

Pentland floating offshore wind farm

Volume 3: Appendix A.16.3

Assessment of Effects on the Special
Landscape Qualities of Kyle of Hoy and
West Mainland National Scenic Area



OFFSHORE EIAR (VOLUME 3): TECHNICAL APPENDICES

APPENDIX 16.3: ASSESSMENT OF EFFECTS ON THE SPECIAL

LANDSCAPE QUALITIES OF HOY AND WEST MAINLAND

NATIONAL SCENIC AREA

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APPENDIX 16.3: ASSESSMENT OF EFFECTS ON THE SPECIAL LANDSCAPE QUALITIES OF HOY AND WEST MAINLAND NATIONAL SCENIC AREA

1.1 Introduction

This Appendix contains the assessment of effects on the Special Landscape Qualities (SLQs) of the Hoy and West Mainland National Scenic Area (NSA). It follows guidance set out in NatureScot's Working Draft 11 entitled 'Guidance for Assessing the Effects on Special Landscape Qualities' (SLQs) (Scottish Natural Heritage, 2018). The guidance is aimed specifically at landscape professionals undertaking Landscape and Visual Impact Assessments (LVIA) for developments or land use changes with potential to impact on the SLQs of NSAs or National Parks (NP).

The following figures are of particular relevance to the assessment of effects on the NSA and have been used in the assessment process. All SLVIA figures are presented in Appendix 16.9: SLVIA Figures.

- > Figure 16.4: Landscape Designations and Wild Land Area;
- > Figure 16.11: Landscape Designations and Wild Land Area with Zone of Theoretical Visibility (ZTV);
- > Figures 16:39 and 16.55: Viewpoint 9: Footpath to Old Man of Hoy;
- > Figures 16:45 and 16.61: Viewpoint 15: Ward Hill, Hoy; and
- > Figures 16:46 and 16.62: Viewpoint 16: Tor Ness, Hoy.

The draft guidance presents an approach that is intended to be "*proportionate to the scale and stage of the development, be clear and transparent so that the reasoning that informs judgements can be tracked and convey the complexity of effects*". It sets out a four-step approach presented in the associated Pro Forma under the following four headings;

- > Step 1: The Proposal – gain as full an understanding of the proposal as possible.
- > Step 2: Definition of the Study Area and Scope of the Assessment - identifying the area likely to be affected.
- > Step 3: The Analysis of Impacts and Effects on SLQs.
- > Step 4: Summary of Impacts on the SLQs, implications for the NSA/NP and possible future effects on SLQs and recommendations for mitigation.

1.2 Role of NSAs

NSA is a conservation designation used in Scotland and administered by NatureScot (previously Scottish Natural Heritage (SNH)). The designation's purpose is to identify areas of exceptional scenery and to protect them from inappropriate development. NSAs were first established in 1980, under planning legislation, by order of the Secretary of State. Part 10 of the Planning etc. (Scotland) Act 2006 gave NSAs a statutory basis. The Town and Country Planning (National Scenic Areas) (Scotland) Designation Directions 2010 then brought this into force. In December 2010, NSAs were designated under this new legislation.

Scottish Planning Policy (SPP) is a statement of Scottish Government policy on how nationally important land use planning matters should be addressed. With regard to National Designations, Paragraph 212 of SPP states that:

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

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

The role of this assessment is to provide an appropriate level of information to enable decision makers and consultees to reach a conclusion regarding the potential effects on the qualities of the Hoy and West Mainland NSA.

This assessment is carried out with specific reference to the effect that the Offshore Development may have on the 'special qualities' of the NSA. In 'Guidance for Identifying the Special Qualities of Scotland's National Scenic Areas' (SNH, 2008), SLQs are defined as *"the characteristics that individually, or when combined together, make an NSA special in terms of landscape and scenery."* The special qualities of the Orkney – Hoy and West Mainland NSA are documented in two reports: 'Scotland's Scenic Heritage' (Countryside Commission for Scotland, 1978), and 'Special Qualities of the Orkney – Hoy and West Mainland NSA (SNH, 2010), which supersedes the 1978 report.

1.3 Step 1: The Proposal

The aim of Step 1 is to *"gain as full an understanding of the proposal as possible"* by setting out the key aspects of the proposal that have potential to affect the SLQs.

The Offshore Development will comprise wind turbine generators (WTGs) installed on floating substructures, which will be wholly located within the extent of the array area. The Offshore Development is represented by a design envelope and within this an indicative development is shown which is designed to constitute the worst-case scenario in terms of dimensions and layout. In respect of the SLVIA the worst-case scenario comprises seven WTGs, each with a blade tip height of up to a maximum of 300 m above Highest Astronomical Tide (HAT) and set on floating substructures which will be up to 30 m above HAT.

The Hoy and West Mainland NSA is located approximately 32 km to the north-east of the closest WTG of the Offshore Development. The NSA covers the northern part of Hoy, the south-western part of Orkney Mainland and the small island of Graemsay. The ZTV in Figure 16.11 shows theoretical visibility to occur across western and central parts of Hoy and western parts of Orkney Mainland as well as across the seascape to the west of West Mainland and south-west of Hoy.

The Offshore Development could potentially affect the SLQs of the Hoy and West Mainland NSA owing principally to visibility of the offshore wind WTGs and floating substructures. These components will be located in the Pentland Firth and be seen against the backdrop of the Mainland of Scotland. Although there are currently no operational offshore wind farms in the Pentland Firth there are proposals to develop in this area, and there are a number of operational and proposed onshore wind farms on the Mainland of Scotland.

1.4 Step 2: Definition of the Study Area and Scope of the Assessment

The aim of Step 2 is to identify the extent of the area likely to be affected through consideration of the location of the NSA relative to the Offshore Development, the extent to which the Offshore Development will alter the NSA, in this case as a result of its visibility only, and how it will affect people's experience of the NSA from, both, within and outwith the NSA boundaries.

1.4.1 Location of the NSA Relative to the Offshore Development

The Orkney – Hoy and West Mainland NSA covers the northern half of the Island of Hoy and the south-western corner of the Mainland of Orkney, with the designated area extending out to cover the island of Graemsay, as well as parts of the surrounding seascapes of all these islands. Mainland Orkney is the largest of the Orkney Islands and the south-west part, that is covered by the NSA designation, includes the coastal settlement of Stromness and the relatively low-lying and settled surrounding landscape. This area also includes the Loch of Stenness and the archaeological features of Ring of Brodgar and Maes Howe. Hoy is the second largest of the Orkney Islands. Hoy lies to the south-west of the Mainland of Orkney and is most famous for the dramatic cliffs around its western coast, including the famous stack 'The Old Man of Hoy'. Hoy is the hilliest of the Orkney Islands, with the Rugged Hills LCT in the north rising to high points of 479 m and 433 m AOD. Moorland Hills LCT covers the central and southern inland area of the island, with the hills gradually falling in height from high points of 399 m AOD in the north to 101 m AOD in the south.

The Offshore Development lies a minimum distance of approximately 32 km from the closest western edge of the NSA. The Offshore Development will, therefore, have no direct effects on the NSA. The ZTV in Figure 16.11 shows theoretical visibility to occur in localised patches mostly concentrated in the western parts of the NSA, albeit with some extending into the central parts where higher land occurs and out across the coastal seascapes to the west and south-west.

1.4.2 Potential for Cumulative Effects

The potential for cumulative effects to arise relates principally to the interactions of the Offshore Development with the operational, under construction, consented and application stage onshore wind farms, as well as the future proposed offshore West Orkney Offshore Wind Farm. The locations of the onshore cumulative wind farms are shown in Figure 6.16. Those closest to the NSA include the consented Hoy Wind Farm, approximately 6 km to the south of the southern NSA boundary and operational Hammars Hill and Burgar Hill wind farms, a minimum of approximately 4 km and 6 km to the north-east. There are also a number of smaller scale operational turbines on Hoy, Flotta and the Mainland of Orkney and larger operational wind farms on the Mainland of Scotland.

In light of these and other proposed developments, there is the potential for a significant cumulative effect to arise across various parts of the NSA, and for that reason the whole of the NSA has been considered in the assessment in Section 1.5.4.

1.4.3 Potential for Night-time Effects

The potential for night-time effects relating to the aviation and maritime navigational lighting on the WTGs will be limited owing to the minimum distance of 32 km between the Offshore Development and the closest boundary of the NSA. The Night-time Assessment is presented in Appendix 16.6 which includes the methodology applied and the scope of the assessment in terms of the lighting requirements. The maximum design scenario considers aviation lighting set on the hubs of the seven WTGs at a height of 170 m, and with a blade tip height of 300 m. The lights will emit a flashing red light of medium intensity, measured as 2,000 candelas (cd). The lights will carry a detection system responding to atmospheric conditions, such that when visibility is greater than 5 km the intensity of the lights will be reduced to 10% of their maximum intensity, which equates to 200cd. Met office data recorded at Wick (see Appendix 16.8) suggests that visibility of >5 km occurs 94% of the time around the north coast of Scotland although this may be slightly less frequent out over the sea due to higher moisture content. However, when visibility is less than 5 km the weather conditions will also act to reduce the intensity of the lights when viewed from the more distant areas. Therefore, for the purposes of the assessment, the light reaching the NSA is assumed to be 200 cd or less. Despite the clear justification for this approach, NatureScot has requested that the assessment be carried out on the basis that the light reaching the NSA would be 2,000 cd.

The Hub Lighting ZTV in Figure 16.30 shows the limited extents of the NSA from which the aviation lighting associated with the Offshore Development would be visible, with patches of visibility occurring around the north-west coastline of Hoy, and then in patches on the south-west facing slopes of the High Hills of Hoy and in small patches on the west coast of West Mainland, all occurring at distances between 33 and 50 km and over closer patches of sea at distances from 33 km.

While there is potential for night-time lighting to be visible from the NSA, the intensity of the lights as experienced over such distances, even considering the 2,000 cd intensity, combined with the limited extents from which they will be visible, will limit their influence on the NSA. The effects of the night-time lighting on the SLQs are, therefore, not considered further in the assessment.

1.4.4 Summary of Step 2

The Hoy and West Mainland NSA covers a relatively small area and despite the distant nature and limited extents of visibility, the spread of theoretical visibility across various parts of the NSA means that the whole of the NSA has been considered in the assessment in Section 1.5.4. The NSA covers a predominantly settled and farmed landscape, where human influences occur, albeit typically small in scale and rural in character within the NSA and with larger scale existing and proposed developments outwith. There are also more remote and uninhabited parts to the south of the NSA, which coincide with the high hills of Hoy. The scope of the assessment considers the cumulative effects with other large-scale developments, as well as the night-time effects of navigational lighting on the WTGs.

1.5 Step 3: Analysis of Effects on the Special Landscape Qualities

Step 3 sets out the assessment of effects on the NSA that will potentially arise as a result of the Offshore Development. Within Step 3, the following four key considerations are made;

- > Identify those SLQs with potential to be affected;
- > Establish the key landscape characteristic that underpin the SLQs;
- > Assess the effects of the Development on the relevant SLQs; and
- > Consider the potential for mitigation and determine the level of effect.

Table 1.5-1 sets out a preliminary assessment to identify those SLQs with potential to be affected by the Offshore Development. Table 1.5-2 then establishes the key characteristics that underpin the SLQs with reference to NatureScot's NSA citation and Landscape Character Assessment, with information supplemented with the experiences of the assessor gained through site work. Table 1.5-2 also sets out the effects that all relevant SLQs will undergo as a result of the Offshore Development and determines the potential level of effect.

NatureScot's 'Guidance for Assessing the Effects on Special Landscape Qualities' (2018) requests mention of mitigation measures. The likely visual effects of different layout scenarios have been investigated in the absence of mitigation measures as part of the review of the worst case scenario layout for the Offshore Development. The iterative design process for the Offshore Development has led to the Array Area being reduced from 20 km² to 10 km² with the extent of the Array Area facing the north Caithness coast being reduced. This has had the effect of notably reducing the horizontal extent of the offshore WTGs with the layout being contained in a much more compact area. The location of the Array Area has also changed such that it would be located a minimum of 7.5 km from the north Caithness coast, whilst previously it would have been located a minimum of 6.7 km and the maximum number of offshore WTGs being considered has reduced from 10 to 5. The final design and layout will be required to take into account other stakeholder requirements such as navigation, commercial fisheries and search and rescue (SAR); and other technical and environmental factors within the PFOWF Array Area.

1.5.1 Sensitivity of the Hoy and West Mainland NSA

The value of the Hoy and West Mainland NSA is high. This is because it is a national designation, applied in this area to signify the national importance of the scenic landscape.

The susceptibility of the NSA to the effects of the Offshore Development is medium-high and prevented from being rated high by the following factors. Firstly, the SLQs of the NSA relate principally to inherent features and characteristics associated with Hoy and West Mainland, which will not be directly affected by the Offshore Development. Secondly, while there is a strong association between the NSA and the close-range seascape along the west coast, this association weakens across the more distant range seascape, towards the Mainland of Scotland where the Offshore Development will be located. Thirdly, the Offshore Development will be located a minimum distance of 32 km from the closest boundary of the Hoy and West Mainland NSA and as shown in the ZTV in Figure 6.11, visibility of the Offshore Development will be limited in extent, such that only the western and central parts will be affected. Fourthly, while there are no operational offshore wind farms visible from the NSA, there are operational onshore wind farms visible which have an existing influence across parts of the

NSA, as shown in the cumulative ZTVs in Figures 16.17 to 16.27. There is also an existing influence from the settlement of Stromness, which lies within the NSA and the frequent ferries and boats, and occasional cruise liners, that pass in and out of Hoy Sound and along the west coast of Hoy.

The combination of the value of this NSA and its susceptibility to the effects of the Development results in an overall **high** sensitivity.

1.5.2 Identify those SLQs with Potential to be Affected

In respect of the Hoy and West Mainland NSA, there are 11 SLQs listed in 'The special qualities of the National Scenic Areas' (SNH, 2010). The majority of the 11 SLQs will not be affected, largely owing to the fact that the Offshore Development will be located outwith the NSA boundary and at distances greater than 32 km. Moreover, many of the SLQs are not susceptible to indirect effects or effects arising in respect of the wider setting. The two SLQs assessed in detail, have potential to be indirectly affected either from within the NSA, or from outwith the NSA, whereby the setting of the NSA, as seen within the wider landscape and seascape context, could be affected. Table 1.5-1 below presents the 11 SLQs attributed to the Hoy and West Mainland NSA, highlighting in grey the two which have potential to be significantly affected and which, therefore, require a detailed assessment.

Table 1.5-1 SLQs of the Hoy and West Mainland NSA

| Special Landscape Quality | Susceptibility to the Offshore Development |
|---|---|
| A palimpsest of geology, topography, archaeology and land use. | Indirect effects comprising visibility of the Offshore Development will not affect this SLQ of ' <i>a palimpsest of geology, topography, archaeology and land use</i> '. |
| An archaeological landscape of World Heritage Status. | The ZTV in Figure 16.13 shows that the main archaeological features that are covered by the NSA are not affected by visibility of the Offshore Development and, therefore, there will be no effect on this SLQ. |
| The spectacular coastal scenery. | There is the potential that visibility of the Offshore Development could affect the appreciation of the coastal scenery of Orkney as seen from the Mainland of Scotland as well as affect the views from the coastal scenery to the surrounding seascape. |
| Sandstone and flagstone as an essence of Orkney. | Indirect effects comprising visibility of the Offshore Development will not affect this SLQ of ' <i>sandstone and flagstone as an essence of Orkney</i> '. |
| A long-settled and productive land and sea. | Indirect effects comprising visibility of the Offshore Development will not affect this SLQ of ' <i>a long-settled and productive land and sea</i> '. |
| The contrast between the fertile farmland and the unimproved moorland. | Indirect effects comprising visibility of the Offshore Development will not affect this SLQ of ' <i>the contrast between the fertile farmland and the unimproved moorland</i> '. |
| A landscape of contrasting curves and lines. | Indirect effects comprising visibility of the Offshore Development will not affect this SLQ of ' <i>a landscape of contrasting curves and lines</i> '. |
| Land and water in constantly changing combinations under the open sky. | Indirect effects comprising visibility of the Offshore Development will not affect this SLQ of ' <i>land and water in constantly changing combinations under the open sky</i> '. |
| The high hills of Hoy. | There is the potential that visibility of the Offshore Development could affect the appreciation of the high hills of Orkney as seen from the Mainland of Scotland as well as affect the views from the high hills to the surrounding seascape. |
| The townscape of Stromness, its setting and its link with the sea. | Indirect effects comprising visibility of the Offshore Development will not affect this SLQ of ' <i>the townscape of Stromness, its setting and its link with the sea</i> '. |

| Special Landscape Quality | Susceptibility to the Offshore Development |
|---|--|
| The traditional buildings and crofting patterns of Rackwick. | Indirect effects comprising visibility of the Offshore Development will not affect this SLQ of ' <i>the traditional buildings and crofting patterns of Rackwick</i> '. |

1.5.3 Assess the Effects of the Development on the Relevant SLQs

The two SLQs with potential to be significantly affected by the Offshore Development are assessed in detail in Table 1.5-2 below. In the left-hand column, the descriptions of the SLQs are presented in bold text, while 'further information' is in normal text.

Table 1.5-2 Effects of the Offshore Development on the relevant SLQs

| Underpinning landscape characteristics to inform detailed SLQ descriptions | Impacts of the proposal on underpinning key characteristics and the effects on SLQs |
|--|--|
| SLQ: The spectacular coastal scenery. | |
| <p><i>"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.</i></p> <p><i>In comparison, the sheltered waters and gentle topography of the western approaches to Scapa Flow contrast with the Atlantic-battered western seaboard.</i></p> <p><i>The west coast of Mainland and Hoy contain high vertical cliffs, with St John's Head on Hoy, rising to 338m (the third highest sea cliff in Britain). They are composed of the Devonian Sandstone, with its distinctive bedding planes. The erosive force of the Atlantic storms and waves has exploited weaknesses in the strata to create cavities, skerries, gloops, geos, caves, wave cut platforms and boulder-strewn beaches.</i></p> <p><i>The Old Man of Hoy towers 137m from its resistant, igneous rock foundation at sea level; it was not climbed until 1966.</i></p> <p><i>The cliffs provide home to numerous sea birds. The west coast of Hoy is part of the Hoy SSSI, SAC & SPA, and RSPB reserve, containing around 120,000 birds. These include nationally important populations of fulmar, great black-backed gull and guillemot."</i></p> | <p>The ZTV in Figure 16.11 show that there will be almost continuous visibility of the Offshore Development on those sections of the west coast of Hoy and west coast of Mainland Orkney as well as the coastal seascapes that lie within the NSA boundary. The Offshore Development will be seen from Hoy at distances beyond 32 km and from Mainland Orkney at distances beyond 45 km. All seven of the proposed WTGs will be visible in the open seascape of the Pentland Firth to the south-west of the Orkney Islands.</p> <p>The magnitude of change will be low owing principally to the separation distances of beyond 32 km which will ensure that the Offshore Development will appear as a relatively small scale and distant feature, despite the WTGs being 300 m tall. The Horizontal Angle ZTV in Figure 16.8 shows that in terms of horizontal extent, the Offshore Development will occupy only 1 to 5 degrees of the full 360-degree views. The location of the Offshore Development a minimum of 8 km from the Mainland of Scotland will ensure that it is seen to be associated with this northern coastal edge. Furthermore, it will be seen in the context of a number of operational onshore wind farms, such as Baillie Hill and Forss, which are located on the mainland, and which will prevent the Offshore Development from appearing as an unfamiliar feature.</p> <p>The Offshore Development will present a distant feature at a minimum distance of 32 km that will have a very limited influence on the SLQ of 'the spectacular coastal scenery', which is principally about the features of the coastline, to which the Atlantic Ocean forms the setting. The Offshore Development will not redefine the special qualities of this coastal area.</p> <p>Taking all these factors into account, the effect of the Offshore Development on this SLQ will be not significant.</p> |

| Underpinning landscape characteristics to inform detailed SLQ descriptions | Impacts of the proposal on underpinning key characteristics and the effects on SLQs |
|---|--|
| SLQ: The high hills of Hoy | |
| <p><i>“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.</i></p> <p><i>Within a sheltered gully in these hills lies the small Berriedale birchwood, the most northerly native wood in Britain.</i></p> <p><i>Glaciated landforms on Hoy include distinctive U-shaped valleys, moraines, including a terminal moraine at Rackwick, and corries, the most northerly in Britain.</i></p> <p><i>Post-glacial features include patterned ground on the summit of Ward Hill (Hoy) and raised beaches. In contrast to Hoy, Mainland is a drowned coast without raised beaches.”</i></p> | <p>The high hills of Hoy form a backdrop to West Mainland in views from the northern parts of the NSA, from north-east, across the Bay of Ireland, Loch of Stenness and Loch of Harray, and views from the east, across Clestrain and Houton. The Offshore Development will have a very limited effect on these views. The ZTV in Figure 6.11 shows that visibility of the Offshore Development from West Mainland will be very limited in extents with only small patches occurring along the west coast. This means that the majority of West Mainland, from where the views of the high hills of Hoy are experienced would remain unaffected. In those localised patches where theoretical visibility is shown to occur, the Offshore Development will be a minimum of approximately 45 km such that it will be especially distant and small-scale. The horizontal angle ZTV shown in Figure 16.8 shows that the Offshore Development would occupy only 1 to 5 degrees of the full 360-degree views in this area. The Offshore Development will have a very limited influence on the character of these hills.</p> <p>In respect of the Berriedale Birchwood, the ZTV in Figure 6.11 shows that there will be no visibility of the Offshore Development in this area and, therefore, there will be no effect.</p> <p>There is, however, the potential that the Offshore Development could affect the setting of the high hills of Hoy in views from the Mainland of Scotland. From the eastern coast of the Strathy Point headland, the Offshore Development will be visible to the fore of the outline of Hoy. The Offshore Development will be visible at a range of 8 to 10 km and the high hills of Hoy at a range of 46 to 54 km. While Hoy will only be visible in clear or excellent conditions, during these periods it will form an important, albeit distant feature in views. The addition of the Offshore Development will give rise to a medium-low magnitude of change.</p> <p>Overall, the magnitude of change on this SLQ arising as a result of the Offshore Development will be low and the effect will be not significant. Along the eastern coast of the Strathy Point headland, there will be a very localised effect on the setting of the NSA in respect of this SLQ and here the effect will be significant.</p> |

1.5.4 Cumulative Effects

The cumulative assessment considers the following three scenarios;

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

The plan in Figure 16.16 shows that there are few cumulative developments within close proximity to the Hoy and West Mainland NSA, with the majority of the relevant operational and proposed developments shown to occur on the Mainland of Scotland, with the exceptions of the operational Hoy Community Wind Farm, consented Hoy Wind Farm, both located to the south of the NSA, and future proposed West Orkney Offshore Wind Farm, located to the west in the North Atlantic.

The cumulative ZTVs in Figures 16.17 to 16.27 illustrate the limited extents to which the operational and proposed developments will be visible from the Hoy and West Mainland NSA. Across the more exposed coastal edge of Hoy and elevated south-west facing slopes of the high hills of Hoy in the western and southern part of the NSA, visibility is more likely to occur, albeit with most of the developments occurring as very distant features on the Mainland of Scotland.

The cumulative wirelines for Viewpoint 9: Footpath to the Old Man o' Hoy and Viewpoint 15: Ward Hill, Hoy presented in Figures 16.39b to 16.39c and 16.45b to 16.45c, illustrate the limited influence of the operational and proposed wind farms, largely owing to their distance from the coast and hills in the southern part of the NSA but also the screening effect of the enclosing landform in the northern part.

1.5.4.1 Scenario 1

The operational wind farms with an influence on this NSA are mostly located on the Mainland of Scotland, albeit with their influence moderated by their separation distance and their relatively small scale. Scenario 1 also includes consented Hoy Wind Farm which, at a minimum of approximately 6 km to the south, draws the influence of wind farm development onto the Island of Hoy. Hoy Wind Farm comprises six WTGs each 149.9 m to blade tip. The cumulative magnitude of change will be low. While Hoy Wind Farm will contribute to the cumulative context, the distant location of the Offshore Development at a minimum distance of 32 km will limit the influence it has on the SLQs of the NSA, and this in turn will reduce its cumulative interaction with Hoy Wind Farm.

The combination of the high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect on the NSA in respect of Scenario 1.

1.5.4.2 Scenario 2

Under Scenario 2, the addition of the application stage developments to the cumulative context will make little change compared to Scenario 1, as they will all be located on the Mainland of Scotland at distances in excess of 30 km and seen in conjunction with other operational and/or consented developments. The cumulative assessment for Scenario 2, will, therefore, be the same as assessed under Scenario 1.

The combination of the high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect on the NSA in respect of Scenario 2.

1.5.4.3 Scenario 3

West Orkney Offshore Wind Farm would be seen as an extensive spread of offshore WTGs across the seascape of the North Atlantic to the west of the NSA, at a minimum distance of approximately 27 km. While the Offshore Development will not be seen to introduce wind farm development into an undeveloped seascape, it will be seen to spread the influence of offshore wind farms closer to the northern coast of the Mainland of Scotland. The seven WTGs will make the Offshore Development appear much smaller in extent compared to the much larger number of WTGs that are likely to make up West Orkney Offshore Wind Farm, which are likely to appear broadly similar in scale owing to their similar separation distances from the WLA. The cumulative effect will, however, be moderated by the substantial separation distances between the NSA and both the Offshore Development and the West Orkney Offshore Wind Farm, which means both will be seen as relatively distant features with the Offshore development occupying only a small extent of the wider 360-degree view. The cumulative magnitude of change will be **low**.

The combination of the medium-high sensitivity and the low cumulative magnitude of change will give rise to a **not significant** cumulative effect on the NSA in respect of Scenario 3.

1.6 Step 4: Summary of Effects on the Special Landscape Qualities

The assessment has considered the effect of the Offshore Development on the two relevant SLQs of the Hoy and West Mainland NSA. The finding is that the effects on these SLQs will not be significant. All other SLQs relating to other parts of the NSA and their setting, will not be significantly affected. The Offshore Development lies outwith the NSA, at a distance of over 32 km to the south-west, such that there will be no direct effects on the NSA, only indirect effects associated with its visibility. The ZTV in Figure 16.11 illustrates the relatively limited extent of visibility across the wider NSA, whilst also highlighting the concentration which occurs along the west coast of Hoy.

Nine of the 11 SLQs will not be affected by the Offshore Development, in most cases owing to the location of the Offshore Development more than 32 km to the south-west of the NSA, especially in the case of those SLQs which are not susceptible to indirect effects. The two remaining SLQs with potential to be affected include 'special coastal scenery' and 'high hills of Hoy' both of which will be indirectly affected through visibility of the Offshore Development in views to and from the NSA.

Table 1.5-2 presents the findings of the assessment on these two SLQs, which are that the effects will not be significant on 'special coastal scenery' or the high hills of Hoy', with the exception of a localised significant effect on the eastern coast of Strathy Point headland, over 45 km beyond the closest boundary of the NSA. These findings relate chiefly to a combination of the limited extents of visibility in those parts of the NSA where the SLQs are experienced, the substantial separation distances between the Offshore Development and those areas where visibility will occur, the small number of offshore WTGs that will be present and the especially contained horizontal extent they will occupy amidst a much wider seascape, and the existing influences from surrounding modern artefacts and contemporary land uses in southern parts of Hoy, West Mainland, and the Mainland of Scotland, albeit distant in location.

While there is potential for cumulative effects to arise through the addition of the Offshore Development, these will not be significant owing principally to the notable separation distance between the Offshore Development and the NSA, as well as the separation between the majority of other cumulative developments and the NSA. This means that the Offshore Development and other developments will have a relatively weak influence on the cumulative situation.

While the Offshore Development will have effects on two of the 11 SLQs of the NSA, the effects will be not significant, with the exception of a localised significant effect on the eastern coast of Strathy Point headland, over 45 km beyond the closest boundary of the NSA. The overall effect on the Hoy and West Mainland NSA will be not significant as the objectives of the designation and the overall integrity of the NSA as a whole will not be compromised.

1.7 References

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