value of the NSA designation and the high susceptibility of this SLQ to change. The susceptibility of the SLQ has been assessed as high due to the perceived scale of the settled coast and the incised interior of the Kyle where size indicators and a pattern of smaller scale landform is evident.

The offshore Project would come into views along the shores of the Kyle of Tongue at around 25 km distance. From elevated locations on both sides of the loch, the offshore Project would appear at the broad mouth of the Kyle where a scattering of islands mirror the landform of the rocky coastal promontories and mark the transition from open ocean in the north to the coastal crofting activities along the shore to the monumental scale of the mountains further to south. This 60-degree open sea horizon would be halfway filled by the offshore Project, in between small islands. The open ocean to the north features as the special quality of monumental scale contrasting with the small-scale coastal shores. The offshore Project would to a degree contrast with the 'scale' of the settled coast with the open ocean and the incised interior of the Kyle. It may be noted that views of the offshore Project from within the middle and inner Kyle including from much of the causeway as illustrated in Viewpoint 17 would be very limited to negligible.

The magnitude of change of the offshore Project affecting this SLQ would be Medium and the level of landscape effect on this SLQ would be Major / moderate and Significant in EIA terms. The nature of this effect would be indirect, long term (reversible) and adverse.

SLQ 3: Rich variety of coastal scenery.

The SNH Commissioned Report No.374, 2010 further describes this special quality as follows:

"From the sheltered Kyle to islands exposed to the full force of the ocean, the area exhibits a rich variety of coastal scenery. This includes both soft landscapes of sand and mud and harder landscapes of rock and cliff.

One of the highlights of the north coast is the long, sandy Torrisdale Bay."

The relevant component of this SLQ is the 'long, sandy Torrisdale Bay' noted as a highlight of the north coast.

The sensitivity of this SLQ is assessed as High. This has been derived from the high value of the NSA designation and the high susceptibility of this SLQ to change.

One of the rich variety of features of coastal scenery is the long, sandy Torrisdale Bay, which is represented by Viewpoint 5, where the closest WTG is at 29 km and the HFoV occupied by WTGs would be 44 degrees out of the visible 60 degrees of the sea horizon. Although the WTGs would be seen as distant features in comparison with the scale of the coastal landform and cliffs, they would be discernible across the open sea horizon, resulting in High-medium magnitude of change. The WTGs would appear in wide views across the open sea horizon and contrast with the visual composition of sky, sea and land to the north.

In relation to the coastal scenery along the northern coastline, the offshore Project would appear at the broad mouth of the Kyle where a scattering of islands mirror the landform of the rocky coastal promontories and mark the transition from open sea to sheltered Kyle in the south. This 60-degree open sea horizon would be halfway filled by the offshore Project, in between small islands.

The magnitude of change of the offshore Project affecting this SLQ would be High-medium (mainly along the northern coastline including the seaward views from Torrisdale Bay) and the level of landscape effect on this SLQ would be Major / moderate and significant in EIA terms. The nature of this effect would be indirect, long term (reversible) and adverse.

Stage 4: statement of significance

The offshore Project is not located within the Kyle of Tongue NSA, being 24.4 km from the nearest point of theoretical visibility within the NSA. In assessing the indirect effects of the offshore Project on the perceptual SLQs of the NSA the assessment has concluded that there would be significant effects on parts of two SLQs – SLQ 2: Scale, from domestic to monumental and SLQ 3: Rich variety of coastal scenery (particularly in relation to Torrisdale Bay). There would be no significant effects on the remaining SLQs or the overall integrity of the NSA.

A summary of the SLQ assessment for the NSA is set out in Table 18-34.

Table 18-32 SLQ Assessment for the Kyle of Tongue NSA

SPECIAL LANDSCAPE QUALITY	SENSITIVITY	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
An ever-present backdrop of mountains	High	Low	Moderate / minor
The Kyle – a link from an inhabited coast to a wild, moorland	Not assessed – physical characteristic that could not be affected by the offshore Project which is well beyond the NSA boundary. The wild and remote land of heather, bog, loch, river and burn; rock, crag and high mountain corrie located within a WLA in the southern half of the NSA would be unaffected by the offshore Project.		
Scale, from domestic to monumental	High	Medium	Major / moderate (significant)
The constantly changing character of the Kyle	Not assessed – physical characteristic that could not be affected by the offshore Project which is well beyond the NSA boundary.		
Rich variety of coastal scenery	High	High-medium	Major / moderate (significant)
Distinct pattern of settlement	Not assessed – physical characteristic that could not be affected by the offshore Project which is well beyond the NSA boundary. The modern and historic physical pattern of settlements including their boundaries would not be affected by the offshore Project.		

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in 18.11.

Hoy and West Mainland NSA

The Hoy and West Mainland NSA is located 26.8 km east of the offshore Project at its closest point. Viewpoints 21, 22, 24 and 25 are located within the NSA. The assessment comprises four stages:

- Stage 1: Hoy and West Mainland NSA Description and summary of SLQs;
- Stage 2: Defining the assessment study area and selection of relevant SLQs for assessment. The assessment is supported by ZTV, viewpoint analysis and site survey;
- Stage 3: Assessment of SLQs, noting any relevant landscape characteristics that underpin the SLQs, how the area is experienced by people and opportunities for further mitigation; and
- Stage 4: Statement of Significance – providing a summary of the assessment, noting the effects on the SLQs and the implications for the integrity of the designation.

Stage 1: NSA Description and Summary of SLQ

The Hoy and West Mainland NSA boundary is illustrated in Figures 18.4 and 18.11.3 (SS19: SLVIA Figures) which is overlapped by the ZTV, indicating the maximum extent of theoretical visibility across the NSA. Areas within the NSA, from where the offshore Project may be theoretically visible, range in distance from 26.8 km at Rora Head on Hoy to 45 km distance at South Rusky Hill on the West Mainland. The NSA is described in the SNH description from Scotland's Scenic Heritage 1978 as follows:

"The great ice-rounded eminences of the hills of North Hoy dominate the Orkney scene with a power that is scarcely in tune with their modest height (479 m). Their bold shape, fine grouping, soaring cliffs and headlands, including the famous stack of the Old Man of Hoy, are almost as important to the Caithness scene as they are in that of Orkney.

North Hoy has a particularly strong visual inter-relationship with the south-west mainland of Orkney, the pastoral character of which around the shores of the Loch of Stenness makes a good foil for the bold hills of Hoy. The basin of this loch is enclosed by low rolling hills of lush grassland, some arable land, scattered farm steadings and stone dykes with a noticeable lack of trees, giving a very open landscape, the character of which is enlivened by the abundant remains of ancient occupation.

This landscape culminates in the west in cliffed headlands like a rampart against the sea, which breaks through at Hoy Sound in a tidal race of impressive swiftness. The stone-built settlement of Stromness rising steeply out of its harbour further enhances the character of the area."

This description was retained by the 2010 SNH report which supplemented the NSA description by providing a list of the 'special qualities' of the Hoy and West Mainland NSA (referred to here as SLQs) summarising these as follows:

- *"A palimpsest of geology, topography, archaeology and land use;*
- *An archaeological landscape of World Heritage Status;*

- *The spectacular coastal scenery;*
- *Sandstone and flagstone as an essence of Orkney;*
- *A long-settled and productive land and sea;*
- *The contrast between the fertile farmland and the unimproved moorland;*
- *A landscape of contrasting curves and lines;*
- *Land and water in constantly changing combinations under the open sky;*
- *The high hills of Hoy;*
- *The townscape of Stromness, its setting and its link with the sea; and*
- *The traditional buildings and crofting patterns of Rackwick".*

The NSA description may be further updated by acknowledging that the special qualities and scenic value of the NSA remain strong today. This is despite development within the NSA since it's designation, including the construction of occasional residential properties and renewable energy development that is visible from several locations.

Stage 2: study area and SLQ selection

The ZTV shown in Figure 18.11.3 indicates theoretical visibility in the following areas of the NSA as follows:

- Western edge / cliffs and some western slopes of Hoy including Ward Hill;
- Western edge of Graemsay;
- Western edge / cliffs of the West Mainland between south of Stromness and Yesnaby; and
- Western part of Stenness and Orphir including Ward Hill.

In addition to the four viewpoints illustrated from the NSA, a grid of other viewpoints and interconnected routes have been examined on site with the aid of ZTV maps and wirelines. Some of these locations include the two Ward Hills, A964 in Stenness and Orphir via Midland, Gramesay, Knap of Trowieglen and South Rusky Hill.

The assessment has taken account of how the area is perceived and used by people and the following recreational viewpoints, routes and destinations within the ZTV have been noted in the assessment:

- Views experienced by walkers from hill summits and coastal walks along the western cliffs of Hoy and the West Mainland. All the summit views would be experienced as wide panoramic views typically 360° and viewing over long distances. Similarly views from the cliffs would be experienced as wide panoramic views typically 180° and viewing over long distances across the vast sea plain; and
- Views from other parts of the NSA including the Old Man of Hoy, Rackwick and Yesnaby.

Views from settlements and key roads within the NSA have also been noted in the assessment.

The offshore Project is not within the NSA so the physical integrity of the NSA as a whole would remain intact. The only potential for effects would occur as a result of intervisibility between the NSA and the proposed development.

The following SLQs summarised in the SNH Commissioned Report No.374, 2010 have been included in the assessment as they relate to perceptual aspects of the NSA.

- The spectacular coastal scenery;

- A landscape of contrasting curves and lines; and
- The high hills of Hoy.

There would be no effect on the SLQs related to physical characteristics and the offshore Project would not be visible from the Neolithic monuments of central Orkney or the settlement of Stromness and the traditional buildings and crofting patterns of Rackwick (outwith ZTV) (views from Rackwick Bay are assessed separately under visual effects given the bay is only part of wider Rackwick with theoretical visibility of the offshore Project). For these reasons the following SLQs have been excluded from the assessment.

- A palimpsest of geology, topography, archaeology and land use;
- An archaeological landscape of world heritage status;
- Sandstone and flagstone as an essence of Orkney;
- A long-settled and productive land and sea;
- The contrast between the fertile farmland and the unimproved moorland;
- Land and water in constantly changing combinations under the open sky;
- The townscape of Stromness, its setting and its link with the sea; and
- The traditional buildings and crofting patterns of Rackwick.

Stage 3: NSA assessment

A total of three SLQs (numbered 1-3) are considered relevant to this assessment and have been assessed here with a summary of the assessment provided in Stage 4.

SLQ 1: · The spectacular coastal scenery.

The SNH Commissioned Report No.374, 2010 further describes this special quality as follows:

"With their towering red cliffs, the Atlantic coastline creates a spectacular scene, enhanced by the presence of the Old Man of Hoy, the highest sea stack in the British Isles.

These vertical structures of red sandstone, home to numerous seabirds are both a landmark and an iconic image of the Orkney Islands, especially for those arriving by sea from across the Pentland Firth.

In comparison, the sheltered waters and gentle topography of the western approaches to Scapa Flow contrast with the Atlantic-battered western seaboard."

The relevant component of this SLQ is the varied coastal scenery from Hoy's high vertical cliffs including the Old Man of Hoy's iconic image from the Pentland Firth to the sheltered waters to Scapa Flow. This SLQ does not relate to the views from the coastline, rather it describes the specific varied coastal scenery that is located along the coast.

The sensitivity of this SLQ is assessed as High. This has been derived from the high value of the NSA designation and the high susceptibility of this SLQ to change given the contrasting coastal scenery.

The physical characteristics associated with the vertical cliffs including the sandstone composition would be unaffected by the offshore Project. There would be No View of the offshore Project from Scapa Flow.

The Old Man of Hoy is a key landmark visible from the Scrabster to Stromness ferry. The ferry route passes the Old Man of Hoy at a distance of 1.5 km where the Old Man would be visible in close proximity to the east. The offshore Project would be visible around 24 km to the west of the ferry route appearing as a distant feature on the vast sea horizon and would therefore not intervene with the views of the Old Man of Hoy and the cliffs from the sea which would remain an "*iconic image of the Orkney Islands, especially for those arriving by sea across the Pentland Firth*."

The magnitude of change of the offshore Project affecting the overall 'spectacular coastal scenery'' would be Low and the level of landscape effect on this SLQ would be Moderate and not significant in EIA terms**.** The nature of this effect would be indirect, long term (reversible) and adverse.

SLQ 2: · A landscape of contrasting curves and lines.

The SNH Commissioned Report No.374, 2010 further describes this special quality as follows:

"*The combination of curves and lines is a defining feature of this landscape. The pattern of the landform is smooth, with gentle curves, but the land itself often ends spectacularly in vertical cliffs and a horizontal horizon of sea. Rocks on the seashore and in the buildings and dykes tend to be flat and linear, and the field boundaries take straight lines across the curving landscape.*

There are no trees to soften the regular outlines of the farm buildings that stand proud on the undulating pasture, and the ancient monuments can be a combination of the linear and the circular: upstanding stones within a circular surround."

The relevant component of this SLQ is the 'pattern of the land that ends spectacularly in vertical cliffs and a horizontal horizon of sea'.

The sensitivity of this SLQ is assessed as High. This has been derived from the high value of the NSA designation and the high susceptibility of this SLQ to change.

The offshore Project would appear as a distant feature on the horizontal horizon of the vast sea plane at a minimum distance of 27 km from the west coast. Whilst there would be significant visual effect from a small number of locations on Hoy in relation to it being a new feature in the view, the offshore Project would have a limited scale of effects on the 'horizontal horizon of sea' given the open and expansive scale of the seascape where it would only be visible in one part of this seascape (no more than 26 degrees of the HFoV from the closest row of WTGs set within a greater than 180 degree seascape) in very clear conditions, and therefore the combination of curves and lines would remain a defining feature of this landscape.

The magnitude of change of the offshore Project affecting this SLQ would be Low and the level of landscape effect on this SLQ would be Moderate and not significant. The nature of this effect would be indirect, long term (reversible) and adverse.

SLQ 3: The high hills of Hoy.

The SNH Commissioned Report No.374, 2010 further describes this special quality as follows:

"The high, rounded hills of Hoy form a spectacular backdrop to much of West Mainland. With their corries, deep U-shaped valleys and patterned ground, these rugged, moorland hills reflect their glacial history.

Within a sheltered gully in these hills lies the small Berriedale birchwood, the most northerly native wood in Britain."

The relevant component of this SLQ is the 'high, rounded hills of Hoy forming a spectacular backdrop in views from the West Mainland'.

The sensitivity of this SLQ is assessed as High. This has been derived from the high value of the NSA designation and the high susceptibility of this SLQ to change.

There would be no view of the offshore Project from the small Berriedale birchwood.

Views of the offshore Project from West Mainland would be west where it would appear as a new and distant feature across the vast sea horizon to the west at a minimum distance of 27 km with the high hills of Hoy located to the south, away from the offshore Project, which would continue to form the 'spectacular backdrop to much of West Mainland' as illustrated in Viewpoint 22. Therefore, the offshore Project would not intervene in views from West Mainland towards the high hills of Hoy.

The magnitude of change of the offshore Project affecting this SLQ would be Low-negligible and the level of landscape effect on this SLQ would be Minor and not significant in EIA terms. The nature of this effect would be indirect, long term (reversible) and adverse.

Stage 4: Statement of Significance

The offshore Project is not located within the Hoy and West Mainland NSA, being 26.8 km from the nearest point of theoretical visibility within the NSA. In assessing the indirect effects of the offshore Project on the perceptual SLQs of the NSA the assessment has concluded that there would be no significant effects on any of the SLQs defined by NatureScot.

A summary of the SLQ assessment for the NSA is set out in Table 18-34.

Table 18-33 SLQ Assessment for the Hoy and West Mainland NSA

SPECIAL LANDSCAPE QUALITY	SENSITIVITY	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
A palimpsest of geology, topography, archaeology and land use.	Not assessed – physical characteristic that could not be affected by the offshore Project which is well beyond the NSA boundary.		

SPECIAL LANDSCAPE QUALITY	SENSITIVITY	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
An archaeological landscape of World Heritage Status.	Not assessed – there would be no view of the offshore Project from any of the listed Neolithic monuments of central Orkney.		
The spectacular coastal scenery.	High	Low	Moderate (not significant)
Sandstone and flagstone as an essence of Orkney.	Not assessed – physical characteristic that could not be affected by the offshore Project which is well beyond the NSA boundary.		
A long-settled and productive land and sea.	Not assessed – physical characteristic that could not be affected by the offshore Project. The working landscape would not be affected by the offshore Project.		
The contrast between the fertile farmland and the unimproved moorland.	Not assessed – physical characteristic that could not be affected by the offshore Project which is well beyond the NSA boundary.		
A landscape of contrasting curves and lines.	High	Low	Moderate (not significant)
Land and water in constantly changing combinations under the open sky.	Not assessed – changing skies, combination of water, land, sea and sky, and weather patterns would not be affected by the offshore Project.		
The high hills of Hoy.	High	Low-negligible	Minor
The townscape of Stromness, its setting and its link with the sea.	Not assessed – no view of the offshore Project from the core settlement of Stromness.		
The traditional buildings and crofting patterns of Rackwick.	Not assessed – physical characteristic that could not be affected by the offshore Project which is well beyond the NSA boundary. The small settlement of Rackwick (which comprises the traditional buildings and crofting patterns) is outwith the ZTV. Views from Rackwick Bay are assessed as part of the visual assessment.		

18.6.2.7 Effects on designated heritage assets

The offshore Project is not located within any designated heritage assets / sites. Therefore, there can be no physical or direct impact on these designations within the study area, which include WHSs and GDLs. It has been identified

that the Heart of Neolithic Orkney WHS does not fall within the ZTV and has therefore been excluded from the assessment (see section 18.4.6.4).

Both value and susceptibility to change of the designated heritage assets is considered high, resulting in a High sensitivity to change.

As set out in section 18.4.6.4, the indirect effects on two GDLs are included in the assessment as follows:

18.6.2.7.1 The Castle of Mey GDL

The Castle of Mey GDL is located at a long distance of 47.8 km from the OAA. The Inventory does not provide any records of designed views or vistas from the castle, it is considered to have outstanding Scenic value in the surrounding landscape.

The Castle of Mey commands a magnificent position some 400 m from the shore of the Pentland Firth. The designed landscape includes some 40.5 ha of parkland, 4.7 ha of woodland, and formal garden which includes walled gardens.

The Castle and its woodlands are significant from the A836 and other minor roads between it and the coast, particularly from the east. The flat nature of the surrounding landscape limits views of the policies which are enclosed within the woodlands to the south and the policy walls to the north[52].

The offshore Project would not intervene in views of the Castle of Mey and would not appear in combined visibility with this GDL and therefore the magnitude of effects is considered negligible.

The view next to the castle and its grounds is represented by Viewpoint 14 (Figure 18.VP14a-d Viewpoint 14 Castle of Mey LB & GDL) (SS20: SLVIA Visualisations).

Sensitivity	Magnitude of Change	Level of Effect
High	Negligible	Minor / negligible
Significance of Effect - NOT SIGNIFICANT		

18.6.2.7.2 Tongue House GDL

Tongue House GDL is situated on the eastern shore of the Kyle of Tongue. The designed landscape is bounded on the east by the A836 and to the west by high walls which separate the policies from the shore. It is set at the base of the steep western slope of Ben Tongue. The walls and woodland of the Tongue House are of high Scenic value within

[52] *http://portal.historicenvironment.scot/designation/GDL00096.*

the surrounding landscape. Coniferous woodlands lie beyond the parkland enclosure to the north and down the eastern side of the A836.

Magnificent views north and west across Tongue Bay can be gained from high points in the garden. From the end of the south avenue, views can be gained beyond the village to Castle Bharraich, with Ben Loyal and Ben Hope in the distance. Otherwise the designed landscape is relatively introspective and sheltered[53].

It is expected that the perceivable views of the offshore Project would be equivalent to that presented by Viewpoint 17 Kyle of Tongue - A838 causeway (Figure 18.VP17). The majority of the offshore Project would be obscured by intervening landform with visibility being limited to blades and blade tips above Ard Skinid and the Rabbit Islands. It is expected that at the distance of 38 km (see Viewpoint 17 in SS19 SLVIA Figures) it would be difficult to detect any blade motion.

Sensitivity	Magnitude of Change	Level of Effect
High	Low-negligible	Minor
Significance of Effect – NOT SIGNIFICANT		

18.6.3 Potential visual effects during operation and maintenance

18.6.3.1 Effects on views and visual amenity – Sutherland and Caithness

18.6.3.1.1 Settlements

The visual effects likely to be experienced from settlements include consideration of residential areas, the public realm and public open spaces within the settlement boundaries that would be frequented by people. The sensitivity of each of these receptors (people) at settlements has been assessed as High. As described in section 18.4.6.5, Core Paths (and visitor destinations) are also included as part of the settlement assessment, where relevant.

Table 18-34 identifies the visual effects of the offshore Project on settlements on the coast of Sutherland and Caithness.

[53] *http://portal.historicenvironment.scot/designation/GDL00375.*

Table 18-34 Visual effects assessment on settlements on the coast of Sutherland and Caithness (significant effects are highlighted and indicated in bold)

SETTLEMENT	DISTANCE / DIRECTION TO OAA	DESCRIPTION OF MAGNITUDE OF CHANGE	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
Sutherland settlements				
Durness (includes Core Paths around settlement and Sango Bay and Campsite)	28 km NE	The properties alongside the A838 are approximately 600 m from the coastal edge. Due to the elevated location of the settlement, campsite and Core Paths on an open coastal edge the offshore Project (south of Viewpoint 1) would become noticeable as a new, however distant element on the sea. Views from Sango Bay would also be similar where the offshore Project would be visible on the sea horizon.	Medium	**Major / moderate (significant)**
Midfield to Midtown (including Talmine), Kyle of Tongue (includes Core Paths around settlement and Talmine Bay and campsite)	26 km N	Views of the offshore Project would be gained from a number of properties and Core Paths which are located further south from Viewpoint 4. In some views only the eastern part of the OAA would appear due to intervening landform which obscures views. In views from Talmine (including its Bay and campsite) and Skinnet the offshore Project would appear on the sea horizon above the intervening small islands at the mouth of the Kyle of Tongue.	High-medium	**Major / moderate (significant)**
Tongue (includes Core Path south of settlement)	34 km N	Views of the offshore Project from Tongue House (east of Viewpoint 17) are expected to be screened by surrounding mature vegetation. However, there would be views of the WTGs from Tongue Lodge and Hostel over 35 km, some of the blades appearing above the Ard Skinid landform. Visibility from much of the linear settlement and Core Path to south is largely limited due to intervening landform and / or vegetation.	Low	Moderate
Skullomie and Coldbackie, Kyle of Tongue (includes Core Paths around settlement)	30 km N	The southern array of the offshore Project would be clearly visible on the sea horizon above the intervening small islands. The properties are located against the landform and therefore their only orientation is north, towards the sea.	High-medium	**Major / moderate (significant)**

SETTLEMENT	DISTANCE / DIRECTION TO OAA	DESCRIPTION OF MAGNITUDE OF CHANGE	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
Skerray (includes Core Paths around settlement)	27 km N	Much of the offshore Project would be screened by coastal landforms from scattered properties and Core Paths at Skerray.	Low	Moderate / minor
Bettyhill (includes Core Paths in vicinity of settlement and campsite)	29 km N	Much of the settlement (east of Viewpoint 5) is surrounded by landform with limited views out to sea, however, there are some elevated properties and Core Paths in the north with open views north to the sea where the WTGs would be visible on the distant sea horizon. Visible presence of Bettyhill WTGs in the area. Views from the campsite would be limited due to intervening landform and buildings.	Medium (elevated properties and Core Paths in north of settlement)	Major / moderate (significant) (elevated properties and Core Paths in north of settlement)
Kirtomy (includes Core Path to east of settlement)	27 km N	The offshore Project would appear in elevated views across Kirtomy Bay which extends in between Farr Point and Kirtomy Point. However, the WTGs would not fill the horizon of the bay.	Medium	Major / moderate (significant)
Armadale (includes Core Path to west of settlement)	27 km NW	Much of this linear settlement is orientated towards Armadale Bay to the east with the northern few properties and Core Path with open views where the offshore Project would be partially visible at oblique angles across the bay on the sea horizon.	Medium-low	Moderate (significant)
Lednagullin	28 km NW	There would be views of the offshore Project from much of this scattered settlement with the landform of Strathy Point to the east, leaving the horizon to the west open where the WTGs would be visible on the sea horizon.	Medium-low	Moderate (significant)
Strathy (includes Core Path north of settlement)	29 km NW	Half of the settlement is outwith the ZTV due to the landform of Strathy Point (Viewpoint 6). Views from the road to Strathy Point and properties alongside the road would be screened by the intervening landform. The offshore Project would appear occasionally in elevated views from a small number of properties along the road and the core settlement and Core Path where views are mainly orientated north-east towards Strathy Bay.	Low	Moderate / minor

SETTLEMENT	DISTANCE / DIRECTION TO OAA	DESCRIPTION OF MAGNITUDE OF CHANGE	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
Portskerra, Melvich (includes Core Paths around settlement and campsite)	29 km NW	Most properties in these settlements are orientated north-east and east towards Melvich Beach (Viewpoint 7), away from the offshore Project. However, there are a number of properties at the northern end of Portskerra and along the road in Melvich (including campsite) and Core Paths where the south-eastern array of the offshore Project would appear in views of the bay to the north-west.	Medium	Major / moderate (significant)
Caithness settlements				
Reay (includes Core Paths around settlement and golf course and Sandside Bay)	34 km NW	Properties to the north of the A838 which have their rear gardens and elevations facing north (and northern Core Paths, golf course and Sandside Bay (Viewpoint 9) would have potentially distant and partially filtered visibility of the south-eastern array of the offshore Project. Visible presence of Forss and Baillie WTGs in the area.	Medium-low	Moderate
Buldoo	34 km NW	These are mainly scattered farm properties (near Viewpoint 19) which would potentially see the offshore Project within a vast sea plane in distant views where the Dounreay NPDE would appear in the foreground of these views. Baillie WTGs appear in close views to the south.	Low-negligible	Minor
Crosskirk (includes Core Paths west of settlement)	34 km NW	From the scattered properties and a Core Path (near Viewpoint 10), the offshore Project would appear in the distance on the sea horizon in a combined view with Forss WTGs and North Point Distillery.	Medium-low	Moderate (significant due to the existing cumulative context)
Murkle	42 km NW	Views to the northwest towards the offshore Project from this scattered settlement (west of Viewpoint 18) would be contained by the intervening shallow landform of Clardon Hill. The WTGs on the eastern end of the south-east array would barely be perceptible at over 42 km distance.	Low-Negligible	Minor / negligible

Views of the offshore Project from the remaining settlements of Dunnet, Brough, Castletown, Scafskerry, Rattar, East May, Huna and John O'Groats would be barely perceptible at over 44 km, and the magnitude would be no greater than negligible resulting in a Negligible and not significant level of effect.

In summary, significant visual effects would be limited to parts of the small settlements of Durness (including core paths, Sango Bay and campsite), Midfield to Midtown (including core paths and Talmine campsite), Skullomie and Coldbackie (including core paths), Bettyhill (including core paths), Kirtomy (including core paths), Armadale (including core paths), Lednagullin, Portskerra, Melvich (including core paths) and Crosskirk (including core paths). None of the remaining settlements in Sutherland and Caithness would be significantly affected by the offshore Project. The nature of these effects would be direct, cumulative, long-term (reversible) and adverse. There would be no significant visual effects from the remaining settlements within the study area.

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in 18.11.

18.6.3.1.2 Transport routes

As described in section 18.4.6.5.1, only the A836 and A838 are included in the assessment. Both routes overlap with the North Coast 500 recreational route. The majority of the other transport routes A9, A99, B876, A897 and B870 in the study area extend south-north through straths which are largely outwith the ZTV.

The A836 is assessed sequentially in this section, as requested by THC, whilst the A838 is assessed part of the North Coast 500 in Table 18-34.

A836

The A836 is a 196 km long route connecting Dornoch at its southernmost extent to John o'Groats at its most northerly extent via Lairg, Altnahara and Tongue. The route has been assessed from Tongue in the west to John o' Groats in the east. This section of the route overlaps with part of the North Coast 500 and Sustrans Cycle Route 1 recreational routes. The route is described as a 'Key' route in the OWESG as it travels along the northern coastline of Sutherland and Caithness and through the Kyle of Tongue NSA. The value of the route is therefore assessed as High. The susceptibility to change from the introduction of the offshore Project is considered to be High-Medium and the overall sensitivity of this route is, therefore, assessed as High.

In terms of road users, these will vary greatly from people 'at work' or commuting, to local people and tourists who may be driving to a destination or who may be driving to enjoy the view. Road users are also travelling at speed and experience the landscape as a sequence of views, usually looking in one direction depending on their location in the vehicle. The drivers will be focused on the activity of driving and are likely to be less sensitive than the passengers. Both groups would be less sensitive than non-motorised receptors including residents and walkers.

The A836 is assessed sequentially from west to east in Table 18-34, and east to west in Table 18-36 and is illustrated in Figure 18.21a-g A836 Sequential Route Assessment (SS19: SLVIA Figures). This section of the route is approximately 99.7 km in length, of which 55 km of the route would have theoretical visibility of the offshore Project as illustrated in Figure 18.21a.

Table 18-35 A836 sequential route assessment eastbound from Tongue to John o' Groats

SECTION / FIGURE	BEARINGS (DEGREES)		VIEW TOWARDS THE OFFSHORE PROJECT	MAGNITUDE OF CHANGE
	TRAVEL DIRECTION	OFFSHORE PROJECT		
Tongue to Coldbackie north-west facing slope of Ben Tongue **Figure 18.21b: Viewpoint 1**	18	18	The offshore Project would appear in a direct elevated view from a 1.2 km section at a distance of 31 km.	High-medium
Tongue to Coldbackie north facing slope of Cnoc an Fhreiceadain	80	18	The offshore Project would appear in an oblique view within a 500 m section at a distance of 31 km.	High-medium
Coldbackie to Strathtongue within Alltan na Creige Valley	130	14	2 km stretch of the road is outwith the ZTV.	N/A
Crossing moorland in between Strathtongue and Borgie Forest **Figure 18.21b: Viewpoint 2**	80 (varies)	14	Sporadic ZTV pattern. There would be intermittent visibility of the WTGs at a distance of 32 km in transient oblique views when crossing over the moorland within a 2.8 km section of the route. The road extends for approximately 5 km from the coastal edge. Intervening topography restricts views of the sea.	Varies from Low to Negligible
Borgie Forest and River Borgie Valley	90	11	2 km stretch of the road is outwith the ZTV.	N/A
From River Borgie Valley to River Naver valley	110	8	Very sporadic ZTV pattern across the moorland. There is more roadside vegetation which would limit views of the offshore Project when crossing this 4 km section of the moorland at a distance of 33 km. Also, the road extends for approximately 5 km from	Varies from Low to Negligible

SECTION / FIGURE	BEARINGS (DEGREES)		VIEW TOWARDS THE OFFSHORE PROJECT	MAGNITUDE OF CHANGE
	TRAVEL DIRECTION	OFFSHORE PROJECT		
			the coastal edge. Intervening topography restricts views of the sea.	
Through River Naver Valley to the approach to Bettyhill	6	6	4.6 km stretch of the road is broadly outwith the ZTV.	N/A
Bettyhill to Armadale Bay **Figures 18.21c, d: Viewpoints 3, 4 and 5**	60 (varies)	356-6	15.4 km section with sporadic ZTV pattern. Views from the road are screened as it passes through the middle of Bettyhill (see separate assessment of the settlement in Table 18-33). When crossing the moorland, topography contains roadside views. The road is approximately 1.8 km to 3.7 km from the coastal edge.	Varies from Medium-Low to Negligible
Armadale Bay to Lednagullin **Figures 18.21d, e: Viewpoints 6 and 7**	80 and 20	353	There are a number of roadside facilities (picnic area, lay-by and post box) along this section of the route. Views of the offshore Project from the Armadale picnic area and lay-by are at a distance of 28 km.	Medium-Low
Lednagullin to Strathy **Figure 18.21e: Viewpoint 8**	60	350	Views within this 3.2 km elevated moorland crossing between Armadale Burn and Strathy valley are generally contained by undulations in the topography. Occasional views of the sea occur, when the offshore Project would be seen at a distance of 27.5 km. The road is approximately 3 to 4.5 km from the coastal edge.	Varies from Medium-Low to Low-negligible
Strathy Valley / mouth crossing **Figure 18.21f: Viewpoint 9**	140	358	Strathy Point landform screens potential views of the offshore Project. Moving south-eastwards down to the valley it would be difficult to notice the WTGs which are perpendicular to the direction of travel within a short section. The	Low

SECTION / FIGURE	BEARINGS (DEGREES)		VIEW TOWARDS THE OFFSHORE PROJECT	MAGNITUDE OF CHANGE
	TRAVEL DIRECTION	OFFSHORE PROJECT		
			Strath valley floor and its eastern side are outwith the ZTV.	
Strathy to Melvich **Figure 18.21f: Viewpoint 10**	86	345	The road is approximately 1 km to 1.5 km from the coastal edge. This is an elevated 3.6 km long moorland crossing. The inland views are restricted by the rising landform and therefore the eye moves northwards towards the sea. The signposted Viewpoint / car park allows an elevated view of the offshore Project at a distance of 28.5 km.	Medium-low
Halladale River valley crossing to the south of Melvich **Figure 18.21g: Viewpoint 11**	120	340	The road extends along the western side of the Halladale River valley in a south-east direction. Rubhan an Tuir headland forms a strong focus in the view above Melvich Bay before the road turns into the valley. In order to see the offshore Project one would have to stop in order to gain a view in the opposite direction. The bottom of the valley is outwith the ZTV and views from the eastern side of the valley are restricted by the intervening topographic undulations.	Varies from Medium-Low to Negligible
Melvich to Reay **Figure 18.21g: Viewpoint 12**	80	337	Although just 1.3 km from the coastal edge, this 6 km long stretch of the route crossing Drumhollistan Moss is mainly outwith the ZTV due to the screening provided by the topography of the coastal edge. Views towards the inland are restricted by rising landforms. Views of the offshore Project are available within a 1.3 km section, which includes the Mackay Country landmark carpark. In the eastbound travelling direction, the offshore Project remains behind the viewer. Existing WTGs of Forss and Baillie and	Varies from Low to Negligible

SECTION / FIGURE	BEARINGS (DEGREES)		VIEW TOWARDS THE OFFSHORE PROJECT	MAGNITUDE OF CHANGE
	TRAVEL DIRECTION	OFFSHORE PROJECT		
			Limeklin are visible in views when travelling eastwards.	
Reay to Forss **LVIA Viewpoints 9 and 19 (Figures 18.VP9 and 18.VP19)**	20	327	The offshore Project would appear in oblique views across Sandside Bay at Reay. To the east of the settlement, the road takes a sharp northeast turn. This 6 km long section extends just 1 km from the coastal edge, which accommodates Dounreay NPDE, with pylons and the Forss WTGs provide the distant focus. The open sea horizon comprises approximately 140 degrees within which the offshore Project would appear in oblique views to the north-west at a distance of up to 35.7 km. Existing WTGs of Forss and Baillie and Limeklin are visible in views when travelling eastwards.	Varies from Medium-low to Low
Forss to Thurso	70	319	The route falls within the ZTV on the north-west facing slope of Scrabster Hill, which screens views inland. As the road ascends along the slope the offshore Project remains behind the traveller and the landform of Hoy forms a side focus.	Varies from Low to Negligible
Thurso to Castletown **LVIA Viewpoint 18 (Figure 18.VP18)**	90	311	Two slightly elevated sections on the north facing slopes of Duncan's Hill and Hill of Clindrag, facing northwards to Dunnet Bay, would have visibility of the offshore Project at a distance of 44 km. When heading to the east the offshore Project remains behind the traveller. Dunnet Head forms the focus in these views.	Low-negligible
Castletown to John o' Groats	70	300	Due to the coastal topography of headlands, part of the route is outwith the ZTV. Views within the ZTV are focused towards the distant	Negligible

SECTION / FIGURE	BEARINGS (DEGREES)		VIEW TOWARDS THE OFFSHORE PROJECT	MAGNITUDE OF CHANGE
	TRAVEL DIRECTION	OFFSHORE PROJECT		
			landmass of Hoy, across the Pentland Firth. When heading to the east the offshore Project remains behind the traveller. The offshore Project occurs at a distance of beyond 47 km, close to the Dunnet Head landform, when discernible.	

Table 18-36 A836 sequential route assessment westbound from John o' Groats to Tongue

SECTION / FIGURE	BEARINGS (DEGREES)		VIEW TOWARDS THE OFFSHORE PROJECT	MAGNITUDE OF CHANGE
	TRAVEL DIRECTION	OFFSHORE PROJECT		
John o' Groats to Castletown	260	300	Due to the coastal topography of headlands, part of the route is outwith the ZTV. Views within the ZTV are focused towards the distant landmass of Hoy, across the Pentland Firth. The offshore Project occurs at a distance of beyond 47 km, close to the Dunnet Head landform, when discernible.	Negligible
Castletown to Thurso LVIA Viewpoint 18 (Figure 18.VP18)	270	311	Two slightly elevated sections on the north facing slopes of Duncan's Hill and Hill of Clindrag, facing northwards to Dunnet Bay, would have visibility of the offshore Project at a distance of 44 km. The offshore Project would be barely perceptible as only part of it would appear next to Holborn Head.	Low-negligible
Thurso to Forss	250	319	As the route descends westwards, alongside the north-west facing slope of Scrabster Hill, the offshore Project appears within the 140-degree wide sea horizon in a side view at a distance of 35 km. The Forss WTGs are in direct view alongside those of Baillie windfarm.	Varies from Low to Negligible

SECTION / FIGURE	BEARINGS (DEGREES)		VIEW TOWARDS THE OFFSHORE PROJECT	MAGNITUDE OF CHANGE
	TRAVEL DIRECTION	OFFSHORE PROJECT		
Forss to Reay **LVIA Viewpoints 9 and 19 (Figures 18.VP9 and 18.VP19)**	220	327	From Forss to Reay the views have a south-west orientation with distant hills forming an elevated horizon. The Baillie and Limeklin WTGs appear in side views inland. The offshore Project would occur in side views to the north-west at a distance of 35 km. It would be more difficult to notice the offshore WTGs, which would appear perpendicular to the direction of travel.	Varies from Medium-low to Low
Reay to Melvich **Figure 18.21g: Viewpoint 12**	270	337	This 6 km long stretch of the route crossing Drumhollistan Moss is outwith the ZTV due to the screening provided by the topography of the coastal edge. Views inland are restricted by rising landform. Views of the offshore Project are available within a 1.3 km section, which includes the Mackay Country landmark carpark. The offshore Project would be seen in side-views at a distance of 33 km when travelling westbound.	Varies from Low to Negligible
Halladale River valley crossing to the south of Melvich **Figure 18.21g: Viewpoint 11**	340	340	Although the offshore Project is in direct view on the western side of the valley, this view is filtered by roadside vegetation, the landform, and buildings.	Varies from Low to Negligible
Melvich to Strathy **Figure 18.21f: Viewpoint 10**	260	345	The road is approximately 1 km to 1.5 km from the coastal edge. This is an elevated 3.6 km long moorland crossing. The inland views are restricted by the rising landform and therefore the eye moves northwards towards the sea. The signposted Viewpoint /car park allows an elevated view of the offshore Project at a distance of 28.5 km.	Medium-low
Strathy Valley / mouth crossing **Figure 18.21f: Viewpoint 9**	320	358	The valley floor and its eastern side are outwith the ZTV. Strathy Point landform screens most of the offshore Project. Turbines next to the Strathy Point would be seen across Strathy Bay within a short section when moving north-westwards, ascending the western side of the valley.	Low

SECTION / FIGURE	BEARINGS (DEGREES)		VIEW TOWARDS THE OFFSHORE PROJECT	MAGNITUDE OF CHANGE
	TRAVEL DIRECTION	OFFSHORE PROJECT		
Strathy to Lednagullin **Figure 18.21e: Viewpoint 8**	260	350	Views within this 3.2 km elevated moorland crossing between Armadale Burn and Strathy valley are generally contained by undulations in the topography. Occasional views of the sea occur, when the offshore Project would be seen at a distance of 27.5 km.	Varies from Medium-Low to Low-negligible
Lednagullin to Armadale Bay **Figures 18.21d, e: Viewpoints 6 and 7**	200 and 260	353	There are a number of roadside facilities (picnic area, lay-by and post box) along this section of the route. Heading downhill in a south-west direction, the offshore Project, in an oblique view, remains behind the viewer. Views of the offshore Project from the Armadale picnic area and lay-by are at a distance of 28 km.	Medium-Low
Armadale Bay to Bettyhill **Figures 18.21c, d: Viewpoints 3, 4 and 5**	240 (varies)	356	15.4 km section with sporadic ZTV pattern. Views from the road are screened as it passes through the middle of Bettyhill (see separate assessment of the settlement in Table 18-33). When crossing the moorland, topography contains roadside views. The road is approximately 1.8 to 3.7 km from the coastal edge.	Varies from Medium-Low to Negligible
Through River Naver Valley to the approach to Bettyhill	180	180	4.6 km stretch of the road is broadly outwith the ZTV.	N/A
From River Naver valley to River Borgie Valley	280	8	Very sporadic ZTV pattern across the moorland. There is more roadside vegetation which would limit views of the offshore Project when crossing this 4 km section of the moorland at a distance of 33 km. Also, the road extends for approximately 5 km from the coastal edge. Intervening topography restricts views of the sea.	Varies from Low to Negligible
Borgie Forest and River Borgie Valley	270	11	2 km stretch of the road is outwith the ZTV.	N/A

SECTION / FIGURE	BEARINGS (DEGREES)		VIEW TOWARDS THE OFFSHORE PROJECT	MAGNITUDE OF CHANGE
	TRAVEL DIRECTION	OFFSHORE PROJECT		
Crossing moorland in between Borgie Forest and Strathtongue **Figure 18.21b: Viewpoint 2**	280 (varies)	14	Sporadic ZTV pattern. There would be intermittent visibility of the WTGs at a distance of 32 km in transient oblique views when crossing over the moorland within a 2.8 km section of the route. The road extends for approximately 5 km from the coastal edge. Intervening topography restricts views of the sea.	Varies from Low to Negligible
Strathtongue to Coldbackie within Alltan na Creige Valley	300	14	2 km stretch of the road is outwith the ZTV.	N/A
Coldbackie to Tongue north facing slope of Cnoc an Fhreiceadain	220	18	The offshore Project would appear in an oblique view within a 500 m section at a distance of 31 km.	High-medium
Coldbackie to Tongue north-west facing slope of Ben Tongue **Figure 18.21b: Viewpoint 1**	270	18	The offshore Project would be behind the direction of travel.	Negligible

In summary, the experience of significant visual effects would be limited to a total of approximately 7.7 km. These effects would occur for eastbound users for approximately 1.7 km between Tongue and Coldbackie around the lower slopes of Ben Tongue and Cnoc an Fhreiceadain, and approximately 6 km intermittently between west of Armadale Bay and Melvich. Westbound users would experience significant effects (5.5 km) for approximately 5 km intermittently between Melvich and west of Armadale Bay, and for approximately 0.5 km between Coldbackie to Tongue along the lower slopes of Cnoc an Fhreiceadain. The significant visual effects would equate to 4% of the entire 196 km route and would occur intermittently over a period of approximately 5-10 minutes, whilst travelling at 40-50 mph, in any one direction. The magnitude of change for these sections of the route would range between High-medium and Medium-low and the level of visual effect would be Major / moderate and significant in EIA terms. The nature of these effects would be long term (reversible), indirect, cumulative and adverse. Elsewhere along the A836, effects would be not significant.

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in 18.11.

18.6.3.1.3 Recreational routes

All of the routes have been assessed as of High sensitivity on account of their High to Medium value as recreational routes, some routed through designated landscapes and the High susceptibility of the people using these routes, mostly walkers and cyclists, whose attention would be focused on the landscape around them. It is noted however that these routes would also be used by road users of a lower sensitivity who may be commuting or working.

Each of these routes were visited and walked / driven in sections according to the ZTV coverage and the assessment has been assisted on-site with the use of sequential wirelines.

Table 18-37 identifies the visual effects of the offshore Project on recreational routes on the coast of Sutherland and Caithness.

Table 18-37 Recreational routes on the coast of Sutherland and Caithness

ROUTE	DISTANCE / DIRECTION TO OAA	DESCRIPTION OF MAGNITUDE OF CHANGE	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
The North Coast 500 (overlapped with A838 and A836)	27 km N	The route (the NC500) is orientated in a west-east direction, extending relatively close to the coastal edge off the north coast where most views of the offshore Project (to the north-west or north-east and to the north), where visible, would be oblique to the direction of travel. The route overlaps with the A838 and A836 within the study area. A detailed assessment of the A836 is reported in Table 18-35 and Table 18-36. In terms of road users, these will vary greatly from people 'at work' or commuting, to local people and tourists who may be driving to a destination or who may be driving to enjoy the view. Road users are also travelling at speed and experience the landscape as a sequence of views, usually looking in one direction depending on their location in the vehicle. The drivers will be focused on the activity of driving and are likely to be less sensitive than the passengers. Both groups would be less sensitive than non-motorised receptors including residents and walkers. Sutherland - From Durness to Loch Eriboll the route (the A838) is in almost immediate proximity to the elevated coastal cliff. Despite its closeness to the coastal edge, much of the views of the sea from this section of the route are screened, however there are some open views along this 5 km stretch of route where the offshore Project would be visible on the sea horizon (Medium magnitude). As the route travels around Loch Eriboll, visibility is mostly limited due to intervening landform. The route crossing of the A'Mhoine peninsula is represented by Viewpoint 3, resulting in Low-negligible magnitude of change. More than half of the route crossing the peninsula is outwith the ZTV.	High-medium to Negligible	Major / moderate (significant) to negligible Significant visual effects would be limited to tourists / residents rather than people commuting or working: Short open sections from a 5 km section of route between Durness and Loch Eriboll (A838 / NC 500); 1.7 km from lower slopes of Ben Tongue and Cnoc an Fhreiceadain between Tongue and Coldbackie (A836 / NC 500); and Short open sections for 6 km between Armadale Bay and Melvich (A836 / NC 500).

ROUTE	DISTANCE / DIRECTION TO OAA	DESCRIPTION OF MAGNITUDE OF CHANGE	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
		Crossing the Kyle of Tongue is represented by Viewpoint 17 resulting in Low-negligible magnitude of change. As the route passes through the settlement of Tongue, visibility is also limited due to intervening landform and / or vegetation (Low magnitude). As the route climbs after passing Tongue (A838 to A836), there would be elevated views of the offshore Project for approximately 1.7 km from the lower slopes of Ben Tongue and Cnoc an Fhreiceadain across Tongue Bay up to Coldbackie resulting in a High-medium magnitude of change. However, there are no promoted laybys along this section of the route. From the east of Ben Tongue and Cnoc an Fhreiceadain at Coldbackie up to the River Naver for approximately 5 km, there would be intermittent but limited visibility of the offshore Project due to intervening landform restricting views towards the sea. Views would be oblique when crossing the moorland with a combination of landform and vegetation restricting views towards the sea. Visibility from the route as it passes through the middle of Bettyhill would also be restricted due to intervening buildings. Between Bettyhill and west of Armadale Bay, views of the sea are again largely screened due to intervening landform until the bay is reached where the offshore Project would be visible at 28 km distance (Medium-low magnitude). Caithness - With the crossing from Rocky Hills and Moorland to Sweeping Moorland and Flows to the east of Armadale Bay, the expansive sea views are to both sides of Strathy Point and the offshore Project would be visible at 28 km distance. Visibility would be limited to intermittent sections of the route along 6 km between Armadale Bay and Melvich (Medium-low magnitude), however, there would be less or no visibility as the route travels around Strathy Further to the east coastal onshore windfarms such as Forss and Baillie WTGs appear in views from the road. However, the offshore Project would be visible simultaneously with the Forss WTGs close to Crosskirk. Beyond Melvich, the route passes Sandside Bay and Reay extending across a Farmed Lowland Plain. The coastline here reduces in height, allowing for clear and uninterrupted views of the sea (Medium-low to low magnitude). However, after this point until Thurso and John O'Groats, the offshore Project would appear more distant at a minimum distance of 35 km and would become less perceptible.		

ROUTE	DISTANCE / DIRECTION TO OAA	DESCRIPTION OF MAGNITUDE OF CHANGE	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
Sustrans National Cycle Route 1: Inverness to John O' Groats	29 km N	As the route overlaps with The North Coast 500 from Tongue to John O'Groats, the assessment will remain the same as above. In summary, there would be significant visual effects on cyclists from the following short sections of the route: 1.7 km from lower slopes of Ben Tongue and Cnoc an Fhreiceadain between Tongue and Coldbackie (A836 / NC 500) ; and Short open sections for 6 km between Armadale Bay and Melvich (A836 / NC 500).	High-medium to Negligible	**Major / moderate (significant)** to negligible

In summary, significant visual effects would be experienced from short sections of the North Coast 500 Route (overlapped with the Sustrans National Cycle Route 1 / A838 / A836). The nature of these effects would be direct, cumulative, long-term (reversible) and adverse. The remaining recreational routes on Sutherland and Caithness would not be significantly affected by the offshore Project.

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in 18.11.

18.6.3.1.4 Ferry routes

Table 18-37 identifies the visual effects of the offshore Project on ferry routes.

In summary, significant visual effects would be experienced from short sections of the Scrabster to Stromness ferry route. The nature of these effects would be direct, cumulative, long-term (reversible) and adverse.

Table 18-38 Ferry routes between Scottish Mainland and Orkney

ROUTE	DISTANCE / DIRECTION TO OAA	DESCRIPTION OF MAGNITUDE OF CHANGE	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
Ferry route between Scrabster and Stromness	24.4 km W/ NW	Represented by Viewpoint 20, the route comes closest to the offshore Project at 24.4 km distance from its south-east corner. When approaching the Hoy Sound and passing the Old Man of Hoy at 1.5 km, the ferry would be 26.4 km from the eastern side of the offshore Project. The main visual attraction of the route is the impressive cliff profile of Hoy, in views of which the offshore Project would not intervene. It should be also considered that the HFoV occupied by the closest visible WTGs up to 35 km is 28 degrees. The WTGs in the background gradually become less visible. On approaching Scrabster the Foss group WTGs are seen on the backdrop of the coastal landform, and several Limeklin WTGs would be distinguishable above the shallow coastal landform.	Medium to Negligible	Major / moderate (significant) to Negligible

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in 18.11.

18.6.3.1.5 Visitor destinations

As described in section 18.4.6.5, the majority of visitor destinations are either represented by viewpoints or included within the assessment of settlements.

Table 18-37 identifies the visual effects of the offshore Project on additional visitor destinations not already covered.

All of the destinations have been assessed as of High sensitivity on account of their High to Medium value as recreational and tourist destinations, some located within designated landscapes and the High susceptibility of the people visiting these destinations, whose attention would be focused on the landscape around them.

Table 18-39 Visitor destinations in Sutherland and Caithness

VISITOR DESTINATION	DISTANCE / DIRECTION TO OAA	DESCRIPTION OF MAGNITUDE OF CHANGE	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
Armadale Bay	28 km NW	There would be open views of the offshore Project across the expansive sea views at 28 km distance. The bay is contained by landform on either side which extend out providing a sense of enclosure, however, the offshore Project would occupy only half the sea horizon due to partial screening from intervening landform on the left-hand side of the bay.	Medium-low	Moderate (significant)
Strathy Bay	29 km NW	Views of the offshore Project would be limited by the landform of Strathy Point which would screen two thirds of the WTGs. Any WTGs visible would be beyond the Strathy Point landform to the left side of the view.	Low	Moderate / minor

In summary, significant visual effects would be experienced from Faraid Head (viewpoint 1), Achininiver Beach (viewpoint 4), Torrisdale Bay (viewpoint 5), Strathy Point (viewpoint 6), Melvich Beach (viewpoint 7) and Armadale Bay. The nature of these effects would be direct, cumulative, long-term (reversible) and adverse. None of the remaining visitor destinations on the West of Orkney Mainland and Hoy would be significantly affected by the offshore Project.

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in 18.11.

18.6.3.2 Effects on views and visual amenity - Orkney

18.6.3.2.1 Settlements

The visual effects likely to be experienced from settlements include consideration of residential areas, the public realm and public open spaces within the settlement boundaries that would be frequented by people. The sensitivity of each of these receptors (people) at settlements has been assessed as High. As described in section 18.4.6.5, Core Paths (and visitor destinations) are also included as part of the settlement assessment, where relevant.

Table 18-34 identifies the visual effects of the offshore Project on settlements on West Orkney Mainland.

Table 18-40 Settlements on the West Orkney Mainland

SETTLEMENT	DISTANCE / DIRECTION TO OAA	DESCRIPTION OF MAGNITUDE OF CHANGE	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
Graemsay	35 km W	The offshore Project would appear as a distant element in very clear conditions from the western edge of Graemsay, within an 80 degree of open sea view, with the closest WTGs occupying less than 10 degree of the HFoV. The majority of the island would be outwith the ZTV.	Low	Moderate
Petertown Clestrain	40 km W	Views from the settlement are orientated towards Hoy Sound and Graemsay with Hoy to the south-west and Stromness to the north-east. The offshore Project would appear as a distant element in the far sea horizon in very clear conditions beyond Hoy Sound, in the context of the Scrabster – Stromness ferry route.	Low-negligible	Minor
Outertown, Stromness	35 km W	Outertown is an extension to Stromness with properties scattered on an elevated location with views to the west and south towards Hoy and the sea. The offshore Project would appear as a distant element from much of this scattered settlement in very clear conditions within 100 degree of open sea view, with the closest WTGs occupying less than 20 degree of the HFoV. Represented by Viewpoint 24.	Low	Moderate
Northdyke / Quoyloo	36 km SE	These scattered settlements are located to the north of the Bay of Skaill at a slightly elevated location above the bay. The offshore Project would appear as a distant element from these scattered settlements in very clear conditions within 100 degree of open sea view, with the closest WTGs occupying less than 20 degree of the HFoV. Represented by Viewpoint 26 which is located to the south of the settlements.	Low	Moderate
Marwick	37 km SE	This scattered settlement located near the coast has elevated views out to sea. The offshore Project would appear as a distant element, in very clear conditions, within 100 degree of open sea view, with the closest WTGs occupying less than 15 degree of the HFoV. Represented by Viewpoint 27.	Low	Moderate

SETTLEMENT	DISTANCE / DIRECTION TO OAA	DESCRIPTION OF MAGNITUDE OF CHANGE	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
The Barony / Northside	41 km SE	Most properties within these settlements have restricted views of the sea to the south-west due to the intervening landform of Marwick Head. Given the long distance, the offshore Project, where visible, would be barely perceptible on the sea horizon and would only be visible in very clear conditions.	Negligible	Minor
Quoyscottie/ Dounby/ Miribister	43 km SE	These settlements are well over 40 km distance and are surrounded by undulating landform. The upper parts of the hubs and the blades of the north-eastern array of the offshore Project would be visible, however, given the long intervening distance, visibility would be barely perceptible on the sea horizon and would only be seen in very clear conditions.	Negligible	Minor

In summary, there would be no significant visual effects on any settlements on Orkney including the West Orkney Mainland and Hoy. This is due to a combination of the long intervening distance and the appearance of the offshore Project as a distant element within a vast sea context with the closest, most visible WTGs occupying a narrow HFoV. The nature of these effects would be direct, cumulative, long-term (reversible) and adverse to neutral.

18.6.3.2.2 Transport routes

As described in section 18.4.6.5, the A986 and A964 are included in the assessment. The A966 and B9056 are included as part of the assessment of the Sustrans National Cycle Route 1.

The views from these routes would be experienced transiently by road users (mainly drivers and where appropriate cyclists or walkers) who would experience the offshore Project as part of the changing sequence of views experienced from the road. Each of these routes were driven or travelled in both directions in order to assess the potential effects and each assessment has been visited on-site with the use of sequential wirelines and ZTV maps. The assessment has also taken account of other windfarm developments visible from these routes.

Road users would experience transient views, at speed and would be focused on the road ahead. Susceptibility to change would be Medium however the value of the routes are dependent on if the route passes through a designated landscape or is part of a promoted route, and the overall sensitivity to change for these routes would be High or Medium.

Table 18-41 Transport routes on the coast of the West of Orkney Mainland and Hoy

TRANSPORT ROUTE	DISTANCE / DIRECTION TO OAA	DESCRIPTION OF MAGNITUDE OF CHANGE	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
A986	40 km W	ZTV coverage indicates theoretical visibility from the A966 junction in the south to the settlement of Dounby. The upper parts of the hubs and the blades of the north-eastern part of the offshore Project would be visible from sections of the route where vegetation and landform do not obscure views, however, given the long intervening distance, visibility would be barely perceptible on the sea horizon and would only be seen in very clear conditions.	Negligible	Minor to Negligible
A964	39 km W	ZTV coverage indicates theoretical visibility from the Bay of Ireland in the north to Midland in the south. Views west from the route are oblique towards Hoy Sound and Graemsay with Hoy to the south-west and Stromness to the north-east. The offshore Project would appear as a distant element in the far sea horizon in very clear conditions beyond Hoy Sound, in the context of the Scrabster – Stromness ferry route.	Low-negligible	Minor to Negligible

In summary, there would be no significant visual effects from any of the transport routes on the West of Orkney Mainland and Hoy. This is due to a combination of the long intervening distance and the appearance of the offshore Project as a distant element within a vast sea context with the closest, most visible WTGs occupying a narrow HFoV. The nature of these effects would be direct, cumulative, long-term (reversible) and adverse to neutral.

18.6.3.2.3 Recreational routes and core paths

All of the routes have been assessed as of High sensitivity on account of their High to Medium value as recreational routes, some routed through designated landscapes and the High susceptibility of the people using these routes, mostly walkers and cyclists, whose attention would be focused on the landscape around them. It is noted however that these routes would also be used by road users of a lower sensitivity who may be commuting or working.

Each of these routes were visited and walked / driven in sections according to the ZTV coverage and the assessment has been assisted on-site with the use of sequential wirelines.

Table 18-37 identifies the visual effects of the offshore Project on recreational routes and core paths on the coast of West Orkney Mainland and Hoy.

Table 18-42 Recreational routes and core paths on the coast of the West of Orkney Mainland and Hoy

RECREATIONAL ROUTE	DISTANCE / DIRECTION TO OAA	DESCRIPTION	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
West of Orkney mainland				
Sustrans National Cycle Route 1 Burwick to Kirkwall and Stromness (including A966 and B9056)	35.7 km SW	The route comes closest to the offshore Project at Bay of Skaill, which is represented by Viewpoint 26. The route overlaps with the ZTV between Skaill and Northside and follows the B9056 and A966 whilst the remainder of the route is outwith the ZTV. In views from the northern part of the route between Skaill and Northside, the offshore Project would appear as a distant element in views in a south-west direction on the sea horizon in very clear conditions and would start to gradually fade away in views as one travels north.	Low to Negligible	Moderate to Negligible
The St Magnus Way[54] (Core Path)	40 km SW	St Magnus Way is 58-mile pilgrimage route through Mainland Orkney and is largely outwith the ZTV. Viewpoint 28 next to Birsay Bay represents visibility of the offshore Project, from a short coastal section of the walk where it merges from the inland, heading towards St Magnus Church Birsay after which it continues along the north coast of Orkney where visibility of the offshore Project disappears due to intervening landform. There would be long distant views of the offshore Project around Birsay in very clear conditions, however, the WTGs would be barely perceptible at this distance from a short section of this walk.	Low-negligible to Negligible	Minor

[54] *https://www.stmagnusway.com/.*

RECREATIONAL ROUTE	DISTANCE / DIRECTION TO OAA	DESCRIPTION	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
WM26 / West Coast Path (Core Path)	33 km W / SW	This 35 km long coastal route along the open western coast of the West of Orkney mainland offers spectacular cliff scenery. The walk extends from Stromness in the south to the Brough of Birsay in the north, has a northwards orientation as it is promoted to walk south to north. Visibility of the offshore Project would vary along this coastline due to distance and direction. Viewpoints 25, 26, 27 and 28 are along this path which illustrate varying degrees of visibility. The offshore Project would be visible in westerly views as a distant element on the sea horizon gradually becoming perceptible as the route reaches Birsay at over 40 km distance.	Low to Negligible	Moderate to Minor
Hoy				
Old Man of Hoy (Core Path H2)	28.2 km	The route from Rackwick Outdoor Centre extends along the steep bottom slope of Moor Fea, the landform partially screening views of the offshore Project from Rackwick Beach. Once the route reaches the southern slopes of Moor Fea, views of the offshore Project would be available until the Old Man of Hoy. From this section of the route, the offshore Project would appear as a new and distant element across the vast sea horizon to the west, but not intervening in views of the distinctive coastal landforms. Therefore, the magnitude of change is equivalent to that as assessed for Viewpoint 22, on the slope of Moor Fea. From the western end of the route as it reaches the Old Man of Hoy where most people are likely to pause and view the landscape / seascape, the offshore Project would be partially screened by the Old Man itself.	Medium to Negligible	**Major/ moderate (significant)** to Negligible
Rackwick Beach (Core Path H3)	30.8 km W	This short route extends from Rackwick to Rackwick Beach. Much of the route is outwith the ZTV except when it reaches Rackwick Beach where views would be similar to Viewpoint 21. Due to the long intervening distance, the south-west orientation of the bay and the relatively small HFoV 6 degrees occupied by WTGs adjacent to the large-scale landform of Rora Head, the magnitude of change is assessed as Medium-low. The effects are considered significant primarily as a result of the sensitivity of the Rackwick Beach.	Medium-low	**Moderate (significant)**

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in 18.11.

18.6.3.2.4 Ferry routes

The Stromness to Scrabster ferry route has been assessed in section 18.6.3.1.4.

18.6.3.2.5 Visitor destinations

As described in section 18.4.6.5, the majority of visitor destinations are either represented by viewpoints or included within the assessment of settlements.

Table 18-37 identifies the visual effects of the offshore Project on additional visitor destinations on West of Orkney mainland and Hoy, not already covered.

All of the destinations have been assessed as of High sensitivity on account of their High to Medium value as recreational and tourist destinations, some located within designated landscapes and the High susceptibility of the people visiting these destinations, whose attention would be focused on the landscape around them.

Table 18-43 Visitor destinations on West of Orkney Mainland and Hoy

VISITOR DESTINATION	DISTANCE / DIRECTION TO OAA	DESCRIPTION	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
Stromness Citadel Viewpoint	36 km SW / W	There are 360-degree panoramic views of the surrounding landscape from the top of the Citadel which is a promoted viewpoint on OS maps. The primary focus of the views is of the town of Stromness to the east and the cliffs of Hoy to the south / south-west. The offshore Project would appear as a distant element to the south-west / west from this viewpoint over 36 km distance in very clear conditions within 100 degrees of open sea view, with the closest WTGs occupying less than 20 degrees of the HFoV. Due to the vast scale and elevated position of the coastal landform which allows the wind farm to appear more coherent in long distance views the effects attributable to the offshore Project are considered not significant.	Low	Moderate (not significant)

In summary, significant visual effects would be experienced from Rackwick Bay and the Old Man of Hoy (represented by viewpoints 21 and 22). The nature of these effects would be direct, cumulative, long-term (reversible) and adverse. None of the remaining visitor destinations on the West of Orkney Mainland and Hoy would be significantly affected by the offshore Project. This is due to a combination of the long intervening distance and the appearance of the offshore Project as a distant element within a vast sea context with the closest, most visible WTGs occupying a narrow HFoV.

18.6.4 Potential effects during decommissioning

The preferred decommissioning option will be for full removal of the offshore Project as far as practically possible, whilst recognising that this will be subject to assessments and consultation at the time of decommissioning.

Decommissioning effects on seascape, landscape and visual receptors will occur as a result of the decommissioning activities including the presence of jack-up vessels and/or dynamic positioning heavy lift vessels during the decommissioning stage for the decommissioning of foundations, substructures and WTGs; windfarm service vessels and accommodation vessels; and partially decommissioned offshore elements; all of which may combine to alter the seascape / landscape character or views of the area through visibility of these changes.

The effects arising as a result of the decommissioning of the offshore Project are assessed as being of the same magnitude and significance on all receptors as those arising due to their operation and maintenance, as assessed in sections 18.6.2 and 18.6.3 and, with the residual effects being short-term, temporary and reducing during the length of the decommissioning stage. The effect of offshore Project post-decommissioning is assessed as zero.

18.6.5 Summary of potential effects

A summary of the seascape, landscape and visual effects of the offshore Project are provided in Table 18-44.

Table 18-44 Summary of potential effects across all stages

POTENTIAL EFFECT	RECEPTOR	SENSITIVITY OF RECEPTOR	MAGNITUDE OF IMPACT	CONSEQUENCE (SIGNIFICANCE OF EFFECT)	SECONDARY MITIGATION REQUIREMENTS	RESIDUAL CONSEQUENCE (SIGNIFICANT OF EFFECT)
Coastal / seascape character						
Coastal Character of Sutherland	Type 1: Remote High Cliffs (including Coastal edge High Cliffs and Sheltered Bays LCT (141))	High	Medium-low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
	Type 7: Kyles and Sea Lochs	High	Low (Kyle of Durness & Loch Eriboll)	Moderate (not significant) (Kyle of Durness & Loch Eriboll)	Consideration of secondary mitigation as outlined in section 18.11.	Moderate (not significant) (Kyle of Durness & Loch Eriboll)
			Medium (Kyle of Tongue)	**Major / Moderate (significant)** (Kyle of Tongue)		**Major / Moderate (significant)** (Kyle of Tongue)
Coastal Character of Caithness	RCCA 47 Portskerra	Medium	Low	Moderate / minor (not significant)	None required above embedded mitigation measures.	Moderate / minor (not significant)
	RCCA 46 Brims Ness	Medium	Low	Moderate / minor (not significant)	None required above embedded mitigation measures.	Moderate / minor (not significant)

POTENTIAL EFFECT	RECEPTOR	SENSITIVITY OF RECEPTOR	MAGNITUDE OF IMPACT	CONSEQUENCE (SIGNIFICANCE OF EFFECT)	SECONDARY MITIGATION REQUIREMENTS	RESIDUAL CONSEQUENCE (SIGNIFICANT OF EFFECT)
	RCCA 45 Dunnet Bay and Thurso Bay	Medium	Low - negligible	Minor / negligible (not significant)	None required above embedded mitigation measures.	Minor / negligible (not significant)
	RCCA 44 Scarfskerry and Dunnet Head	Medium	Low - negligible	Minor / negligible (not significant)	None required above embedded mitigation measures.	Minor / negligible (not significant)
Coastal Character of Orkney	RCCA 25 Breckness and Row Head	High-medium	Low	Moderate / minor (not significant)	None required above embedded mitigation measures.	Moderate / minor (not significant)
	RCCA 26 Marwick Head and Bay of Skaill	High-medium	Low	Moderate / minor (not significant)	None required above embedded mitigation measures.	Moderate / minor (not significant)
	RCCA 29 Graemsay	High-medium	Low	Moderate / minor (not significant)	None required above embedded mitigation measures.	Moderate / minor (not significant)
	RCCA 36 West Hoy Cliffs	High	Low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)

POTENTIAL EFFECT	RECEPTOR	SENSITIVITY OF RECEPTOR	MAGNITUDE OF IMPACT	CONSEQUENCE (SIGNIFICANCE OF EFFECT)	SECONDARY MITIGATION REQUIREMENTS	RESIDUAL CONSEQUENCE (SIGNIFICANT OF EFFECT)
	RCCA 37 Rora Head and St John's Head (overlapped with Rugged Hills LCT (316) and Enclosed Bays LCT (305))	High	Medium-low	Moderate (significant)	Consideration of secondary mitigation as outlined in section 18.11.	Moderate (significant)
Landscape character						
Landscape Character of Sutherland	• Sandy Beaches and Dunes LCT (140)	High	Medium (Torrisdale Bay and Melvich Bay)	Major / moderate (significant) (Torrisdale Bay and Melvich Bay)	Consideration of secondary mitigation as outlined in section 18.11.	Major / moderate (significant) (Torrisdale Bay and Melvich Bay)
	• Coastal Crofts & Small Farms LCT (144)	High	Low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
Landscape designations						
Effects on Highland Council SLAs	Oldshoremore, Cape Wrath and Durness SLA	High	Medium-low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)

POTENTIAL EFFECT	RECEPTOR	SENSITIVITY OF RECEPTOR	MAGNITUDE OF IMPACT	CONSEQUENCE (SIGNIFICANCE OF EFFECT)	SECONDARY MITIGATION REQUIREMENTS	RESIDUAL CONSEQUENCE (SIGNIFICANT OF EFFECT)
	Eriboll East and Whiten Head SLA	High	Medium-low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
	Farr Bay, Strathy and Portskerra SLA	High	Medium-low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
	Dunnet Head SLA	High	Low	Moderate / minor (not significant)	None required above embedded mitigation measures.	Moderate / minor (not significant)
Effects on NSA	Kyle of Tongue NSA	High	High-medium	**Major / moderate (significant)**	Consideration of secondary mitigation as outlined in section 18.11.	**Major / moderate (significant)**
	Hoy and West Mainland NSA	High	Low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
Designated heritage assets						
Effects on Designated	Castle of Mey GDL	High	Negligible	Minor / negligible (not significant)	None required above embedded mitigation measures.	Minor / negligible (not significant)

POTENTIAL EFFECT	RECEPTOR	SENSITIVITY OF RECEPTOR	MAGNITUDE OF IMPACT	CONSEQUENCE (SIGNIFICANCE OF EFFECT)	SECONDARY MITIGATION REQUIREMENTS	RESIDUAL CONSEQUENCE (SIGNIFICANT OF EFFECT)
Heritage Assets	Tongue House GDL	High	Low-negligible	Minor (not significant)	None required above embedded mitigation measures.	Minor (not significant)
Visual effects – Sutherland and Caithness						
Settlements	Durness (includes Core Paths around settlement and Sango Bay and Campsite)	High	Medium	Major / moderate (significant)	Consideration of secondary mitigation as outlined in section 18.11.	Major / moderate (significant)
	Midfield to Midtown (including Talmine), Kyle of Tongue (includes Core Paths around settlement and Talmine Bay and campsite)	High	High - medium	Major/ moderate (significant)	Consideration of secondary mitigation as outlined in section 18.11.	Major/ moderate (significant)
	Tongue (includes Core Path south of settlement and Tongue House GDL)	High	Low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
	Skullomie and Coldbackie, Kyle of Tongue (includes Core Paths around settlement)	High	High - medium	Major/ moderate (significant)	Consideration of secondary mitigation as outlined in section 18.11.	Major/ moderate (significant)

POTENTIAL EFFECT	RECEPTOR	SENSITIVITY OF RECEPTOR	MAGNITUDE OF IMPACT	CONSEQUENCE (SIGNIFICANCE OF EFFECT)	SECONDARY MITIGATION REQUIREMENTS	RESIDUAL CONSEQUENCE (SIGNIFICANT OF EFFECT)
	Skerray (includes Core Paths around settlement)	High	Low	Moderate / minor (not significant)	None required above embedded mitigation measures.	Moderate / minor (not significant)
	Bettyhill (includes Core Paths in vicinity of settlement and campsite)	High	Medium	Major / moderate (significant)	Consideration of secondary mitigation as outlined in section 18.11.	Major / moderate (significant)
	Kirtomy (includes Core Path to east of settlement)	High	Medium	Major / moderate (significant)	Consideration of secondary mitigation as outlined in section 18.11.	Major / moderate (significant)
	Armadale (includes Core Path to west of settlement)	High	Medium-low	Moderate (significant)	Consideration of secondary mitigation as outlined in section 18.11.	Moderate (significant)
	Lednagullin	High	Medium-low	Moderate (significant)	Consideration of secondary mitigation as outlined in section 18.11.	Moderate (significant)
	Strathy (includes Core Path north of settlement)	High	Low	Moderate / minor (not significant)	None required above embedded mitigation measures.	Moderate / minor (not significant)

POTENTIAL EFFECT	RECEPTOR	SENSITIVITY OF RECEPTOR	MAGNITUDE OF IMPACT	CONSEQUENCE (SIGNIFICANCE OF EFFECT)	SECONDARY MITIGATION REQUIREMENTS	RESIDUAL CONSEQUENCE (SIGNIFICANT OF EFFECT)
	Portskerra, Melvich (includes Core Paths around settlement and campsite)	High	Medium	Major / moderate (significant)	Consideration of secondary mitigation as outlined in section 18.11.	Major / moderate (significant)
	Reay (includes Core Paths around settlement and golf course and Sandside Bay)	High	Medium-low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
	Buldoo	High	Low-negligible	Minor (not significant)	None required above embedded mitigation measures.	Minor (not significant)
	Crosskirk (includes Core Paths west of settlement)	High	Medium-low	Moderate (significant)	Consideration of secondary mitigation as outlined in section 18.11.	Moderate (significant)
	Murkle	High	Low-Negligible	Minor / negligible (not significant)	None required above embedded mitigation measures.	Minor / negligible (not significant)

POTENTIAL EFFECT	RECEPTOR	SENSITIVITY OF RECEPTOR	MAGNITUDE OF IMPACT	CONSEQUENCE (SIGNIFICANCE OF EFFECT)	SECONDARY MITIGATION REQUIREMENTS	RESIDUAL CONSEQUENCE (SIGNIFICANT OF EFFECT)
Transport routes	A836	High	High – medium to Negligible	**Major / moderate (significant)** to Negligible (not significant)	Consideration of secondary mitigation as outlined in section 18.11.	**Major / moderate (significant)**
	A838	See Recreational Routes below				
Recreational routes	The North Coast 500 (overlapped with Sustrans National Cycle Route 1, A838 and A836)	High	High – medium to Negligible	**Major / moderate (significant)** to Negligible (not significant)	Consideration of secondary mitigation as outlined in section 18.11.	**Major / moderate (significant)**
Ferry routes	Ferry route between Scrabster and Stromness	High	Medium to Negligible	**Major / moderate (significant)** to Negligible (not significant)	Consideration of secondary mitigation as outlined in section 18.11.	**Major / moderate (significant)**
Visitor destinations	Armadale Bay	High	Medium - low	**Moderate (significant)**	Consideration of secondary mitigation as outlined in section 18.11.	**Moderate (significant)**
	Strathy Bay	High	Low	Moderate / minor (not significant)	None required above embedded mitigation measures.	Moderate / minor (not significant)
	Significant visual effects would also be experienced from Faraid Head (viewpoint 1), Achininiver Beach (viewpoint 4), Torrisdale Bay (viewpoint 5), Strathy Point (viewpoint 6) and Melvich Beach (viewpoint 7). None of the remaining visitor destinations on the West of Orkney mainland and Hoy would be significantly affected by the offshore Project.					

POTENTIAL EFFECT	RECEPTOR	SENSITIVITY OF RECEPTOR	MAGNITUDE OF IMPACT	CONSEQUENCE (SIGNIFICANCE OF EFFECT)	SECONDARY MITIGATION REQUIREMENTS	RESIDUAL CONSEQUENCE (SIGNIFICANT OF EFFECT)
Visual effects – Orkney						
Settlements	Graemsay	High	Low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
	Petertown Clestrain	High	Low - negligible	Minor (not significant)	None required above embedded mitigation measures.	Minor (not significant)
	Outertown	High	Low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
	Northdyke / Quoyloo	High	Low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
	Marwick	High	Low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
	The Barony / Northside	High	Negligible	Minor (not significant)	None required above embedded mitigation measures.	Minor (not significant)

POTENTIAL EFFECT	RECEPTOR	SENSITIVITY OF RECEPTOR	MAGNITUDE OF IMPACT	CONSEQUENCE (SIGNIFICANCE OF EFFECT)	SECONDARY MITIGATION REQUIREMENTS	RESIDUAL CONSEQUENCE (SIGNIFICANT OF EFFECT)
	Quoyscottie/ Dounby/ Miribister	High	Negligible	Minor (not significant)	None required above embedded mitigation measures.	Minor (not significant)
Transport Routes	A986	High to Medium	Negligible	Minor to Negligible (not significant)	None required above embedded mitigation measures.	Minor to Negligible (not significant)
	A964	High to Medium	Low - negligible	Minor to Negligible (not significant)	None required above embedded mitigation measures.	Minor to Negligible (not significant)
Recreational Routes	Sustrans National Cycle Route 1 Burwick to Kirkwall and Stromness (including A966 and B9056)	High	Low to Negligible	Moderate to Negligible (not significant)	None required above embedded mitigation measures.	Moderate to Negligible (not significant)
	The St Magnus Way	High	Low – negligible to Negligible	Minor (not significant)	None required above embedded mitigation measures.	Minor (not significant)
	WM26 / West Coast Path	High	Low to Negligible	Moderate to Minor (not significant)	None required above embedded mitigation measures.	Moderate to Minor (not significant)

POTENTIAL EFFECT	RECEPTOR	SENSITIVITY OF RECEPTOR	MAGNITUDE OF IMPACT	CONSEQUENCE (SIGNIFICANCE OF EFFECT)	SECONDARY MITIGATION REQUIREMENTS	RESIDUAL CONSEQUENCE (SIGNIFICANT OF EFFECT)
	Old Man of Hoy (H2)	High	Medium to Negligible	**Major / moderate (significant)** to Negligible (not significant)	Consideration of secondary mitigation as outlined in section 18.11.	**Major / moderate (significant)** to Negligible (not significant)
	Rackwick Beach (H3)	High	Medium – low	**Moderate (significant)**	Consideration of secondary mitigation as outlined in section 18.11.	**Moderate (significant)**
Ferry Routes	See Ferry routes for Caithness and Sutherland above					
Visitor Destinations	Stromness Citadel	High	Low	Moderate (not significant)	None required above embedded mitigation measures.	Moderate (not significant)
	Significant visual effects would also be experienced from Rackwick Bay and the Old Man of Hoy (represented by viewpoints 21 and 22). None of the remaining visitor destinations on the West of Orkney mainland and Hoy would be significantly affected by the offshore Project.					

18.6.6 Summary of night-time effects

The night-time lighting assessment is reported in SS18: SLVIA Night-time lighting assessment.

The night-time effects on visual receptors arising as a result of the aviation and marine navigational lighting associated with the offshore Project have been assessed in respect of the worst case scenario, subject to CAA approval.

Five representative viewpoints have been assessed in detail to demonstrate the potential effects of the aviation warning lights on visual receptors. Significant (Moderate) effects would arise in respect of Viewpoint N1: Faraid Head and N6: Strathy Point in Sutherland, albeit only in respect of the 2000cd perimeter lights which would only be experienced very infrequently (6% of the time during periods of poor visibility (<5 km)) and not the 200cd lighting that would be experienced for the majority of the time (94% of the time during periods of good visibility (>5 km)). Viewpoint N6 would also only experience significant effects when the Strathy Lighthouse is switched off. None of the night-time viewpoints in Caithness or Orkney would be significant.

A number of factors are considered when assessing the significance of night-time visual effects:

- The low likelihood of people being present at the viewpoints at night;
- The transient nature of views when moving through the landscape;
- The likelihood of people having some form of personal light sources with them for their own safety, which will create some element of baseline light; and
- The short duration that such effects are likely to be experienced for.

The visual receptors that would experience significant (Moderate) visual night-time effects (and cumulative effects) include the Sutherland settlements of Durness, Midfield to Midtown, Skullomie and Coldbackie, Bettyhill, Kirtomy, Armadale, Lednagullin, Portskerra and Melvich, the Scrabster to Stromness ferry route (for three months of the year), the Old Man of Hoy Core Path, and a number of visitor destinations such as Faraid Head, Achininiver Beach, Torrisdale Bay. Strathy Point, Melvich Beach and Armadale Bay in Sutherland, and Rackwick Beach in Orkney. There would also be significant combined cumulative effects as a result of the offshore Project and the PFOWF from Strathy Point.

There would also be significant (Moderate) night-time effects on the perceived character that may occur as a component of visual effects from the following coastal character types and designated landscapes:

- Type 1: Remote High Cliffs – Sutherland (includes Oldshoremore, Cape Wrath and Durness SLA, Eriboll East and Whiten Head SLA and Farr Bay, Strathy and Portskerra SLA);
- Type 7: Kyles and Sea Lochs – Sutherland (Kyle of Tongue) (includes Kyle of Tongue NSA); and
- RCCA 37 Rora Head and St John's Head – Hoy (Orkney) (includes Hoy and West of Mainland NSA).

All the above significant effects would be as a result of the 2000cd perimeter lights during periods of poor visibility (<5 km). According to meteorological records, this is likely to occur for 6% of the time. More typically, the effects would be not significant during periods of good visibility (>5 km) when the light intensity would be at 200cd. According to meteorological records, this is likely to occur for 94% of the time.

None of the remaining visual receptors would be significantly affected by the aviation warning lights of the offshore Project.

Operation of the aviation warning lights would have no adverse effect on periods of sunrise (when the sun disk passes above the horizon and the period just after this) and sunset (the period just before the sun disk passes below the horizon) as the operation is programmed to switch off 30 mins before sunrise and switch on 30 mins after sunset, respectively.

18.7 Assessment of cumulative effects

18.7.1 Introduction

Potential impacts from the offshore Project have the potential to interact with those from other developments, plans and activities, resulting in cumulative impacts on seascape, landscape and visual receptors. The general approach to the cumulative effects assessment is described in chapter 7: EIA methodology and further detail is provided below.

NatureScot guidance, Assessing the Cumulative Impact of Onshore Wind Energy Developments (2021) is used to inform the specific assessment of the cumulative effects of both on and offshore windfarms. Both GLVIA3 and NatureScot guidance provides the basis for the methodology for the cumulative assessment undertaken in the SLVIA. The NatureScot (2021) guidance defines:

- "Cumulative effects as the additional changes caused by a proposed development in conjunction with other similar developments or as the combined effect of a set of developments taken together;
- Cumulative landscape effects are those effects that 'can impact on either the physical fabric or character of the landscape, or any special values attached to it'; and
- Cumulative visual effects are those effects that can be caused by combined visibility, which occurs where the observer is able to see two or more developments from one viewpoint and/or sequential effects which occur when the observer has to move to another viewpoint to see different developments".

This section of the SLVIA assesses cumulative effects arising from the in-combination and addition of the offshore Project to other operational / under construction and consented windfarms plus cumulative developments, which are the subject of a valid planning application. Operational, consented and under construction windfarms are considered as part of the baseline and effects upon seascape, landscape and visual receptors (including relevant designations) have been assessed on this basis in section 18.6 above. For consistency the section includes the cumulative effects of the offshore Project in conjunction with both cumulative scenarios:

- Scenario 1: Operational / under construction / consented scenario – the offshore Project in addition to the operational / under construction and consented windfarms; and
- Scenario 2: Application scenario - the offshore Project in addition to the operational / under construction / consented and application stage windfarms.

Both scenarios provide an understanding of the different levels of cumulative effects around how cumulative developments are brought forward.

Both scenarios; with operational / consented and with application stage developments have also been assessed in the Viewpoint Assessment, SS16: SLVIA Viewpoint Assessment.

The locations of all windfarms (operational, under construction, consented, application) within 60 km of the development are shown on Figure 18.6. These data have been taken from Marine Directorate (formally Marine Scotland) National Marine Plan Interactive (NMPi), THC Dataset (2022) as of 28th December 2022.

The list of relevant developments for inclusion within the cumulative effects assessment is outlined in Table 18-45. This has been informed by a screening exercise, undertaken to identify relevant developments for consideration within the cumulative effects assessments for each EIA topic, based on defined Zones of Influence (ZoI).

Table 18-45 Cumulative windfarms within the study area

NO.	SITE NAME	NO. OF WTGS	DISTANCE FROM OAA (KM)	BLADE TIP (M)	CONTRIBUTION TO THE CUMULATIVE ASSESSMENT
Operational / under construction windfarms					
E01	Bettyhill	2	30	119	Negligible – two WTGs to the west of Strathy Forest are well absorbed by the landscape, with no visual interaction with the offshore Project.
E02	Ackron Farm	1	33	35.4	Negligible – WTGs < 50 m high.
E03	Forss I & II	6	33	78	Included – CZTV Figure 18.17.
E04	Strathy North	33	33	110	Included – CZTV Figure 18.18.
E06	Baillie	21	37	110	Included – CZTV Figure 18.17.
E07	Limekiln	21	38	149.9	Included – CZTV Figure 18.20.
E08	Thurso WWTW	1	39	34.8	Negligible – WTGs < 50 m high.
E09	Ore Brae, Hoy	1	41	67	Negligible – single WTG well absorbed into the landscape.
E10	Moss of Geise	1	42	45.5	Negligible – WTGs < 50 m high.

NO.	SITE NAME	NO. OF WTGS	DISTANCE FROM OAA (KM)	BLADE TIP (M)	CONTRIBUTION TO THE CUMULATIVE ASSESSMENT
E11	Weydale Farm	1	43	66	Negligible – single WTG well absorbed into the landscape.
E12	Holodykes	1	44	67	Negligible – single WTG well absorbed into the landscape.
E13	Taigh na Muir	1	46	79	Negligible – single WTG well absorbed into the landscape.
E14	West Hill, Flotta	1	46	99.5	Negligible – single WTG well absorbed into the landscape.
E16	Burgar Hill	6	48	116	Negligible – at a distance beyond 44 km within the eastern part of Orkney mainland where there is no visibility of the offshore Project.
E17	Lochend	4	50	99.5	Negligible – WTGs beyond 50 km.
E18	Hammars Hill	5	50	67	Negligible – WTGs beyond 50 km.
E19	Rennibister	1	51	67	Negligible – WTGs beyond 50 km.
E20	Burnside Lyth	1	54	34.2	Negligible – WTGs < 50 m high.
E21	Crowness Business Park	1	54	67	Negligible – WTGs beyond 50 km.
E22	Achlachan	5	55	115	Negligible – WTGs beyond 50 km.
E23	Stroupster	13	56	110	Negligible – WTGs beyond 50 km.
E24	Causeymire	21	56	100	Negligible – WTGs beyond 50 km.
E26	Halsary	15	57	120	Negligible – WTGs beyond 50 km.
E27	Bad a Cheo	13	58	112	Negligible – WTGs beyond 50 km.
E28	Kingarly Hill	1	58	67	Negligible – WTGs beyond 50 km.

NO.	SITE NAME	NO. OF WTGS	DISTANCE FROM OAA (KM)	BLADE TIP (M)	CONTRIBUTION TO THE CUMULATIVE ASSESSMENT
E29	Northfield, Burray	1	59	70	Negligible – WTGs beyond 50 km.
Consented windfarms					
C01	Hill of Lybster	2	26	201	Negligible – this single WTG merges with Forss group with no visual interaction with the offshore Project.
C02	Thusater Farm	1	34	99.5	Negligible – single WTG well absorbed into the landscape.
C03	Strathy Wood	1	36	33.4	Negligible – WTGs < 50 m high.
C04	Strathy South	13	36	180	Included – CZTV Figure 18.18.
C05	Limekiln Extension	35	38	200	Included – CZTV Figure 18.20.
C06	Hoy Community	5	38	149.9	Included – CZTV Figure 18.13.
C07	Cnoc na Gaoithe	1	44	149.9	Negligible – single WTG well absorbed into the landscape.
C08	Costa Head	1	45	33.5	Negligible – WTGs < 50 m high.
C09	Akla	1	46	125	Negligible – single WTG well absorbed into the landscape.
C10	Hammars Hill Extension	1	46	67	Negligible – single WTG well absorbed into the landscape.
C11	Quanterness	2	50	149.85	Negligible – WTGs beyond 50 km.
C12	Thura Mains	6	52	149.9	Negligible – WTGs beyond 50 km.
C13	Slickly	1	52	33.5	Negligible – WTGs beyond 50 km.
C14	Achlachan II	11	55	135 / 149.9	Negligible – WTGs beyond 50 km.

NO.	SITE NAME	NO. OF WTGS	DISTANCE FROM OAA (KM)	BLADE TIP (M)	CONTRIBUTION TO THE CUMULATIVE ASSESSMENT
C15	Hesta Head	3	56	110	Negligible – WTGs beyond 50 km.
C16	Cogle Moss	5	57	125	Negligible – WTGs beyond 50 km.
Application windfarms					
A01	PFOWF [55]	7	23	300	Included – CZTV Figure 18.12.
A02	Armadale	12	29	149.9	Included – CZTV Figure 18.14.
A03	Forss III	2	35	124.5	Included – CZTV Figure 18.17.
A04	Kirkton	11	34	149.9	Included – CZTV Figure 18.19.
A05	Cairnmore Hill	5	37	138.5	Included – CZTV Figure 18.19.
A06	Nisthill	4	44	180	Negligible – at a distance beyond 44 km within the eastern part of Orkney mainland where there is no visibility of the offshore Project.
A07	East of Whitemoss	1	45	33.5	Negligible – WTGs < 50 m high.
A08	Hollandmey	10	50	149.9	Negligible – WTGs beyond 50 km.
A09	Tormsdale	12	56	149.9	Negligible – WTGs beyond 50 km.

The Caithness coast accommodates several large-scale energy developments, including Forss I & II. To the west of Thurso, the Baillie WTGs are prominent in views towards the hinterland from the NC 500 (A836), the Dounreay NPDE and the Vulcan NRTE, towards the Atlantic. Closer to Reay, to the west of Dounreay, the Limekiln WTGs are visible

[55]At the time of writing, PFOWF was yet to be consented and therefore, the cumulative effects assessment is based on PFOWF being at the application stage. PFOWF will incorporate the currently consented Pentland Floating Offshore Wind Demonstrator turbine, and hence PFOWF only has been considered. The PFOWF Section 36 Consent and Marine Licence was recently granted for 10 years. However, the cumulative effects assessment has been based on the Project Design Envelope, as specified within the EIA, and therefore, an operational life of up to 30 years for the PFOWF has been considered. Since consent was granted in June 2023, PFOWF have submitted a Screening Report to MD-LOT with the intention to request a variation to the Section 36 Consent. This variation will incorporate refinements to the Project Design Envelope and to extend the operational life to 25 years.

from the NC 500 (A836) and across the coastal area in views inland. The other onshore developments are set back from the coast within the Farmed Lowland Plain LCT. The Caithness coast is at its closest 30 km from the offshore Project and as it extends eastwards the distance from the offshore Project increases in correlation. The offshore Project would not appear in simultaneous visibility with existing developments with the exception of Crosskirk, where the Forss group appears prominently. The offshore Project would be visible as a distant feature within the undeveloped seascape. However, due to the intervening distance and topography, and the vast scale sea context, the offshore Project would not increase the magnitude of change to the extent that the landscape would become a windfarm landscape.

The future cumulative context would potentially bring in the Forss Extension with larger WTGs and Cairnmore Hill WTGs just 4 km to the south-east of Forss. Approximately 9 km to the north-west of Forss, is the proposed PFOWF, which would add to the industrialisation of this coastal edge. These large floating WTGs (max tip height is 300 m Highest Astronomical Tide (HAT)) would add to the cumulative baseline and would also introduce an offshore development closer to the coast. With this change the additional effects of the offshore Project would be reduced in certain views from Caithness, where it would appear behind the PFOWF WTGs as a subsidiary and distant feature.

18.7.2 Cumulative seascape, landscape and visual effects with operational, consented and under construction windfarms

As noted, the addition of the offshore Project to the operational / under construction and consented windfarms has been assessed in the main assessment contained in section 18.6, including both construction and operational stages.

This section provides further analysis in relation to the windfarms which form part of the cumulative baseline, and those of which currently contribute to a significant cumulative effect within the coastal edge. CZTVs have been produced for these selected windfarms, which were identified during the field survey and based on cumulative wirelines produced on Resoft Windfarm software (Release 5).

The SLVIA is supported by visualisations in Figures 18.VP1-18.VP28, all of which include cumulative wirelines, which illustrate the cumulative context for each of the representative viewpoints. CZTV have been produced to identify the cumulative visibility of the offshore Project with other windfarms which contribute to a significant cumulative effect within the study area. These include:

- Hoy Community CZTV Figure 18.13;
- Bettyhill CZTV Figure 18.15;
- Baillie CZTV Figure 18.16;
- Forss I&II CZTV Figure 18.17;
- Strathy Group CZTV Figure 18.18; and
- Limeklin and Limeklin Extension CZTV Figure 18.20.

18.7.2.1.1 Hoy Community

Hoy Community Windfarm is visible across the Pentland Firth from Dunnet Head and to the east of the headland, where views of the offshore Project would be beyond 40 km distance. This is reflected by the CZTV in Figure 18.13

(SS19: SLVIA Figures). The added cumulative magnitude of change attributable to the offshore Project would be low-negligible due to the long intervening distance. The Hoy Community WTGs appear on cumulative wirelines of Viewpoints VP13, 14 and 15.

18.7.2.1.2 Bettyhill

These two WTGs to the west of Strathy Forest are well absorbed by the landscape, with limited visual interaction with the offshore Project. The CZTV (Figure 18.15) indicates cumulative visibility mainly around Torrisdale Bay, the west side of Strath Naver and around Strathy Forest. The added cumulative magnitude of change attributable to the offshore Project would be low. The Bettyhill WTGs appear on cumulative wirelines of Viewpoints: VP2 (28km), 5 (5 km) and 8 (21.5 km).

18.7.2.1.3 Baillie

The CZTV (Figure 18.16, (SS19: SLVIA Baseline Figures) indicates that the main cumulative effects would be expected along the coastal area between Reay and Scrabster. Alongside Forss I & II, the area accommodates Dounreay NPDE and Vulcan NRTE which form the context in views from the A836. The Baillie WTGs to the south of ForssI & II are well visible within the shallow and busy coastal area to the west of Thurso, although not appearing in combined visibility with the offshore Project. The Baillie WTGs appear on cumulative wirelines of Viewpoints: 6, 8, 9, 10, 12, 16, 19. The added cumulative magnitude of change attributable to the offshore Project would be from low to high -medium due to its appearance as a new element within the marine context rather than due to its scale.

18.7.2.1.4 Forss I & II

The CZTV (Figure 18.17) indicates that the main cumulative effects would be along the coastal area between Reay and Scrabster. Alongside the Forss I & II and Baillie WTGs, the area accommodates Dounreay NPDE and Vulcan NRTE which form the context in views from the A836. The Forss WTGs on the low coastal edge would be seen simultaneously with the offshore Project at Crosskirk, where the offshore Project would fill an undeveloped angle of the available view. In road views (A836) towards Forss, the offshore Project would be discernible at 34 km distance. Overall, the added cumulative magnitude of change attributable to the offshore Project would be from low-negligible to high-medium due to its appearance as a new element within the marine context rather than due to its scale. The Forss WTGs appear on cumulative wirelines of Viewpoints: VP6 (18.8 km), 8 (10.5 km), 9 (7 km), 10 (0.8 km), 16 (14 km), 19 (2.4 km), 20 (32.1 km), 23 (29.6 km).

18.7.2.1.5 Strathy North, Strathy Wood, Strathy South

This group of windfarms which are relatively close to the coast, to the south of Strathy Forest, are mainly visible in elevated views, where the offshore Project appears over 30 km distance, introducing a low magnitude of change. This is also reflected by the CZTV in Figure 18.18, showing a fragmented overlap with the ZTV of the offshore Project. The Strathy WTGs appear on cumulative wirelines of Viewpoints: VP2, 8, and 11.

18.7.2.1.6 Limekiln and Limekiln Extension

Although the CZTV (Figure 18.20, (SS19: SLVIA Figures) indicates that the main cumulative effects would be along the coastal area between Reay and Crosskirk, the Limekiln WTGs are difficult to view from these road views as they are well screened by the intervening small landforms. Limekiln is well screened in coastal views and effects attributable

to this development are related to the hinterland, with no visual interaction with the offshore Project. The Limekiln WTGs appear on cumulative wirelines of Viewpoints: VP6 and 8, where the added cumulative magnitude of change attributable to the offshore Project would be from low to high -medium.

18.7.2.2 Cumulative context summary

The offshore Project is located to the north / north-east / north-west in relation to the coast of Sutherland and Caithness and west / south-west in relation to the coast of Orkney. This location determines the viewing directions of the offshore Project from the coastal areas. At present, the sea does not accommodate any offshore windfarms, and therefore the offshore Project would appear in views as a new element within the sea context.

Sutherland does not accommodate any windfarms up to or as far as Strath Naver. In between Strath Naver and Strath Halladale the closest windfarms to the coast are two Bettyhill WTGs within the Rocky Hills and Moorland LCT (136) at 30 km from the offshore Project and 4 km distance from the coastal edge. Strathy North is located further inland to the south of Strathy Forest along with Strathy Wood and Strathy South, all of them being within the Sweeping Moorland and Flows (134) LCT, approximately 9 km from the coastal edge. Due to their hinterland location and the intervening topography these windfarms do not connect with the coastal area. The Strathy group is well identifiable in elevated views both in Sutherland and Caithness (see Viewpoint 2 and 8). Due to the location of the offshore Project being at a considerable distance from the coast and the intervening sea and coastal landforms buffer, the presence of these windfarms would not result in any cumulative effects with the offshore Project.

The Caithness coast accommodates several large-scale wind energy developments, including Forss I & II. To the west of Thurso, the Baillie WTGs are prominent in views towards the hinterland from the NC500 route (A836). Alongside the Forss group, the area accommodates Dounreay NPDE and Vulcan NRTE, developments which constitute the context in views from the A836 towards the Atlantic. Closer to Reay, to the west of Dounreay, the Limekiln WTGs would be visible from the NC500 route (A836) and across the coastal area in views inland. The other onshore developments are set back from the coast within the Farmed Lowland Plain LCT. The Caithness coast is at 30 km at its closest point from the offshore Project and as it extends eastwards the distance from the offshore Project increases in correlation. The offshore Project would not appear in simultaneous visibility with existing developments with the exception of the Forss group at Crosskirk, where the Forss WTGs would appear prominent in the views.

The offshore Project would add a distant element within an undeveloped seascape. However, due to the long distance, intervening topography and vast scale of sea context, the offshore Project would not interconnect with the operational / consented onshore windfarms. Simultaneous cumulative effects are only identified with Forss WTGs, which are located next to the coast, and both developments would be perceivable from the A836 and / or from the settlement of Crosskirk. Otherwise, the cumulative views are mainly sequential and / or successive, where the viewer has to change viewing direction in order to view another development.

Windfarm developments such as Stroupster, Stickly and Cogle Moss, which are located at the south-east end of the study area, are at least 52 km distance from the offshore Project are most visible from Dunnet Head, although not simultaneously with the offshore Project, which is over 40 km distance from the headland. Therefore, the cumulative effects attributable to the offshore Project in relation to these windfarms are limited.

The group of windfarm developments (Halsary, Bad a Cheo, Causeymire) which are located at the south-east end of the study area, are at least 55 km distance from the offshore Project and 25 km distance from the north coast. These

windfarms are closer to the Moray Firth than the Pentland Firth. Therefore, the cumulative effects attributable to the offshore Project in relation to these windfarms are limited. The windfarms located on the eastern part of the Orkney Mainland (e.g. Weydale Farm) are set back from the west coast, all being at least 44 km from the offshore Project, where there is no visibility of the offshore Project. Therefore, the cumulative effects attributable to the offshore Project in relation to these windfarms are limited. Hoy Community Farm would be theoretically visible from Dunnet Head and from along the coast across the Pentland Firth. Also, in these views the offshore Project would be over 40 km and would not appear in combined visibility with the operational Hoy Community windfarm.

18.7.3 Cumulative seascape, landscape and visual effects with windfarms in application stage

The cumulative assessment considers the additional effect of the offshore Project, assuming that all other developments including operational, under construction, consented, or application, are present. The developments in planning, which are considered in the cumulative assessment in addition to the developments which are part of the baseline, are listed in Table 18-45. Their locations are shown on Figure 18.6 (SS19: SLVIA Figures).

CZTVs have been produced to identify the cumulative visibility of the offshore Project with other windfarms which are expected to contribute to a significant cumulative effect when consented. These include (SS19: SLVIA Figures):

- PFOWF CZTV Figure 18.12;
- Cairnmore Hill CZTV Figure 18.19;
- Kirkton CZTV Figure 18.19;
- Forss III CZTV Figure 18.17; and
- Armadale CZTV Figure 18.14.

18.7.3.1.1 Pentland floating offshore windfarm (PFOWF)

At the time of the assessment, the PFOWF was yet to be consented, and therefore, the assessment is based on PFOWF being at the application stage[56].

The CZTV (Figure 18.12 (SS19: SLVIA Figures) indicates that the main cumulative visibility would occur along the coastal area of Caithness in between Thurso and Strathy Point. This offshore development introduces large floating WTGs (max tip height is 300 m HAT) close to the shore and would be prominently visible in between Strathy Point and Dunnet Head. Within this section the offshore Project would appear behind PFOWF, both in views from the A838 and settlements such as Reay, Crosskirk, Portskerra and Melvich. As the coastline already accommodates Forss I & II

[56]*At the time of writing, PFOWF was yet to be consented and therefore, the cumulative effects assessment is based on PFOWF being at the application stage. PFOWF will incorporate the currently consented Pentland Floating Offshore Wind Demonstrator turbine, and hence PFOWF only has been considered. The PFOWF Section 36 Consent and Marine Licence was recently granted for 10 years. However, the cumulative effects assessment has been based on the Project Design Envelope, as specified within the EIA, and therefore, an operational life of up to 30 years for the PFOWF has been considered. Since consent was granted in June 2023, PFOWF have submitted a Screening Report to MD-LOT with the intention to request a variation to the Section 36 Consent. This variation will incorporate refinements to the Project Design Envelope and to extend the operational life to 25 years.*

and Baillie WTGs, and Dounreay NPDE and Vulcan NRTE, the magnitude of change of the PFOWF would be high. The added cumulative magnitude of change attributable to the offshore Project would be reduced and seen as a subsidiary distant element behind the PFOWF. The offshore Project is 22 km from the PFOWF. Their appearance in views therefore differs as the offshore Project would be seen within the vast seascape whereas the PFOWF would appear in association with the coastal edge. The PFOWF WTGs appear on cumulative wirelines of Viewpoints: VP6, 8,9, 10, 12,16, 19, 20, 23. The magnitude of change attributable to the offshore Project would be from low-negligible to medium.

18.7.3.1.2 Cairnmore Hill

These WTGs would occupy an elevated and prominent position on the coastal edge to the west of Thurso, adding to windfarm development visibility within the wider seascape and coastal landscape, alongside the Forss and Baillie WTGs. The CZTV (Figure 18.19, SS19: SLVIA Figures) illustrates widespread visibility across the coast of Caithness. The Cairnmore Hill WTGs appear on cumulative wirelines of Viewpoints: VP6, 8, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23, 25. Although being prominently positioned, the development would not be visible simultaneously with the offshore Project. Having an overall limited interaction, the additional magnitude of change attributable to the offshore Project would be from low-negligible to medium.

18.7.3.1.3 Kirkton

This windfarm is located 2.4 km to the east of the Strathy group and would be visible from elevated locations in sequential distant views with the offshore Project. The CZTV (Figure 18.19, SS19: SLVIA Figures) demonstrates that coastal visibility of the Kirkton WTGs would be limited by topography. The added magnitude of change attributable to the offshore Project would be from negligible to medium. The Kirkton WTGs appear on cumulative wirelines of Viewpoints: VP8, 11.

18.7.3.1.4 Forss III

The proposed large WTGs of Forss III would merge with the existing Forss I & II. The additional effects attributable to the offshore Project would reduce when appearing in the established context of WTGs in coastal views. Overall, the added cumulative magnitude of change attributable to the offshore Project would be from low-negligible to medium due to its appearance as a new element within the marine context rather than due to its scale. The Forss III WTGs appear on cumulative wirelines of Viewpoints: VP6, 8, 9, 10, 16, 19, 20, 23.

18.7.3.1.5 Armadale

The proposed Armadale WTGs within the Rocky Hills and Moorland LCT would be well screened by topography in views from the coastal edge. The CZTV (Figure 18.14, SS19: SLVIA Figures) indicates that the main cumulative visibility would be along the coastal area between Armadale and Strathy. These WTGs to the north of Strathy North would appear close to the coast, but with no visual interaction with the offshore Project. The Armadale WTGs appear on cumulative wirelines of Viewpoints: VP2, 3, 8 and 11. The most notable magnitude of change would be related to Armadale village, where the Armadale WTGs would appear as prominent elements in the proximity. The addition of the offshore Project would fill part of the undeveloped angle of the distant sea horizon. However, views are orientated to the north east towards Strathy Point, which would be undisturbed by the offshore Project. Overall, the added cumulative magnitude of change attributable to the offshore Project would be from negligible-low and medium-low at Armadale village.

18.7.3.2 Conclusions

The future cumulative context would potentially bring in Forss III with larger onshore WTGs and Cairnmore Hill onshore WTGs just 4 km to the south-east of Forss. Approximately 9 km to the northwest of Forss, the PFOWF would be present which would intensify the cumulative coastal scene and would also introduce an offshore development closer to the coast. With this change the additional cumulative effects attributable to the offshore Project would be reduced in views from Caithness, where the offshore Project would appear behind the PFOWF WTGs and shipping lines as a subsidiary and distant feature in the vast seaplane. Also the offshore Project has been well offset from the sightline between Caithness and Hoy, within which the prominence of the PFOWF features on the backdrop of Hoy, especially in the view from Strathy Point.

It is therefore concluded that the scenario which includes application windfarms would be introduced mainly by the PFOWF which would affect the cumulative magnitude of change attributable to the offshore Project. As these effects would mainly occur in relation to the coastal area of Caithness, the cumulative assessment of the Application Scenario includes the assessment of cumulative effects arising from the offshore Project upon the seascape, landscape and visual receptors of Caithness only.

18.7.4 Cumulative assessment of application stage scenario

18.7.4.1 Cumulative effects on coastal character of Caithness during construction

The construction of the PFOWF[57] would potentially commence in 2024 and, as this would be carried out over a 5-year period, these would potentially occur concurrently with the offshore Project construction to a certain extent. Although not known, the construction period of Forss III, if consented, would also take place on the coastal edge. Clearly condensed development activities closer to the coast would take precedence over the more distant construction of the offshore Project, thereby reducing potential effects attributable to the offshore Project.

18.7.4.2 Cumulative effects on coastal character of Caithness during operation and maintenance

18.7.4.2.1 RCCA 47 Portskerra

The main assessment presented in section 18.6 concludes the sensitivity of this RCCA as Medium with a Low magnitude of change and the level of effect as Moderate / minor and not significant.

Kirkton onshore and PFOWF are relevant to the cumulative assessment along with the onshore baseline context provided by Limekiln and Baillie WTGs. As this stretch of coast has a north-west orientation over the Atlantic, the PFOWF would intervene prominently in these views. With the offshore Project located over 30 km from the coast and around 20 km further away from the PFOWF, an additional Low magnitude of change would be attributable due to

[57] *At the time of the assessment, the PFOWF was yet to be consented, and therefore, the assessment is based on PFOWF being at the application stage.*

the PFOWF which would form a prominent focus in proximity. The cumulative magnitude of change attributable to the offshore Project would be reduced in Viewpoints 9, 10 and 19, and in their north-west orientated views the offshore Project would be seen as a subsidiary and distant feature behind the PFOWF, which would add to the industrialisation of this coastal edge. It is considered that the overall cumulative magnitude of change would reduce to Low-negligible.

Evaluation of significance

Taking account of the Medium sensitivity and Low-negligible magnitude, the level of effect is therefore assessed as Minor and not significant in EIA terms. The nature of these effects would be cumulative, indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of Change	Level of Effect
Medium	Low-negligible	Minor

Significance of Effect - NOT SIGNIFICANT

18.7.4.2.2 RCCA 46 Brims Ness

The main assessment presented in section 18.6 concludes the sensitivity of this RCCA as Medium with a Low magnitude of change and the level of effect as Moderate / minor and not significant.

Forss III and Cairnmore Hill onshore windfarms and PFOWF are relevant to the cumulative assessment along with the onshore baseline context provided by Forss I&II, Limekiln and Baillie WTGs. As this stretch of coast has a north orientation over the Atlantic, the PFOWF would intervene prominently in views to the north-west. With the offshore Project located over 33 km distance from the coast and around 20 km distance further away from the PFOWF, an additional Low magnitude of change would be attributable due to Forss III, Cairnmore Hill and PFOWF forming a prominent focus in proximity. The magnitude of change attributable to the offshore Project would be reduced in Viewpoint 10. The offshore Project would appear as a subsidiary and distant feature as the focus would be on the PFOWF in association with the coastal landform. It is considered that the overall magnitude of change would reduce to Low-negligible.

Evaluation of significance

Forss III and Cairnmore Hill onshore windfarms and PFOWF are relevant to the cumulative assessment along with the onshore baseline context provided by Forss I & II, Limekiln and Baillie WTGs. As this stretch of coast has a north orientation over the Atlantic, the PFOWF would intervene prominently in views to the north-west. With the offshore Project located over 33 km from the coast and around 20 km further away from the PFOWF, an additional Low magnitude of change would be attributable due to Forss III, Cairnmore Hill windfarms and the PFOWF forming a prominent focus in proximity. The magnitude of change attributable to the offshore Project would be reduced in Viewpoint 10. The offshore Project would appear as a subsidiary and distant feature as the focus would be on the PFOWF in association with the coastal landform. It is considered that the overall magnitude of change would reduce to Low-negligible.

Taking account of the Medium sensitivity and Low-negligible magnitude, the level of effect is therefore assessed as Minor and not significant in EIA terms. The nature of these effects would be cumulative, indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of Change	Level of Effect
Medium	Low-negligible	Minor

Significance of Effect - NOT SIGNIFICANT

18.7.4.2.3 RCCA 45 Dunnet Bay and Thurso Bay

The main assessment presented in section 18.6 concludes the sensitivity of this RCCA as Medium with a Low-negligible magnitude of change and the level of effect as Minor / negligible and not significant.

Cairnmore Hill onshore and the PFOWF are relevant to the cumulative assessment, with the onshore WTGs occupying an elevated position and the offshore windfarm competing in terms of scale with that of the coastal landform. The offshore Project would be located 40 km from the coast. At this distance, mainly the upper hubs and blades would appear above the horizon which would be barely perceptible even in clear conditions. The overall magnitude of change would remain Low-negligible.

Evaluation of significance

Taking account of the Medium sensitivity and Low-negligible magnitude, the level of effect is therefore assessed as Minor / negligible and not significant in EIA terms. The nature of these effects would be cumulative, indirect, long-term (reversible) and adverse.

Sensitivity	Magnitude of Change	Level of Effect
Medium	Low-negligible	Minor / negligible

Significance of Effect - NOT SIGNIFICANT

18.7.4.2.4 RCCA 44 Scarfskerry and Dunnet Head

The main assessment presented in section 18.6 concludes the sensitivity of this RCCA as Medium with a Low-negligible magnitude of change and the level of effect as Minor / negligible and not significant.

Panoramic vistas from Easter Head on the Dunnet Head peninsula overlooking the Pentland Firth and the open Atlantic. The PFOWF is relevant to the cumulative assessment, forming the foci in views of the coastal edge to the west. The offshore Project would be located over 40 km. Due to the long intervening distance involved it would be barely perceptible even in clear conditions. The overall magnitude of change would reduce to Negligible.

Evaluation of significance

Taking account of the Medium sensitivity and Negligible magnitude, the level of effect is therefore assessed as **Negligible** and **not significant** in EIA terms. The nature of these effects would be cumulative, indirect, long-term (reversible) and adverse to neutral.

Sensitivity	Magnitude of Change	Level of Effect
Medium	Negligible	Negligible

Significance of Effect - NOT SIGNIFICANT

18.7.4.3 Cumulative effects on Highland Special Landscape Areas

18.7.4.3.1 Dunnet Head SLA

The main assessment presented in section 18.6 concludes the sensitivity of this SLA as High with a Low magnitude of change and the level of effect as Moderate / minor and not significant.

There are panoramic vistas from Easter Head at the Dunnet Head peninsula overlooking the Pentland Firth and the open Atlantic. The PFOWF has relevance to the cumulative assessment, forming the foci in views of the coastal edge to the west. The offshore Project would be beyond 40 km. Due to the long intervening distance, the offshore Project, would not impinge on views towards the headland from the east and west or the expansive panorama seen from Dunnet Head itself neither would it disrupt the gentle curve of Dunnet Bay and its qualities of seclusion. It would not compromise the perceived large scale of the Headland and the peninsula's distinctive landmark qualities. The overall magnitude of change would reduce to Low-negligible.

Evaluation of significance

Taking account of the High sensitivity and Low-negligible magnitude, the level of effect is therefore assessed as **Minor** and **not significant** in EIA terms. The nature of these effects would be cumulative, indirect, long-term (reversible) and adverse to neutral.

Sensitivity	Magnitude of Change	Level of Effect
High	Low - negligible	Minor

Significance of Effect - NOT SIGNIFICANT

18.7.4.4 Cumulative effects on views and visual amenity - Caithness

18.7.4.4.1 Settlements

The following Table 18-46 identifies cumulative effects attributable to the offshore Project in addition to the operational, under construction, consented and other application windfarm developments upon settlements on the coast of Caithness.

Table 18-46 Settlements on the coast of Caithness

SETTLEMENT	DISTANCE / DIRECTION FROM OAA	DESCRIPTION	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
Reay (includes Core Paths around settlement and golf course and Sandside Bay)	34 km / NW	Properties to the north of the A838 which have their rear gardens and elevations facing north (and northern Core Paths, golf course and Sandside Bay) would have potentially distant and partially filtered visibility of the south-eastern array of the offshore Project. Visible presence of Forss and Baillie WTGs in the area. If consented, the PFOWF WTGs would appear as the main foci in the view.	Low	Moderate / minor
Buldoo	34 km / NW	These are mainly scattered farm properties which would potentially see the offshore Project within a vast sea plain in distant views where the Dounreay NRTE would appear in the foreground of these views. Baillie WTGs appear in close views to the south. If constructed, the PFOWF WTGs would appear as the main foci in the view.	Negligible	Minor / negligible
Crosskirk (includes Core Paths west of settlement)	34 km / NW	From the scattered properties and a Core Path, the offshore Project would appear in the distance on the sea horizon in a combined view with Forss WTGs and North Point Distillery. If constructed the PFOWF WTGs would appear close to the Forss WTGs in the view.	Medium-low	Moderate
Murkle	42 km / NW	The Cairnmore Hill WTGs would appear on top of the landform to the west. Views to the north-west towards the offshore Project are contained by the intervening shallow landform of Clardon Hill. The WTGs on the eastern end of the south-east array would barely be perceptible at over 42km distance. If constructed the PFOWF WTGs would appear close to the Forss WTGs in the view.	Negligible	Minor / negligible

18.7.4.4.2 Transport routes

The cumulative assessment of the A836 in Caithness is included as part of the North Coast 500 route further below due to the overlap of the two routes.

18.7.4.4.3 Recreational and ferry routes

The following table identifies cumulative effects attributable to the offshore Project in addition to the operational, under construction, consented and application windfarm developments upon main recreational and ferry routes on the coast of Caithness.

Table 18-47 Recreational and ferry routes on the coast of Caithness

	DISTANCE / DIRECTION TO OAA	DESCRIPTION	MAGNITUDE OF CHANGE	LEVEL OF EFFECT
The North Coast 500 (overlapped with the A836 and Sustrans National Cycle Route 1)	27 km N	To the east of Sandside Bay / Reay extends a Farmed Lowland Plain. The coastline reduces in height, allowing for clear and uninterrupted views of the sea. The offshore Project would be visible simultaneously with the Forss group and PFOWF close to Crosskirk. The magnitude of change attributable to the offshore Project would be reduced due to its appearance as a subsidiary distant feature behind the PFOWF, which would add to the industrialisation of this coastal edge.	Low	Moderate
Ferry Route between Scrabster and Stromness	24.4 km W	When approaching the Hoy Sound and passing the Old Man of Hoy at 1.5 km, the ferry would be 26.4 km from the western side of the offshore Project. The main visual attraction of the route is the impressive cliff profile of Hoy, in views of which the offshore Project would not intervene. It should be also considered that the HFoV occupied by the closest visible WTGs up to 35 km is 28 degrees. The WTGs in the background gradually become less visible. On approaching Scrabster the Forss group WTGs are seen on the backdrop of the coastal landform, and several Limeklin WTGs would be distinguishable above the shallow coastal landform. Windfarms in planning such as Forss III and Cairnmore Hill and the PFOWF would appear more prominent on the approach to Scrabster, due to the linear nature of the route and the magnitude of change attributable to the offshore Project along this section of the route would be reduced.	Medium to negligible	Major / moderate (significant) (towards Stromness) to Negligible

It is acknowledged that the assessment has concluded that some impacts are potentially significant in EIA terms. Further information on secondary mitigation that will be implemented is provided in 18.11.

18.7.4.4.4 Visitor destinations – Caithness

The cumulative effects of the offshore Project on the following visitor destinations are assessed as part of the viewpoint assessment in SS16: Viewpoints Assessment):

- Reay Golf Course and Sandside Bay (represented by viewpoint 9);
- St Mary's Chapel, Crosskirk (represented by viewpoint 10);
- Dunnet Bay and Caravan Park (represented by viewpoint 12);
- Dunnet Head (represented by viewpoint 13); and
- Castle of Mey Garden and Designed Landscape (represented by viewpoint 14).

18.8 Inter-related effects

Inter-related effects are the potential effects of multiple impacts, affecting one receptor or a group of receptors. Inter-related effects include interactions between the impacts of the different stages of the offshore Project (i.e. interaction of impacts across construction, operation and maintenance and decommissioning), as well as the interaction between impacts on a receptor within an offshore Project stage. Receptor led effects (i.e. those that interact, spatially and temporally, to create inter-related effects on a receptor) will not occur on seascape, landscape and visual receptors, since changes are experienced by the same receptor in each case (people) and in one way (visually) at one point in time, therefore effects on views and on perceived character are inter-linked, and do not interact to produce a different, or greater effect, on a receptor than when effects are considered in isolation.

18.9 Whole Project assessment

The onshore Project is summarised in chapter 5: Project description and a summary of the effects of the onshore Project is provided in chapter 21: Onshore EIA summary. These onshore aspects of the Project have been considered in relation to the impacts assessed in section 18.6. The findings are presented below.

There are no potential effects on visual amenity associated with the presence of the onshore substation (including the underground onshore cable corridor) and the offshore Project on the basis that due to the distance of the substation from the coast (approximately 18 km from the landfall area and approximately 12 km from nearest coastal location) there are no locations where it is possible to see both the offshore Project and the substation at the same time.

There is a spatial overlap between the offshore Project and the onshore Project at the landfall. It is possible that offshore Project construction (presence of construction and cable lay vessels) would be visible concurrently with construction activities at the landfall. Any effects would be short term, localised and temporary in nature during construction only. Construction of the offshore export cable will have limited influence on seascape, landscape and visual receptors due to temporary nature of above sea construction processes. The activities mainly occur from vessels, which are already an apparent component of the baseline seascape and views. Effects of construction of the

cable landfall at Crosskirk and Greeny Geo are assessed as part of the onshore LVIA in chapter 17: Landscape and visual impact assessment. The offshore cables will be located below the sea surface and will not be visible as part of the seascape or views once operational. Therefore, the offshore cables will have no operational effect on seascape, landscape and visual receptors.

18.10 Transboundary effects

Transboundary effects arise when impacts from a development within one European Economic Area (EEA) state's territory affects the environment of another EEA state(s).

The offshore Project is located over 400 km from the coastline of the nearest EEA member state (Norway). There would be no theoretical visibility of the offshore Project beyond approximately 75 km due to the effects of earth curvature, which would effectively 'hide' the WTGs behind the horizon at this distance[58].

There is no potential for transboundary impacts upon SLVIA receptors due to construction, operation and maintenance and decommissioning of the offshore Project. The potential impacts are localised and are not expected to affect other EEA states. Therefore, transboundary effects for SLVIA receptors do not need to be considered further, since there is no potential for significant effects at such long distance; the coastline of other EEA member states is outside the SLVIA study area and would have no visibility of the offshore Project during construction, operation and maintenance and decommissioning.

18.11 Summary of mitigation and monitoring

The assessment of effects on seascape, landscape and visual receptors has predicted effects resulting from the presence of the offshore Project ranging from negligible to major / moderate. The assessment has been based upon the worst case scenario and it is anticipated that effects will be less than predicted.

Policy 11 (e) of NPF4 states that '*In addition, project design and mitigation will demonstrate how the following impacts are addressed: ii. significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/ or appropriate design mitigation has been applied, they will generally be considered to be acceptable.*'

It is acknowledged that traditional methods of landscape and visual mitigation, such as screen planting, are ineffective for offshore windfarm development. Mitigation for windfarms is generally limited to the reduction of potential effects through detailed layout design. As such secondary mitigation will be implemented in the form of the iterative design process during the post-consent development of the DSLP. The overall objective of the DSLP will be to set out the final design and layout parameters associated with the final design of the offshore Project. The DSLP will confirm that the design and layout parameters of the offshore Project align with those consented.

[58] Whilst the Faroe UK median line represents the closest international boundary (approximately 144 km north of the offshore study area), the Faroe Islands are not part of the EEA and do not need to be considered under EIA Regulations.

Post-consent additional pre-construction surveys and site investigations will be completed (as per chapter 5: Project description). This will allow the development of the ground model and further engineering studies to progress. The results of the pre-construction surveys will be shared with MD-LOT and relevant Statutory Nature Conservation Bodies (SNCBs) (including Local Planning Authorities), and the implications on the Project design discussed, including the consideration of key SLVIA receptors as well as other constraints such as shipping and navigation. Following consultation the final design of the offshore Project will be produced and secured within the DSLP.

The DSLP(s) will present information on:

- Layout and specification of WTGs– spacing, dimensions, identification / numbering, co-ordinates, generating output, finishes, foundation type, bathymetry and seabed conditions, key constraints;
- Inter-array cables length and arrangement;
- OSP layout and specification – finishes, foundation type, bathymetry and seabed conditions, key constraints;
- Interconnector cables length and arrangement; and
- Export cables length and proposed arrangement.

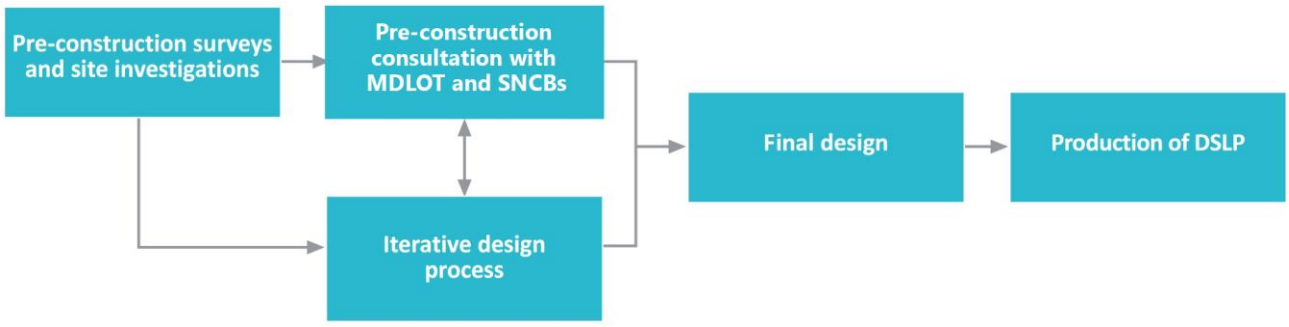

Figure 18-6 Development process for the production of the DSLP post-consent

Certain design objectives have been identified at this stage and will be considered when refining the final layout, these include:

- Visually balanced layout;
- Avoidance of any outliers (WTGs or OSPs etc.);
- Off-set grid pattern preferred over a regular grid;
- Avoid splitting the array - one larger array preferred over two or more independently appearing developments;
- Regular spacing between WTGs and other structures preferred;
- Locate associated infrastructure and platforms within the overall array rather than on the outer edges; and
- Minimum spacing requirements used to reduce overall footprint and spread of WTGs.

The mitigation of seascape, landscape and visual effects will continue through the post-consent design process which is anticipated to reduce the levels of the identified effects.

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18.13 Abbreviations

ACRONYM	DEFINITION
AESLQ	Assessing the Effects on Special Landscape Qualities
AOD	Above Ordnance Datum
BEIS	Business, Energy and Industrial Strategy
CAA	Civil Aviation Authority
Cd	Candela
CLVIA	Cumulative Landscape and Visual Impact Assessment
CZTV	Cumulative Zone of Theoretical Visibility
DPO	Draft Plan Option
DSLP	Development Specification and Layout Plan
ECC	Export Cable Corridor
EEA	European Economic Area
EIA	Environmental Impact Assessment
ELC	European Landscape Convention
HFoV	Horizontal Field of View
IEMA	Institute of Environmental Management and Assessment
GDL	Gardens and Designed Landscapes
GLVIA 3	Guidelines for Landscape and Visual Impact Assessment, Third Edition, published jointly by the Landscape Institute and Institute of Environmental Management and Assessment, 2013.
HoNo WHS	Heart of Neolithic Orkney World Heritage Site

ACRONYM	DEFINITION
HwLDP	Highland Wide Local Development Plan
Km	Kilometre
LCA	Landscape Character Assessment or Landscape Character Area
LCT	Landscape Character Type
LDP	Local Development Plan
LPA	Local Planning Authority
LVIA	Landscape and Visual Assessment
M	metre
MD-LOT	Marine Directorate – Licensing Operations Team
MoD	Ministry of Defence
MW	Megawatt
MHWS	Mean High Water Springs
NMP	National Marine Plan
NMPi	National Marine Plan Interactive
NPF	National Planning Framework
NPS	National Policy Statement
NRW	Natural Resources Wales
NSA	National Scenic Area
OAA	Option Agreement Area

ACRONYM	DEFINITION
OESEA	Offshore Energy Strategic Environmental Assessment
OIC	Orkney Islands Council
OIRMP	Orkney Islands Regional Marine Plan
ORCA	Orkney Research Centre for Archaeology
OS	Ordnance Survey
OWESG	Onshore Wind Energy Supplementary Guidance
PFOWF	Pentland Floating Offshore Wind Farm
PFOW MSP	Pentland Firth and Orkney Waters Marine Spatial Plan
RCAA	Regional Coastal Character Area
RoRo	Roll on – Roll off
SAR	Search and Rescue
SEA	Strategic Environmental Assessment
SNCBs	Statutory Nature Conservation Bodies
SNH	Scottish Natural Heritage
SLA	Special Landscape Area
SLQ	Special Landscape Qualities
SLVIA	Seascape, Landscape and Impact Visual Assessment
SNH	Scottish National Heritage (now NatureScot)
THC	The Highland Council

ACRONYM	DEFINITION
UNESCO	United Nations Educational, Scientific and Cultural Organization
USB	Universal Serial Bus
UXO	Unexploded Ordnance
WLA	Wild Land Area
WTG	Wind Turbine Generator
WHS	World Heritage Site
ZoI	Zone of Influence
ZTV	Zone of Theoretical Visibility

18.14 Glossary

Note: Those descriptions marked with an asterisk are as per the terminology provided in the GLVIA3 glossary.

TERM	DEFINITION
Atmospheric perspective	Refers to the phenomenon of colours and contrasts shifting as things recede into the distance.
Coastal character Area	A Coastal Character Area is a distinct, recognisable, geographical area which has a consistent overall character. Coastal character can be identified at different scales: RCCA at a strategic level (e.g., a loch within a larger system, a stretch of coastline or a whole island) or Local (shorter stretches of coast or shore).
Designated landscape*	Areas of landscape identified as being of importance at international, national or local levels, either defined by statue or identified in development plans or other documents.
Indirect effects*	Direct effects relate to the host landscape and concern both physical and perceptual effects on the receptor. Indirect effects relate to those landscapes and receptors which separated by distance from the development and therefore are only affected in terms of visual or perceptual effects. The Landscape Institute also defines indirect effects as those which are not a direct result of the development but are often produced away from it or as a result of a complex pathway.
Key characteristics*	Those combinations of elements which are particularly important to the current character of the landscape and help to give an area its particularly distinctive sense of place.
Landscape character*	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Landscape Character Area (LCA)*	These are single unique areas which are the discrete geographical areas of a particular landscape type.
Landscape Character Types (LCTs)*	These are distinct types of landscapes that are usually homogenous in character. They are generic in nature in that they may occur in different areas in different parts of the country, but wherever they occur they share broadly similar combinations of geology, topography, drainage patterns, vegetation and historical land use and settlement pattern, and perceptual and aesthetic attributes. (Topic Paper 6, Countryside Agency and SNH 2004).
Landscape effects*	Effects on the landscape as a resource in its own right.
Landscape quality (condition)*	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and the condition of individual elements.
Landscape receptors *	Defined aspects of the landscape resource that have the potential to be affected by a proposal.

TERM	DEFINITION
Landscape value*	The relative value that is attached to different seascape and/or landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons.
Magnitude (of effect)*	A term that combines judgements about the size and scale of the effect, the extent of the area over which it occurs, whether it is reversible or irreversible and whether it is short or long term, in duration.
Seascape	Landscapes with views of the coast or seas, and coasts and the adjacent marine environment with cultural, historical and archaeological links with each other. (HM Government, Northern Ireland Executive, Scottish Government and Welsh Assembly Government, 2011 and Marine Management Organisation, 2019a). It comprises the visual and physical conjunction of land and sea which combines maritime, coast and hinterland character (Grant, 2005).
Sensitivity*	A term applied to specific receptors, combining judgements of the susceptibility of the receptor to the specific type of change or development proposed and the value related to that receptor.
Special qualities	The characteristics that, individually or combined, give rise to an area's outstanding scenery. (NatureScot) For NSA, these have been identified in work by NatureScot and Historic Environment Scotland.
Susceptibility*	The ability of a defined seascape, landscape or visual receptor to accommodate the specific development without undue negative consequences.
Visual amenity*	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of people living, working, recreating, visiting or travelling through an area.
Visual effect*	Effects on specific views and on the general visual amenity experienced by people. (Landscape Institute and IEMA, 2013)
Visual receptors*	Individuals and/or defined groups of people who have the potential to be affected by a proposal.
Visual sensitivity	The sensitivity of visual receptors such as residents, relative to their location and context, to visual change proposed by development.
Visualisation	Computer visualisation, photomontage, or other technique to illustrate the appearance of the development from a known location.
Wireline	A computer-generated line drawing of the Digital Terrain Model (DTM) and the offshore Project from a known location.

TERM	DEFINITION
Zone of Theoretical Visibility (ZTV)*	A map, usually digitally produced, showing areas of land within which, a development is theoretical visible.