5 Human Environment

5.3 Seascape, Landscape and Visual Impact Assessment

5.3.1 Introduction

5.3.1.1 The Seascape, Landscape and Visual Impact Assessment (SLVIA) considers the effect on the seascape and landscape character and the effect on visual amenity (views) of the modified transmission infrastructure (modified TI) (Figure 5.3-1). The modified TI consists of modified Offshore Transmission Infrastructure (modified OfTI) - Offshore Substation Platforms (OSPs) and modified Offshore Export Cable Route Corridor; and modified Onshore Transmission Infrastructure (modified OnTI) - modified Onshore Export Cable Route Corridor and Onshore Substations. A Rochdale Envelope setting out the design parameters has been defined for the modified TI and is described further as it applies to the SLVIA in Section 5.3.2. The effects of the three consented wind farms (Telford, Stevenson and MacColl) were assessed in detail in the MORL ES (MORL, 2012).

5.3.1.2 The term Seascape, Landscape and Visual (SL&V) Receptors refers to the landscape and seascape character of the Moray Firth, and the communities of people who experience this environment, the relationships that they have with each other and the physical environment. Seascape character is an extension of landscape character, but emphasises other elements that are slightly different or more important at the coast, when defining the character of seascape compared to landscape.

5.3.1.3 Photomontages, panoramic photographs and plan / map figures, which form the visualisation section of this ES and support the written SLVIA are bound into one complete A3 document entitled 'Volume 4: Moray Offshore Wind Farm Modified TI SLVIA Photomontages and Visualisations'.

5.3.2 Rochdale Envelope Parameters Considered in the Assessment

Modified Offshore Transmission Infrastructure (Modified OfTI)

Offshore Substation Platforms

5.3.2.1 Indicative locations of the OSPs have been assumed for the SLVIA; up to two AC OSPs are planned within the three consented wind farm sites. The indicative locations of the OSPs assumed for the SLVIA Rochdale Envelope are shown Figure 5.3-2 and are identified as OSP 1 (to the north-west) and OSP 2 (to the south) to represent the worst-case scenario.

5.3.2.2 Both OSPs will have a maximum platform length of 100 m, platform width of 100 m and platform height of 70 m. The maximum height of 70 m is the total height of the topside structure (the substation 'box') and visible jacket foundations / air gap, above LAT. Jacket foundations are assumed for the SLVIA. The SLVIA assumes that the interface level (the height of visible jacket structures above water) is 20 m above LAT and the height of the topside structure is 50 m. The jacket foundations for the OSPs will have four sides and up to 6 legs per jacket structure, supported in a lattice tower arrangement and painted yellow for navigational marking.

5.3.2.3 OSPs will be constructed with suitable installation vessels. The Rochdale Envelope assumes 240 vessel days are required over the construction period (described in Chapter 2.2), with an additional 40 vessel movements to and from port. Illustrative photographs of OSP installation vessels are shown in Figure 5.3-2 to demonstrate the types of vessel which will be visible during the OSP construction period.

Modified Offshore Export Cable Route

5.3.2.4 The Rochdale Envelope for the SLVIA assumes that up to four offshore export cables will be installed in a cable trench in the sea bed, between the OSPs and the modified export cable landfall at Inverboyndie (approximately 52 km from the southern boundary of the three consented wind farms), within the modified offshore export cable route corridor shown in Figure 5.3-2. The Rochdale Envelope for the modified offshore export cable consists of up to four sub-sea trenches, which would not be visible, laid within the modified offshore export cable route corridor of maximum 1200 m width (as a result of each cable being spaced four times water depth apart).

5.3.2.5 The Rochdale Envelope for the SLVIA assumes that the modified offshore export cable route will be laid by a cable laying vessel, as described in Chapter 2.2 (Project Description), operating during the construction period. The assessment also assumes that there will be a maximum of 240 cable laying days over a two year period. Movements to and from port will be dependent on the port location, which has not yet been selected, but the Rochdale Envelope for the modified offshore export cable route is based on 40 vessel movements to and from the construction port and site. Illustrative photographs of cable laying vessels are shown in Figure 5.3-2 to illustrate the types of vessel which will be visible during the cable laying construction period.

Modified Onshore Transmission Infrastructure (Modified OnTI)

5.3.2.6 The Modified Onshore Transmission Infrastructure (Modified OnTI) consists of the modified export cable landfall (intertidal), up to four separately bundled onshore export cables and two onshore substations (the MORL substation and the regional Transmission Owner (TO) substation). The OnTI SLVIA Study Area is shown in Figure 5.3-3.

Modified Onshore Export Cable Route Corridor

5.3.2.7 The Rochdale Envelope for the SLVIA assumes that the export cables will be installed in four separate 4 m wide trenches (individual trenches for each trefoil circuit) within a 60 m working width corridor in the 500 m wide modified onshore export cable route corridor, between the modified export cable landfall at Inverboyndie and the onshore substations location (approximately 33 km) (Figure 5.3-3).

5.3.2.8 Several installation methods may be used for the underground onshore export cable installation: cable plough, directional drilling (landfall and water crossings) and open trench. A description of these installation methods is provided in Chapter 2.2 (Project Description).

5.3.2.9 The Rochdale Envelope for the SLVIA assumes that the modified export cable landfall at Inverboyndie beach will be installed in four separate 4m wide beach open pit trenches (one for each subsea cable circuit, each circuit comprising trefoil arrangement) extended down to the low tide level (with the sides of the trench typically temporarily supported). The installation method used for the modified export cable landfall installation is likely to be open trenching, or horizontal directional drilling (HDD). A description of these installation methods is provided in Chapter 2.2 (Project Description).

Onshore Substations

5.3.2.10 The Rochdale Envelope for the SLVIA assumes that two onshore substations will be required to connect to the onshore grid network, consisting of the MORL onshore substation (MORL Substation) and Transmission Owner (TO) substation. These two substations will be co-located within a single compound located to the south-west of New Deer, Aberdeenshire, as shown in Figure 5.3-3. The Rochdale Envelope assumes that the onshore substations include the MORL and TO Substations within a single substation compound of approximately 305m x 270m (Figure 5.3-5), located indicatively within a wider 'substations area' that includes landscaping and screening, which is indicatively shown in Figure 5.3-29.

5.3.2.11 A substation layout plan showing the assumed dimensions and layout of the MORL onshore substation and TO substation is shown in Figure 5.3-5. The layout of the onshore substations has been modelled using several 'development envelopes' related to the height, width and depth of each part of the substation (shown in Figure 5.3-5). The envelopes are modelled at the maximum height of the largest structures or buildings within each area and therefore represent a worst-case scenario, showing the area in which the substations will be built. These envelopes are used as the basis for visual modelling in the photomontages and the assessment of effects. Colours are used solely to differentiate between the MORL substation and the TO substation and to differentiate between buildings and external electrical equipment. The colours shown are not indicative of the colour of the substation buildings, which will be agreed with Aberdeenshire Council at detailed planning stage to help reduce the visual impact of the onshore substations.

5.3.2.12 The MORL substation Rochdale Envelope broadly consists of the following:

- 2 x GIS Switchgear Buildings (11.5 m);
- 2 x Reactor Units (9 m);
- 4 x Auto Transformers (11.28 m);
- Pylons (7 m & 12.5 m); and
- Various Electrical Equipment (7 – 8 m).

5.3.2.13 The TO substation Rochdale Envelope broadly consists of the following:

- GIS Switchgear Building (12.65 m);
- Other Building (4.7 m);
- Fenced Enclosure containing Electrical Equipment (4 m); and
- Various Electrical Equipment (7 – 12.65 m).

5.3.2.14 Lighting of the substations will be required, but this is assumed to be passive lighting (passive infra-red) and that the onshore substations will not be permanently lit. Landscape and screening works are proposed within the onshore substation area and are described in full in Section 5.3.4 (Mitigation) and indicatively shown in Figure 5.3-29.

5.3.3 Baseline Information

Introduction

5.3.3.1 The SLVIA baseline covers both seascape/landscape character and visual amenity. The seascape/landscape baseline provides an understanding of the seascape/landscape in the area that may be affected – its constituent elements, its character, distinctiveness, condition and value, and the way this varies spatially. The visual baseline establishes the area in which the modified TI may be visible, the different groups of people who may experience views of the modified TI, the viewpoints where they will be affected and the nature of the views at those points.

5.3.3.2 The baseline describes aspects of the seascape/landscape and visual environment that may be significantly affected, as required by Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 and Schedule 3 of the Marine Works (Environmental Impact Assessment) Regulations 2007 (together the EIA Regulations). Establishing the baseline will, when reviewed alongside the description of the modified TI, form the basis for the identification and description of the effects of the modified TI.

5.3.3.3 The baseline seascape/landscape character assessment from the MORL ES (MORL, 2012) has been used to define the baseline conditions. A coastal character methodology was applied to identify Coastal Character Areas (CCAs) informed by, and at a scale comparable to, the existing SNH Landscape Character Assessments (LCAs) (SNH, 1997 and 1998).

5.3.3.4 The baseline description of the SL&V receptors that may be affected is primarily determined by the physical footprint of the modified TI and their Zone of Theoretical Visibility (ZTV) (Figure 5.3-15). An overview of the seascape/landscape baseline is described and a scope assessment identifies receptors that may experience significant effects, which require to be assessed in full. A detailed description of the baseline for each seascape/landscape and visual receptor that may be significantly affected is provided in the Impact Assessment in Section 5.3.4.

5.3.3.5 The baseline also describes current pressures that may cause change in the landscape in the future, in particular drawing on information for wind energy developments that are not yet present in the landscape, but are at other stages in the consenting process (as requested in consultations with Aberdeenshire Council). Operational and under construction wind energy developments are regarded as part of the baseline landscape character of the area. Any changes resulting from the modified TI are assessed within this context in the assessment of landscape and visual effects.

Consultations

5.3.3.6 A brief narrative of consultation undertaken for the SLVIA, including scoping responses, is provided in Table 5.3-1. Full scoping responses are provided in Chapter 1.3.

Table 5.3-1 Summary of Consultation Responses

Organisation	Consultation Response	MORL Approach
Scottish Natural Heritage (SNH) / Joint Nature Conservation Committee (JNCC) 23rd May 2014	OfTI • There was a comprehensive SLVIA provided in the ES supporting the Section 36 and marine licence applications for the Project. • SNH would welcome some further consideration of the offshore substations as part of the assessment for the modified TI. • This assessment can use the baseline character assessment in the MORL ES (MORL, 2012) to consider any additional, or different, SL&V effect from those previously assessed in respect of the proposed OSPs in combination with the (consented) wind turbines.	OfTI • Further consideration of OSPs provided in this ES. • Additional/different SL&V effects considered in respect of baseline character assessment from MORL ES (MORL, 2012).
Scottish Natural Heritage (SNH) 14th May 2014	OnTI • SNH considered that the impact (of the OnTI) would not raise any landscape concerns that would be of regional or national importance and therefore deferred the assessment of the landscape and visual impact of the project to Aberdeenshire Council. • Recommended giving strategic consideration to other cable works planned or proposed in the vicinity of the Moray coast as proposed in Chapter 2.28 in the National Planning Framework 3.	OnTI • Due to lack of detail about schedules and design parameters, it has not been possible to carry out an assessment of the likely cumulative effects of enhancing the high voltage transmission network identified in NPF 3 (Scottish Government, 2014).

Organisation	Consultation Response	MORL Approach
Aberdeenshire Council Consultation Meeting 16th May 2014 Scoping Response 21st May 2014	• A LVIA should be produced in accordance with GLVIA (3rd Edition). • Sensitive viewpoints or receptors in the area of the modified TI should be assessed. • The Culsh Monument, New Deer should be used as a more strategic viewpoint for the LVIA. • The EIA should contribute to the site design process, in terms of locating and designing the development to have minimal/no adverse effects on the landscape. • The LVIA should consider other planning applications with significant visual implications for the area, particularly wind energy projects. • The cumulative assessment can extend to around 6km from the proposed development site. • All elements of the modified TI should be designed to have minimal impact on the character of the area. • Onshore substation buildings should be placed as low as possible, with screening from sensitive local receptors to minimise potential adverse visual effects. • Quality design of buildings and landscape would assist assimilation of the onshore substations into the location. • Measures to establish a development with bespoke and positive aesthetics should be considered. • Elements of the development with adverse effects should be screened with earthworks and planting. • All earthworks should be designed to appear organic and naturalistic. • Screen planting should be based on the list of native plants appropriate to the Buchan area. • Existing woodland should be conserved and incorporated into the development. • Landscape proposals would be a major factor of mitigation across the development site. • The proposal should indicate the location of all proposed elements of landscape and related features. • Other habitat development (with biodiversity value) should be designed into the development proposal. • A landscape maintenance plan should address the long-term management of the landscape scheme.	• LVIA produced in accordance with GLVIA (3rd Edition). • Viewpoint assessment undertaken. • Culsh Monument included in assessment. • Landscape mitigation proposals are proposed as part of the design of the modified TI. • LVIA focuses on potentially significant cumulative effects • Onshore substation Study Area defined as 6 km radius area. • Landscape proposal for onshore substation includes woodland screening and landscaping to minimise potential adverse landscape and visual effects. • Woodland screen planting is based on native plants and woodland design appropriate to the area. • Landscape mitigation proposals include other habitat enhancement proposals including marshy grassland and hedgerow establishment. • Landscape maintenance plan will be produced to address long-term management of the landscape scheme.

Seascape/Landscape Baseline Overview

SLVIA Study Area and Offshore Substation Platforms (OSPs)

5.3.3.7 The SLVIA Study Area covers a 50 km radius area from the three consented wind farms, covering the Moray Firth, its adjacent coastline in Caithness, Morayshire and Aberdeenshire, and the southern edge of South Ronaldsay in the Orkney Islands.

5.3.3.8 The SLVIA Study Area includes the Caithness coast between Duncansby Head and Brora, and extends up to approximately 30 km inland and encompasses the Flat Peatlands and the Moorland Slopes and Hills landscape types of Caithness, which define the inland extent of visibility of the sea. The Caithness coastline is within National Seascape Unit 7 – East Caithness and Sutherland, and is defined mainly by Seascape Character Type 2: Rocky Coastline with Open Sea Views, with smaller sections of Type 1: Remote High Cliffs and Type 3: Deposition Coastline with Open Sea Views (Figure 5.3-6). The Telford and Stevenson wind farm sites are located approximately 22 km from Caithness, at their closest points.

5.3.3.9 The Study Area includes the North Aberdeenshire and Morayshire coast between Lossiemouth and Banff, located approximately 40 km from the MacColl site, at its closest point. This coastline is within the North Aberdeenshire / Morayshire Coast National Seascape Unit 5. This coastline is defined mainly by National Seascape Character Type 2: Rocky Coastline with Open Sea Views and Type 3: Deposition Coastline with Open Sea Views (Figure 5.3-6). The key characteristics of these national seascape units and seascape character types are described in full in Chapter 5.4 of the MORL ES (MORL, 2012).

5.3.3.10 Coastal Character Areas (CCAs) are defined within the SLVIA Study Area around the OSPs in Figure 5.3-6. The key characteristics and features of these CCAs are described in Chapter 5.4.3 of the MORL ES (MORL, 2012) and described further where relevant to the modified TI in this ES.

5.3.3.11 All National Seascape Units/Types and CCAs within Caithness are located at a minimum distance of 23.4 km from the indicative location of OSP 1. All National Seascape Units/Types and CCAs within Moray and Aberdeenshire are located at a minimum distance of 46.4 km from the indicative location of OSP 2.

Modified Offshore Export Cable

5.3.3.12 The Rochdale Envelope for the SLVIA assumes that the modified offshore export cables will be installed in up to four cable trenches in the sea bed, between the OSPs and the modified export cable landfall point at Inverboyndie. The coastal character of the Moray and Aberdeenshire Coastline near the modified offshore export cable route is illustrated in Figure 5.3-8. The coastline has been divided into 17 Coastal Character Areas (CCAs). Landscape Character Types (LCTs) are also defined in terrestrial areas along the coast, where the sea or coast provide a defining influence, and further inland where the sea and coast do not define the landscape characteristics.

5.3.3.13 The modified offshore export cable route corridor is principally located immediately offshore from National Seascape Unit 5: North Aberdeenshire / Moray Coast (Figure 5.3-8), which has the following key characteristics:

- North–facing generally 'straight' coastline with small indentations, few significant headlands and with open views to North Sea;
- Low cliffs / rocky coastline predominates;

- Farmland backs coast and this generally comprises a low lying gently rolling open plain with some Remnant heathland present in places; and
- Small and widely spaced settlements clustered in the main at base of cliffs or inlets, many of these are of historic interest and all have a strong relationship to the coast.

5.3.3.14 The modified offshore export cable route corridor is located immediately offshore from the Rocky Coastline with Open Sea Views National Seascape Type covering the North Aberdeenshire coast (Figure 5.3-8), which has the following key characteristics:

- Long straight stretches of coastline with cliffs rise to some 30 m height and often with a raised beach edge.
- Few significant headlands, although geological differences create an indented coast with bays and inlets, arches and caves;
- Harder volcanic rocks producing a more resistant coastline of promontories, low cliffs and rocky shoreline.
- Compact fishing villages are located at the base of cliffs in small bays while castles and cliff top forts occur on headland locations, highlighted against the simple sea.
- Settlements and built features appear to be spaced at even intervals and thus provide a visual rhythm of foci along the coast.
- Views over the North Sea are generally wide and open.
- Shipping is a common feature seen out to sea and some isolated industry occurs along the coast.
- While these are exposed seascapes, their agricultural hinterland, the presence of settlement and nearby roads and also views of shipping and occasional industry, limits the sense of wildness likely to be experienced.

5.3.3.15 The modified offshore export cable is located immediately offshore from the Boyndie Bay CCA (Figure 5.3-8), within which the modified export cable landfall is located, which has the following key characteristics:

Maritime Influences

- Broad, concave bay with a mainly north-east orientation.
- Smaller, local bays formed at Inverboyndie and Banff Bay, separated by craigs around Meave Point.
- Shipping is a common feature seen out to sea.
- Water based recreation and beach activities, e.g. surfing.
- Harbours ar Banff and Macduff with fishing and maritime vessels.
- Low level of shipping parallel to coast and some recreational sailing.
- Views across the bays towards headlands and out to sea to the distant horizon.

Character of Coastal Edge

- Rocky, undulating coastline with elevated views along the coast and across the open expanse of sea.
- Sea views framed in places by undulations in the landform and in bay areas.

- Coastline includes large number of indentations, stacks and cliffs, such as the Tumblers.
- Sandy beaches at Inverboyndie Beach and Banff Beach.

Character of Immediate Hinterland

- Topography rising to form coastal hills adjacent to the vertical cliffs which contains sandy beaches.
- Hinterland is heavily influenced by urban areas of Banff and Macduff on either side of Banff Bay and the River Deveron.
- The main A98 road runs parallel to coastline.
- Recreational use of sandy beaches at Inverboyndie and Banff Beach, with coastal footpaths, car park, play areas and visitor facilities including Banff Links Caravan Park.
- Inverboyndie beach is backed by golf links to the east - the blue roofed former club house is still present.

Wildness / isolated Coast

- Although it is exposed in places, built features including main road, communications / power lines and urban area limit the sense of wildness likely to be experienced.
- Some areas inaccessible due to vertical cliff faces.

Modified Onshore Export Cable Route Corridor (and Modified Export Cable Landfall)

5.3.3.16 The LVIA for the modified onshore export cable has been undertaken within the OnTI Study Area as shown in Figure 5.3-3, which extends between the North Aberdeenshire coast, Fyvie to the south, Averchirder to the west and Maud to the east. The OnTI Study Area defined encompasses the modified onshore export cable route corridor (including the export modified export cable landfall at Inverboyndie Beach) and the proposed onshore substations to the south-west of New Deer. The route of modified onshore export cable route corridor was influenced by known receptors and constraints, informed by a desk top study of Ordnance Survey data and a walkover study of the route in the field, together with landowner consultations along the route corridor.

Seascape Character

5.3.3.17 The modified onshore export cable landfall lies within the National Seascape Unit 5: North Aberdeenshire / Moray Coast, the Rocky Coastline with Open Sea Views National Seascape Type and the Boyndie Bay CCA, as described previously and shown in Figure 5.3-8.

Terrestrial Landscape Character

5.3.3.18 The existing terrestrial SNH character assessment for Banff and Buchan (SNH, 1997) covers the modified OnTI Study Area. The assessment divides the landscape into tracts that are mapped and referred to as landscape character types (LCTs). These have been subsequently subdivided into geographically specific landscape character areas (LCAs) which provide the baseline characterisation of the modified onshore export cable route corridor. Figure 5.3-10 identifies the landscape character areas within the OnTI Study Area, within which the onshore export cable will be located. The onshore modified export cable landfall falls within The Coast LCT, within the Cliffs of the North and South East Coast LCA. The remainder of the route passes through agricultural areas of Banff and Buchan, through the Western Coastal

Farmland LCA, before crossing the Deveron and Upper Ythan Valley LCA and then taking a route south-east through the Agricultural Heartlands LCA to the onshore substation area. The alignment of the onshore cable route through these LCAs is shown in Figure 5.3-10 and these LCAs are listed, along with a summary of their key characteristics in Table 5.3-2 below.

Table 5.3-2 Onshore Cable Route: Terrestrial Landscape Character

LCT	Landscape Character Area	Key Characteristics
The Coast	Cliffs of the North and South– East Coasts	Cliff edged headland, inlets occasional sandy bays and notable blow holes. Overall impression of open, large scale landscape, wide expanses of merging sea and sky. Vegetated slopes and frequent habitation, including ruined castles and mansion houses.
Coastal Farmland	Western Coastal Farmland	Large-scale landscape of coastal farmland, situated to the south of Portsoy, with shallow basins, broadly sweeping plains and infrequent rounded hills rising from the low ground to form gentle landmarks in the rolling terrain. The influence of the sea, which is glimpsed through the rolling landform, is a common element in determining the character.
River Valleys	Deveron and Upper Ythan Valley	Major river valley which is well settled, wooded and visually diverse. Incised through the surrounding agricultural plains, the Deveron and Upper Ythan rivers and their adjoining tributaries meander through predominantly shallow valleys, bounded by broad and rolling hill ridges to either side. Occasionally these valley sides become steeper as the River Deveron flows northwards where it joins the sea in Banff.
Agricultural Heartland	Agricultural Heartland	Agricultural land use over gently rolling landform. Open views over the surrounding, large scale landscape. Trees in shelterbelts, along ridges, around farms and in small coniferous blocks combine to provide some contrast and prevent a sense of bleakness. Field boundary types varied between fences and hedges to the south and east with some stone walls and consumption dykes to the north near Strichen.

Landscape Elements and Features

5.3.3.19 The land use within the modified onshore export cable route corridor varies somewhat between the four LCTs which characterise the route, but remains predominantly agricultural, with large arable and pastoral fields, relatively limited hedgerow cover and occasional semi-natural and plantation woodland. There are also areas of moss/wetter grassland and occasional surface water bodies in lower lying areas, but agricultural fields are extensively drained by a network of small burns around field boundaries.

5.3.3.20 The principal landscape elements within the modified onshore export cable route corridor are shown in Figures 5.3-18 – 5.3-22. Areas of woodland are identified as principal landscape elements that may be affected by the onshore cable route and are shown in these figures, including several areas of ancient woodland[1]. Landscape elements are identified within each LCA in Table 5.3-3.

[1] In Scotland, Ancient Woodland is defined as land that is currently wooded and has been continually wooded, at least since 1750.

Table 5.3-3 Onshore Cable Route: Landscape Elements

Landscape Element	Feature
Section 1: The Coast (Cliffs of the North and South East Coast LCA and Boyndie Bay CCA)	
Semi-natural ancient woodland:	None
Ancient woodland:	None
Other woodland:	C1 - Burn of Boyndie C2 - Black Hillocks Shelterbelt
Field boundaries:	Post and wire fences / consumption dykes
Farmland:	Predominantly Arable
Section 1 and 2: Coastal Farmland (Western Coastal Farmland LCA)	
Semi-natural ancient woodland:	None
Ancient woodland:	CF2 - Hills of Boyndie CF3 - Coach Brae CF4 - Hill of Alvah CF5 - Claret Brae
Other woodland:	CF1 - Cuttle Rig
Farmland:	Predominantly arable
Field boundaries:	Post and wire fences / consumption dykes / occasional scrub hedgerows
Section 2: River Valley (Deveron and Upper Ythan Valleys LCA)	
Semi-natural ancient woodland:	RV6 - Den of Inverichnie
Ancient woodland:	RV5 - Lower Wanford
Other woodland:	RV1 - Govel Hill RV2 - Berryton Cottage RV3 - Cormack's Hillock RV4 - Inverichnie
Farmland:	Predominantly arable, with some mixed farming / grazing.
Field boundaries:	Post and wire fences / consumption dykes / occasional scrub hedgerows and field boundary trees
Section 3: Agricultural Heartland (Agricultural Heartland LCA)	
Semi-natural ancient woodland:	None
Ancient woodland:	AH1 - Wood of Balchers
Other woodland:	AH2 - Mill of Balmaud AH3 - Yonderton
Farmland:	Predominantly arable
Field boundaries:	Post and wire fences / consumption dykes / occasional scrub hedgerows and field boundary trees
Section 4: Agricultural Heartland (Agricultural Heartland LCA)	
Semi-natural ancient woodland:	None
Ancient woodland:	None

Landscape Element	Feature
Other woodland:	AH4 - Slackadale AH5 - Hill of Cotburn AH6 - Cairnhill AH7 - Waterside
Farmland:	Predominantly arable
Field boundaries:	Post and wire fences / consumption dykes / occasional scrub hedgerows and field boundary trees
Section 5: Agricultural Heartland (Agricultural Heartland LCA)	
Semi-natural ancient woodland:	None
Ancient woodland:	None
Other woodland:	AH8 - Castlehill AH9 - Boghead AH10 - Howe of Teuchar AH11 - Bridge of Swanford
Farmland:	Predominantly arable
Field boundaries:	Post and wire fences / consumption dykes / occasional scrub hedgerows and field boundary trees

Landscape Designations

5.3.3.21 The majority of the modified onshore export cable route corridor is not subject to landscape designation.

5.3.3.22 The Deveron and Upper Ythan Valley LCA and the Cliffs of the North and South–East Coasts LCA of the modified OnTI Study Area, are defined by Aberdeenshire Council as Areas of Increased Sensitivity (AIS) in their Landscape Character Advice for Small Scale Development (LCASSD) (Aberdeenshire Council, 2012) (Figure 5.3-11). These LCAs are considered to be of increased landscape sensitivity due to their inherent characteristics and are coincident with what were historically identified as Areas of Landscape Significance (ALS) by Aberdeenshire Council. The Aberdeenshire Local Development Plan (Aberdeenshire Council, 2012) does not designate such areas and instead uses a landscape character approach to guide development (Policy 12 of the LDP).

5.3.3.23 The modified export cable landfall at Inverboyndie is located within the Cliffs of the North and South–East Coasts LCA, which is characterised by 'cliff-edged headlands, frequently fissured and bitten into by narrow inlets and, more rarely, hugging sheltered sandy bays such as those at Cruden and Sandend; although the overall impression is of an open, exposed, large-scale landscape, with wide expanses of sky and sea'. Specific relevant guidelines for this LCA in the LCASSD suggest that 'hedgerows and stone dykes should be maintained and reinstated' (LCASSD, Cliffs of the North and South East Coasts LCA section).

5.3.3.24 The modified onshore export cable landfall crosses the Deveron and Upper Ythan Valley LCA to the south of Bridge of Alvah, between Govel Hill, Inverichnie and Bridge of Denmill (Figure 5.3-11). The LCASSD advises that the Deveron and Upper Ythan Valley LCA is 'an area of increased landscape sensitivity due to the qualities of the River Deveron Valley, including; the deciduous trees; river side trees; beech hedging and views along the river'. This area is coincident with what was historically identified as an Area of Landscape Significance.

5.3.3.25 The modified onshore export cable route corridor passes to the west and south of Duff House GDL, which is located within the Deveron Valley, between Banff and Bridge of Alvah. Duff House GDL is a late 18th-century designed landscape of woods, walks, parks and ornamental architecture, valued for its scenic qualities and classical mansion, Duff House. Set on the west banks of the River Deveron, the designed landscape occupies a long and varied stretch of terrain ranging from the hills and the deep river gorge spanned by the Bridge of Alvah to the south, to the open flood plain of the river near its mouth at Banff to the north.

Onshore Substations

Terrestrial Landscape Character

5.3.3.26 The LVIA for the onshore substations' indicative location has been undertaken within a 6 km Study Area as shown in Figure 5.3-13. The definition of the Study Area for this assessment has been chosen based on project specific desk study, fieldwork and consultation. The onshore substations Study Area is principally characterised by the Agricultural Heartland LCT, which encompasses the full onshore substations Study Area. The majority of the central, northern and western parts of the Study Area characterised by the Agricultural Heartland LCA, with the south-eastern parts of the Study Area defined by the Northern Rolling Lowlands LCA and the Ythan Strath Farmland LCA.

5.3.3.27 The onshore substations are located within the Agricultural Heartlands LCA as identified in Aberdeenshire Council's Strategic Guidance SG Landscape 1: Landscape character and described in the Landscape Character Assessment of Banff and Buchan, Cobham Resource Consultants 1997, SNH Review No 37. Within Aberdeenshire the Agricultural Heartland landscape is extensive and covers several different geographical areas. Agricultural plains are the prominent characteristic and they tend to be influenced by the interior landscapes rather than the coast. Some diversity is created by elevation, landform and the incidence of shelterbelt woodlands and wooded estates.

5.3.3.28 The Banff and Buchan landscape assessment describes the area as follows:

"The gently rolling landform allows open views of the surrounding landscape, and on clear days the movement of clouds overhead forms patterns of light and shade across the broad plains. The frequent scattering of broad-leaved trees in shelterbelts along hill-ridges, around farms and, more occasionally, in small coniferous blocks, combine to enliven the landscape and prevent any feeling of bleakness in this vast agricultural plain. Field boundaries vary, including fence-lines, beech and thorn hedges to the south and east, and the occasional stone walls and consumption dykes to the north near Strichen. Farmsteads are frequent in this relatively well-settled landscape, as are small hamlets such as New Byth. Larger villages include Strichen, a fine example of a planned village, set in the sheltered North Ugie valley; New Deer, set on a ridge overlooking rolling farmland; and Cuminestown, the plan of which resembles the letter Z."

5.3.3.29 Scattered churches and community buildings provide features and gathering points within the landscape. These, as well as the larger settlements and the large numbers of farms and dwellings are connected by an extensive network of minor roads. Along with the geometrically laid out fields and angular plantings, these create a strong - patchwork type - pattern across the rolling landscape, which is emphasised by the variety of arable crops.

5.3.3.30 The settled landscape is crisscrossed by pole mounted transmission lines and the pylon mounted transmission line is a prominent feature in some locations. Views within the Agricultural Heartland landscape are confined in places to local areas with the rolling landform providing containment as well as vantage points where more distant views become available.

5.3.3.31 Although the land use of the onshore substation Study Area is predominantly agricultural, there is a pattern of scattered woodland shelterbelts, larger woodland blocks/plantations and semi-natural woodlands, particularly along the Deveron Valley to the west and the Braes of Gight to the south of the Study Area. The baseline woodland context of the area is illustrated in Figure 5.3-14. There is a frequent scattering of broad-leaved trees in shelterbelts along hill-ridges, around farms, and in small coniferous blocks, which combine to diversify the agricultural plain. There are few areas of extensive woodland in the area, with the most substantial being plantation woodlands, such as around the Howe of Teuchar and semi-natural woodlands within the Deveron Valley, such as the ancient woodlands of Gight, which represent some of the least disturbed native woodland in the Grampian lowlands. Comparatively more recent plantings are often associated with the estates, and include avenues, policies and shelterbelts. The existing woodland pattern evident in the landscape has informed the indicative landscape mitigation proposals for the onshore substations, described further in Section 5.3.4 and shown in Figures 5.3-28 and 5.3-29.

Landscape Elements and Features – Site Analysis

5.3.3.32 A site analysis of the substations area and surrounding local landscape has been undertaken and is illustrated in Figure 5.3-16. Key characteristics of the local landscape around the substations area are described as follows:

- Land use primarily arable farmland, interspersed with strong field boundaries of either coniferous planting, traditional drystone walls or post and wire fencing;
- Large scale electrical pylons and overhead lines traverse the substation area between Mains of Asleid and East Swanford;
- Field boundaries generally determined by hedgerows and post and wire fences with some drystone walls (consumption dykes) in varying conditions;
- Range of vegetation, including woodland shelterbelts and blocks of coniferous woodland, particularly along the Burn of Alseid and adjacent to minor road on the eastern boundary;
- Post and wire fences and drystone walls (consumption dykes) define fields within the site;
- Gently rolling landform of subtle undulations, occasionally dropping more notably into burns;
- The substation area is characterised by gently undulating landform with elevations generally between 100-110m AOD;
- To the south and west the land gently slopes away more steeply towards the Burn of Asleid, with the steepest incline to the south where the level falls to approximately 95m AOD;
- Areas of higher ground in the wider landscape can be found to the east, north-east, west and north-west of the site, on either side of the 'Little Water' river;
- Scattered detached houses and farmsteads with large steadings, with a cluster of dwellings around the Maryhill crossroads;

- North Millbrex Church present on distant skyline;
- Network of numerous watercourses and field drains, which drain the agricultural fields;
- Localised mosses and occasional surface water in areas of wetter, low-lying ground to the west/north-west e.g. Moss of Swanford;
- Numerous single turbines within the landscape. Three turbine wind farm on the Hill of Balquhindachy is most prominent in views from the site; and
- Network of B-roads and single track farm access lanes.

Landscape Designations

5.3.3.33 There are no landscape designations within the onshore substations Study Area, with the nearest being Hatton Castle Garden and Designed Landscape (GDL) located approximately 6.5 km to the west of the onshore substations and Fyvie Castle GDL located approximately 7 km to the south-west.

Visual Baseline Overview

SLVIA Study Area – Offshore Substation Platforms (OSPs)

5.3.3.34 There are a number of visual receptors, consisting of settlements, routes and features/attractions in the SLVIA Study Area that require consideration in the assessment of the modified TI, as views from them may be affected by the OSPs. These are described briefly below and shown in Figure 5.3-7.

Settlements

5.3.3.35 The SLVIA Study Area covers a large part of North East Caithness and the Morayshire and Aberdeenshire Coasts. Settlement along the Caithness coasts consists predominantly of scattered farms and crofts, with occasional villages such as Helmsdale, Dunbeath, Lybster and Keiss. Wick is the largest settlement in the Caithness part of the SLVIA Study Area; the town straddles the River Wick and extends along both sides of Wick Bay. In Caithness, Sarclet is the closest settlement to OSP 1 (23.7 km) and Wick is the closest large settlement to the indicative (worst-case) location of OSP 1.

5.3.3.36 In Moray / Aberdeenshire, the closest settlement to the indicative (worst-case) location of OSP 2 is Portknockie (46.6 km). The areas to the south of the Study Area covering the Morayshire and Aberdeenshire coasts contain a substantial amount of development, the main settlements include Lossiemouth, Buckie, Cullen and Banff, with smaller settlements at Portgordon, Findochty, Portknockie, Portsoy and Whitehills located within the sheltered bays along this coast.

Roads

5.3.3.37 There are numerous road corridors traversing the SLVIA Study Area, many of which are associated with urban development, while others provide access to the wider countryside. The main road corridors within the Caithness part of the Study Area are the A9(T), A99, A882, A836 and A897, with minor roads connecting the more remote parts of the Study Area including the B870, B874 and B876. The main road corridors within the Morayshire/Aberdeenshire part of the Study Area are the A99, A941 and A942.

5.3.3.38 The closest main road to OSP 1 is the A99, Helmsdale to John O' Groats, which is located approximately 25.2 km west of the three consented wind farm sites at its

closest point. The A9(T) is located approximately 34.2 km from OSP 1 at its closest point and the A882 is located 28 km from OSP 1. The A98 road corridor in Morayshire is located at a minimum distance of 47.9 km from OSP 2, with other road corridors in Morayshire located at greater distances.

Railways

5.3.3.39 The SLVIA Study Area includes one main railway line, running being Inverness to Wick and Thurso. The line follows the coast between Brora and Helmsdale before turning inland to a route along Strath of Kildonan outside the Study Area. The line re-enters the Study Area near Halkirk, where it branches north to Thurso and south east to Wick. The line is located over 33 km from OSP 1 at its closest point, but is generally located at longer distances.

Long distance Routes

5.3.3.40 National Cycle Route 1 (NCR1) traverses the northern part of the Study Area, shown in Figure 5.3-7, running along the north Caithness coast between John O' Groats and Thurso. The coastline and settlements of Morayshire are linked by a waymarked coastal walking trail, the Moray Coast trail, of approximately 50 miles between Findhorn and Cullen. The Moray Trail takes in landscapes from rugged cliffs, caves and sheltered coves to fishertown harbours and sweeping stretches of sandy beaches. The Moray Firth is one of 12 national tourist routes, designed to provide the travelling holidaymaker with an alternative to the main trunk roads and motorways. The route has been selected because it is attractive in its own right but also to offer a variety of things to see and do on the way to a main destination.

Attractions and Visitor Facilities

5.3.3.41 Tourism and recreation in the area are addressed in Chapter 5.5: Socio-economics. There are features and resources of interest to visitors in the Study Area; John O' Groats is popular with tourists because it is one end of the longest distance between two inhabited points on the British mainland. The most northerly point in the British mainland is located nearby at Dunnet Head. Some of the coastal villages and harbours provide attractive locations to stay for tourist visitors, including Keiss, Dunbeath and Helmsdale. The natural and historic environment of the Caithness coast provides extensive interest to visitors. The Caithness landscape, and particularly the coastline, is rich with the remains of human occupation from the pre-historic era to the present day, and there are numerous sites where this history is interpreted for visitors. The underlying geology, harsh climate and long history of human occupation have shaped the distinctive natural heritage. The landscape incorporates both common and rare habitats and species, and Caithness provides a stronghold for many once common breeding species of interest. The Moray coastline has a string of sandy beaches and accessible coastal settlements such as Buckie, Lossiemouth, Findochty, Portknockie and Cullen, have long been popular for family holidays. For the walker there are extensive coastal walks in the Study Area, taking in cliffs, arches and stacks as well as sand and dunes.

Viewpoints

5.3.3.42 The assessment of SL&V effects is informed by a series of 24 viewpoints, which were selected to cover locations with specific receptors of importance within the ZTV (Figure 5.3-7) for the three consented wind farms and OfTI, as assessed in the MORL ES (MORL, 2012) such as recognised viewpoints, designated landscapes, important routes and attractions. Viewpoints for the SLVIA were considered and agreed in consultation with The Highland Council, Moray Council, Aberdeenshire Council and

SNH as part of the MORL ES (MORL, 2012). Viewpoints that were agreed in 2012 pursuant to this section were agreed in terms of the three consented wind farms and eight OSPs that were part of the originally assessed OfTI. As the proposed two OSPs remain in the Eastern Development Area (EDA), the viewpoints agreed in 2012 are still relevant.

5.3.3.43 Table 5.3-4 lists the viewpoints and provides information on their location, the type of receptor that experiences the view and their distance from the nearest indicative (worst-case) OSP location. A description of the baseline conditions in these views is described in the MORL ES (MORL, 2012) (Section 5.4.7). The location of these viewpoints is shown in Figure 5.3-7 and the existing views towards the three consented wind farms from each viewpoint are shown in the MORL ES (MORL, 2012) Figures 8.4-13 to 8.4-36 (MORL ES Volume 7).

Table 5.3-4: Viewpoints - OSPs

ID	Name	Easting	Northing	Distance (km) from nearest OSP	Receptors
1	Duncansby Head	340528	973247	46.3 km (OSP1)	Walkers / birdwatchers
2	Keiss Pier	335055	960934	37.1 km (OSP1)	Residents / tourist visitors
3	Sortat	328903	963016	42.2 km (OSP1)	Residents
4	Wick Bay	336985	951027	27.8 km (OSP1)	Residents
5	Sarclet (Sarclet Haven Info Board)	334989	943334	23.7 km (OSP1)	Residents / visitors
6	Hill O' Many Stanes	329516	938430	26.1 km (OSP1)	Walkers / tourist visitors
7	Lybster (end of Main Street)	324843	935082	29.6 km (OSP1)	Residents
8	Latheron (A9)	319803	933152	34.2 km (OSP1)	Residents / motorists
9	Dunbeath (nr Heritage Centre)	315957	929567	37.8 km (OSP1)	Residents
10	Berriedale (A9)	313153	924611	40.8 km (OSP1)	Residents / motorists
11	Morven	300482	928539	53.3 km (OSP1)	Walkers
12	Navidale	303766	916161	51.6 km (OSP1)	Residents
13	Catchory	325836	957348	39.9 km (OSP1)	Residents
14	Minor Rd, south side of Stemster Hill	319802	940395	35.9 km (OSP1)	Motorists
15	Whaligoe Steps	332051	940296	24.5 km (OSP1)	Tourist visitors
16	Lossiemouth, Prospect Terrace (Info Point)	323397	870574	55.5km (OSP2)	Residents
17	Buckie, Cliff Terrace	343091	865825	60 km (OSP2)	Residents
18	Portnockie - Bow Fiddle Rock Info Point	349411	868741	46.5 km (OSP2)	Walkers
19	Cullen, Viaduct & cycle path	350995	867102	47.9 km (OSP2)	Residents / cyclists / walkers
20	Bin Hill	347989	864267	51.2 km (OSP2)	Walkers
21	Findlater Castle	354169	867086	47.5 km (OSP2)	Tourist visitors / walkers
22	Portsoy	359071	866382	48 km (OSP2)	Residents
23	Ferry Route (Kirkwall to Aberdeen) north	388911	931385	34.7 km (OSP2)	Ferry passengers
24	Ferry Route (Kirkwall to Aberdeen) south	382009	950868	35.8 km (OSP1)	Ferry passengers

Modified Offshore Export Cable

5.3.3.44 The modified offshore export cable will be installed in cable trenches between the OSPs within the three consented wind farms and the modified export cable landfall at Inverboyndie. Views of the modified offshore export cable installation, consisting of cable laying and support vessels, may be experienced by people in views from settlements, roads and recreational routes near the North Aberdeenshire / Moray coast, such as those illustrated in Figure 5.3-9. In particular, the modified offshore export cable installation may be experienced in views from the closest section of the coastline to the modified offshore export cable route, between Portsoy and Macduff, around Boyndie Bay and Boyne Bay. This area includes settlements at Banff, Macduff, Inverboyndie, Whitehills and Portsoy; and route corridors including the A98, B9139 and National Cycle Route 1. This closest section of Boyndie Bay also includes several recreational areas where groups of people may experience views of the modified offshore export cable installation, including Inverboyndie and Banff Beach, picnic sites at Knock Head, caravan sites at Banff Links, Whitehills and Portsoy.

5.3.3.45 Viewpoint locations along the Moray / North Aberdeenshire coastline are representative of views experienced by people along this coastline, including Buckie (Viewpoint 17), Portnockie (Viewpoint 18), Cullen (Viewpoint 19), Bin Hill (Viewpoint 20), Findlater Castle (Viewpoint 21), Portsoy (Viewpoint 22) as shown in Figure 5.3-9. A description of the baseline conditions in these views is described in Section 12.3.4 of the MORL ES (MORL, 2012). The existing views towards the three consented wind farms over the modified offshore export cable route from each viewpoint are shown in the MORL ES Figures 12.3.4-13 to 12.3.4-36 (MORL, 2012). An additional viewpoint has been included in this assessment of the modified TI at Inverboyndie Bay (Viewpoint 25). This viewpoint is located on the A98 layby near Banff which overlooks Inverboyndie Bay and illustrates the seascape setting of the closest parts of the offshore cable route to the modified export cable landfall. The existing view from this viewpoint is illustrated in Figure 5.3-17.

Modified Onshore Export Cable Route (and Modified Export Cable Landfall)

5.3.3.46 There are a number of settlements within the OnTI Study Area (Figure 5.3-12), ranging from the coastal town of Banff to villages such as New Deer and Cuminestown to scattered rural properties. These settlements are linked by a network of roads, including the main routes of the A98, A97 and A947. No railways are present in the OnTI Study Area.

5.3.3.47 National Cycle Route 1 (which is also part of the North Sea Cycle Route) runs through the search area several times, passing from Maud to Turiff, then up to Banff and across to Portsoy. There are no officially recognised Long Distance Routes (walking routes) in the search area, although a small section of The Formartine and Buchan Way (one of Scotland's Great Trails) runs less than 500m away from the south east corner of the area. There are also several regional footpath routes used by walkers, as well as cyclists.

5.3.3.48 A number of tourist and other visitor attractions are found within the onshore export cable search area, including beaches, Duff House and grounds (GDL) and historic landscape features, including a number of castles.

5.3.3.49 The principal visual receptors within 1km of the modified onshore export cable route corridor are shown in Figure 5.3.12 and at more detailed scale in Figures 5.3-23 to 5.3-27. Visual Receptors are identified within each LCA in Table 5.3-5 below.

Table 5.3-5 Onshore Cable Route: Visual Receptors

Type of Receptor	Visual Receptors
Section 1: The Coast (Cliffs of the North and South East Coast LCA and Boyndie Bay CCA)	
Main settlements/villages:	Banff, Inverboyndie, Whitehills
A and B Roads:	A98, B9038, B9139
Long Distance Routes/Paths:	NCN 1, Core Path - Banff Links, Core Path - Disused Railway
Recreation:	Inverboyndie Beach, Banff Links Caravan Park
Section 1 and 2: Coastal Farmland (Western Coastal Farmland LCA)	
Main settlements/villages:	None
A and B Roads:	A97, B9121
Long Distance Routes/Paths:	None
Recreation:	Limited, cycling/walking minor roads
Section 2: River Valley (Deveron and Upper Ythan Valley LCA)	
Main settlements/villages:	Kirktown of Alvah
A and B Roads:	None
Long Distance Routes/Paths:	NCN 1, Core Path – Montcoffer
Section 3: Agricultural Heartland (Agricultural Heartland LCA)	
Main settlements/villages:	Keilhill
A and B Roads:	A947
Long Distance Routes/Paths:	None
Recreation:	Limited, cycling/walking minor roads
Section 4: Agricultural Heartland (Agricultural Heartland LCA)	
Main settlements/villages:	Fintry, Cuminestown
A and B Roads:	B9105, B9170
Long Distance Routes/Paths:	NCN 1, Core Path – Idoch Water
Recreation:	Limited, cycling/walking minor roads
Section 5: Agricultural Heartland (Agricultural Heartland LCA)	
Main settlements/villages:	None
A and B Roads:	None
Long Distance Routes/Paths:	None
Recreation:	Limited, cycling/walking minor roads

Onshore Substations

5.3.3.50 The LVIA for the onshore substations has been undertaken within a 6 km Study Area based on the Zone of Theoretical Visibility (ZTV) (Figure 5.3-15), fieldwork and consultation. The theoretical visibility of the onshore substations is shown in the ZTV in Figure 5.3-15, which indicates the areas which have higher and lower visibility. The ZTV is based on the project envelope development model of the onshore

substations (Figure 5.3-5) on an OS 5 m terrain model and represents the bare earth, maximum theoretical visibility of the onshore substations in their indicative location within the onshore substations area, with no screening from surface features such as woodlands and buildings.

5.3.3.51 The ZTV of the onshore substations is relatively contained by the rolling landform of the area. Broadly it is contained between elevated ground around Auchmaliddie in the east (south of New Deer) to Muirtack/Upperton in the west; and between Cuminestown in the north and the Braes of Gight to the south. The principal area of higher visibility, within which the onshore substations will be most visible, is contained to the agricultural land immediately around the onshore substations between Burnside, Asleid, Millbrex and East Swanford. Areas of least visibility of the onshore substations are along the lower lying ground of Little Water, to the east/south-east/north-east. Large parts of the Study Area will have no visibility of the onshore substations, including the majority of the west of the Study Area, to the west of Deer's Hill; the north-west of the Study Area around Cuminestown; areas around New Deer to the north-east; and much of the lower lying ground of the southern part of the Study Area.

5.3.3.52 There are a number of small settlements located within the Study Area, ranging from the villages of New Deer and Cuminestown, to small hamlets such as Millbrex and Burnside, as well as numerous scattered rural properties and farmsteads. These are linked by an extensive network of minor roads, in addition to the A948, B9170 and B9005.

5.3.3.53 A section of the National Cycle Route 1 (which is also part of the North Sea Cycle) runs across the northern edge of the Study Area near Cuminestown, running from Auchnagatt to Maud. This route also forms part of The Formartine and Buchan Way (one of Scotland's Great Trails). There are few tourist and other visitor attractions of significance within the Study Area; those of note include the Gight Woods (Nature Reserve) 5 km to the south and the Culsh monument 6 km to the north-east of the onshore substations location. There are two Garden and Designed Landscapes (GDL) located just outwith the Study Area - Hatton Castle GDL is 6.5 km to the west and Fyvie Castle GDL is 7 km to the south-west.

5.3.3.54 Due to their location near the onshore substation area, there will be close range views of the onshore substations from the minor road passing the eastern edge of the substations area between Burnside and Hillhead of Alseid (Viewpoint 1 and 3); and from the minor road between Upper Mains of Alseid and North Millbrex (Viewpoint 2). The onshore substations will also be visible, albeit less so, when travelling along the minor road to the north between Burnside and Muirtack (Viewpoint 4); and the west between North Millbrex and Swanford (Viewpoint 5). More distant views of the onshore substation are possible from the minor road that connects Burnside to the B9170/Upperton (Viewpoint 6) and from the B9170 to the south of New Deer (Viewpoint 7).

5.3.3.55 There are numerous farmsteads scattered within the agricultural landscape that may have views of the onshore substations. The location of these residential properties and their principal view direction are indicated in the Site Analysis in Figure 5.3-16. There are several residential properties in the Burnside area which have south facing views towards the onshore substations, including Abbotshaugh, Cragganmore, Maryhill House, Maryhill, The Neuk, Upper Burnside, Burnside and Rosebank Cottage – although views are sometimes mitigated by intervening woodland or vegetation within the properties. East Swanford is located to the immediate north of the onshore substations, and has south facing views, but is partially screened due to its location in the Burn of Asleid and intervening woodland. To the east, Upper Mains of Asleid has a side elevation facing to the west, but is principally oriented to the south, with

shelterbelt screening to the north. Mains of Asleid has south facing views, which are contained by woodland to the south of the property and to the north-west they are partially enclosed by a woodland shelterbelt along the minor road. Burnside of Millbrex is located to the immediate south of the onshore substations. The principal view from the property is to the south and there is substantial woodland screening to the north along the Burn of Asleid. Several other properties within the area will have slightly more distant, or oblique views of the onshore substations – Smiddybank Farm, Swanford, Rowan Brae, Bridge Valley, Little Swanford, North Millbrex and Oakwood/North Mains of Asleid.

5.3.3.56 A viewpoint assessment of the onshore substations has been undertaken to inform and illustrate the assessment of effects on views. Table 5.3-6 below lists the viewpoints for the onshore substations and provides information on their location, the type of receptor that experiences the view and their distance from the onshore substations.

Table 5.3-6: Viewpoints – Onshore Substations

ID	Name	Easting	Northing	Distance	Receptors
1	Upper Mains of Asleid	383600	844428	282 m	Residents, Motorists
2	Burnside of Millbrex	383071	843952	336 m	Residents, Motorists
3	The Neuk	383121	845364	643 m	Residents, Motorists
4	Upper Burnside	382729	845614	957 m	Residents, Motorists
5	North Millbrex	382183	843638	1.13 km	Residents, Motorists
6	Upperton	384186	846009	1.70 km	Residents, Motorists
7	B9170 near New Deer	387929	845697	4.77 km	Residents, Motorists
8	Culsh Hill	388099	848099	6.0 km	Visitors (Culsh Monument / Cemetery)

5.3.3.57 A description of the baseline conditions in these views is described in the impact assessment in Section 5.3.4 so that they may be read together with the impact assessment. The locations of these viewpoints are shown in Figure 5.3-15. The existing view towards the onshore substations from each viewpoint are shown in the visualisations in Figures 5.3-30 to 5.3-37.

5.3.4 Impact Assessment

Summary of Effects and Mitigation

5.3.4.1 No significant effects have been identified on the seascape/landscape and visual receptors in relation to the OSPs or the modified offshore export cable route construction.

5.3.4.2 In relation to the Onshore Cable Route (and Landfall) construction **significant**, adverse, short-term and reversible, seascape/landscape effects are predicted to arise within localised areas of the cliff face and cliff top parts of the cliffs and North and South East Coast Landscape Character Area and Boyndie Bay Coastal Character Area. Elsewhere the landscape effects of the construction of the Onshore Cable Route would be **not significant**.

5.3.4.3 The visual effects of the construction of the Onshore Cable Route (and Landfall) may be **significant**, adverse, short-term and reversible in some views from Keilihll and Fintry. Views from other settlements would be **not significant**. There would also be 500

m – 2 km localised stretches of the A98, B9038, B9139, A97, B9121, A947, B9015 and the B9170 in the vicinity of the Onshore Cable Route Corridor where **significant**, adverse, short-term and reversible effects on views obtained by road users may arise during construction. The effect on views from localised stretches (500 m – 2 km) of long distance and local paths/cycle routes may also be **significant**, adverse, short-term and reversible in the vicinity of the Onshore Cable Route Corridor during construction. The effects during construction on other settlements and parts of the routes would be **not significant**.

5.3.4.4 During the construction of the onshore substations there may be **significant**, adverse, short-term and reversible landscape effects in the substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford in the Agricultural Heartlands Landscape Character Area. These landscape character effects would arise within approximately 1 km of the substations.

5.3.4.5 Within a similar area the visual effects of the onshore substations on residential and minor road visual receptors would also be **significant**, adverse, short-term and reversible during construction. This specifically includes views from properties in the vicinity of Upper Mains of Asleid, Burnside of Millbrex, North Millbrex, Smiddybank Farm, East Swanford, Blackpool, Bridge of Swanford, Upper Burnside and The Neuk and views from the minor roads immediately to the south, south-west, east and north of the sub-station sites.

5.3.4.6 Mitigation of the effects of the OnTI has included the following:

- Avoidance of effects on the landscape and visual resource through careful siting and routing of the components;
- Remediation of landscape and visual effects through reinstatement of landscape elements following construction;
- Reduction of landscape and visual effects through establishment of woodland and hedgerow planting around the onshore substations.

5.3.4.7 No significant effects have been identified on the seascape/landscape and visual receptors in relation to the operation of the OSPs and the modified offshore export cable route.

5.3.4.8 There will be no significant effects on the seascape/landscape and visual receptors in relation to the operation of the Onshore Cable Route (and landfall).

5.3.4.9 During its operation there may be a **significant**, adverse, long-term, reversible effect on the landscape character of the Agricultural Heartlands Landscape Character Area in the substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford in the Agricultural Heartlands Landscape Character Area. These landscape character effects would arise within approximately 1 km of the substations and beyond this effects on landscape character would be **not significant**.

5.3.4.10 Following a 15 year establishment period of the woodland and hedgerow planting these effects would become **not significant** except for the area of the site where the effect would remain significant.

5.3.4.11 During its operation in the initial period post construction there would be the potential for **significant**, adverse, long-term, reversible effects on views from properties in the vicinity of Upper Mains of Asleid, North Millbrex, Smiddybank Farm, East Swanford, Blackpool, Bridge of Swanford and Upper Burnside. The effect on views obtained by users of the minor roads immediately to the south, south-west and

east of the sub-station sites may also be **significant**, adverse, long-term and reversible. Beyond these areas the visual effects would be **not significant**.

5.3.4.12 Following 15 years of establishment of the woodland and hedgerow planting the effects of the operation of the onshore substations on the visual receptors would be **not significant** except for the effects on views from the residential properties in the vicinity of the Mains of Asleid, which may remain **significant**, adverse, long-term and reversible.

Table 5.3-7 Impact Assessment Summary

Effect	Receptor	Pre-mitigation Effect	Mitigation	Post-mitigation Effect
Construction & Decommissioning				
Landscape/ seascape effect of OSPs	Seascape/ landscape character receptors	Short-term, reversible, neutral and **not significant**	Not required	Short-term, reversible, neutral and **not significant**
Visual effect of OSPs	Visual receptors	Short-term, reversible, neutral and **not significant**	Not required	Short-term, reversible, neutral and **not significant**
Landscape/ seascape effect of modified offshore export cable route	Seascape/ landscape character receptors Boyne Bay and Boyndie Bay Coastal Character Areas	Short-term, reversible, adverse and **not significant**	Not required	Short-term, reversible, adverse and **not significant**
Landscape/ seascape effect of modified offshore export cable route	Seascape/ landscape character receptors other than Boyne Bay and Boyndie Bay Coastal Character Areas	Short-term, reversible, neutral and **not significant**	Not required	Short-term, reversible, neutral and **not significant**
Visual effect of modified offshore export cable route	Visual receptors in the Boyne Bay and Boyndie Bay	Short-term, reversible, adverse and **not significant**	Not required	Short-term, reversible, adverse and **not significant**
Visual effect of modified offshore export cable route	Visual receptors other than those in the Boyne Bay and Boyndie Bay	Short-term, reversible, neutral and **not significant**	Not required	Short-term, reversible, adverse and **not significant**

Effect	Receptor	Pre-mitigation Effect	Mitigation	Post-mitigation Effect
Effects of modified onshore cable route (and Landfall) on seascape/ landscape character and elements	The coast (Cliffs of North and South East Coast LCA and Boyndie Bay CCA) and the constituent landscape elements of beach, woodland, field boundaries (consumption dykes) and arable farmland	Significant, adverse	Route of onshore export cable route modified to avoid physical effects on characteristic woodlands and consumption dykes and/or use directional drilling to bore export cable under woodland. Reinstatement of consumption dykes and arable land following cable installation. Cable installation works would result in the partial loss or alteration of the cliff face but loss would not be permanent and restoration would be anticipated to occur within the medium term. Beach pit and any other excavations would be backfilled once the export cables are installed and to allow tides to wash over the excavations to consolidate the backfill.	**Not significant**, neutral, short-term, reversible effect on woodland. **Not significant**, neutral, short-term, reversible effects on beach, field boundaries (consumption dykes) and farmland. **Significant**, adverse, short-term reversible effects on localised areas (cliff face and cliff top) of the Cliffs and North and South East Coast LCA and Boyndie Bay CCA. **Not significant**, adverse, short-term reversible effects on character across all other parts of the Cliffs of North and South East Coast LCA and Boyndie Bay CCA.
Effects of modified onshore cable route (and landfall) on seascape/ landscape character and elements	Coastal Farmland (Western Coastal Farmland LCA) and the constituent landscape elements of Ancient Woodland, other woodland, field boundaries (consumption dykes and scrub hedgerows), arable farmland	Significant, adverse	Route of onshore export cable route modified to avoid physical effects on characteristic woodlands, consumption dykes and scrub hedgerows and/or use directional drilling to bore onshore cable under woodland. Reinstatement of consumption dykes, scrub hedgerows and arable land following cable installation.	**Not significant**, adverse, short-term, reversible.

Effect	Receptor	Pre-mitigation Effect	Mitigation	Post-mitigation Effect
Effects of modified onshore cable route (and landfall) on seascape/ landscape character and elements	River Valley (Deveron and Upper Ythan Valleys LCA) and the constituent landscape elements of semi-natural Ancient Woodland, Ancient Woodland, other woodland, farmland, field boundaries (consumption dykes, scrub hedgerows, field boundary trees)	Significant adverse	Route of onshore export cable route modified to avoid physical effects on characteristic woodlands, consumption dykes, scrub hedgerows and field boundary trees and/or use directional drilling to bore onshore cable under woodland. Reinstatement of consumption dykes, scrub hedgerows, field boundary trees and arable land following cable installation.	**Not significant**, adverse, short- term reversible
Effects of modified onshore cable route (and landfall) on seascape/ landscape character and elements	Agricultural Heartland (Agricultural Heartland LCA) and the constituent landscape elements of Ancient Woodland, other woodland, arable farmland, field boundaries (consumption dykes, scrub hedgerows and field boundary trees)	Significant, adverse	Route of onshore export cable route modified to avoid physical effects on characteristic woodlands, consumption dykes, scrub hedgerows and field boundary trees and/or use directional drilling to bore onshore cable under woodland. Reinstatement of consumption dykes, scrub hedgerows, field boundary trees and arable land following cable installation.	**Not significant**, adverse, short term, reversible
Effects of modified onshore export cable (and landfall) on visual amenity	Residents of settlements of Banff, Kirktown of Alvah, Whitehills	Not significant	Not required	**Not significant**, short-term, reversible. Adverse Banff and Whitehills, neutral Kirktown of Alvah.
Effects of modified onshore export cable (and landfall) on visual amenity	Residents of settlements of Inverboyndie and Cuminestown	Significant adverse	Onshore export cable route to be sited within part of modified onshore export cable route corridor to reduce/prevent visibility from Inverboyndie and Cuminestown.	**Not significant**, adverse, short-term, reversible
Effects of modified onshore export cable (and landfall) on visual amenity	Residents of settlements of Keilhill and Fintry	Significant adverse	Onshore export cable route to be sited within part of modified onshore export cable route corridor to reduce/prevent visibility from settlements.	**Significant**, adverse, short-term, reversible

Effect	Receptor	Pre-mitigation Effect	Mitigation	Post-mitigation Effect
Effects of modified onshore export cable (and landfall) on visual amenity	Motorists using A and B roads – A98, B9038, B9139, A97, B9121, A947, B9015 and B9170	**Significant** adverse in views from short sections of the routes of up to 1 km in length.	Route of modified onshore export cable realigned to avoid physical effect on woodland and/or use directional drilling to bore export cable under Burn of Boyndie. Reinstatement of consumption dykes and farmland following cable installation.	**Significant**, adverse, short-term, reversible visual effects from 500 m -2 km stretches of the routes. **Not significant** from the majority of the routes.
Effects of modified onshore export cable (and landfall) on visual amenity	Cyclists/walkers using long distance routes and local paths	**Significant** adverse in views from short sections of the routes of up to 1 km in length.	Route of modified onshore export cable realigned to avoid physical effect on woodland and/or use directional drilling to bore export cable under Burn of Boyndie. Backfill beach pit excavations and restore cliff face following cable installation. Reinstate consumption dykes and arable farmland following cable installation.	**Significant**, adverse, short-term, reversible visual effects from 500 m - 2 km stretches of the routes. **Not significant** from the majority of the routes.
Effects of modified onshore export cable (and landfall) on visual amenity	People taking part in other recreational activities – Inverboyndie beach users, Banff Links Caravan Park Visitors	**Significant** adverse	Route of modified onshore export cable realigned to reduce/prevent visibility from Caravan Park. Backfill beach pit excavations and restore cliff face following cable installation. Reinstate consumption dykes and arable farmland following cable installation.	**Significant**, adverse, short-term and reversible.
Effects of onshore substations on landscape character and elements	Agricultural Heartlands LCA	**Significant** in Area 1- substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford. **Not significant** in all other parts of the LCA	Careful siting of substations within the landscape context.	**Significant**, adverse, short-term, reversible in Area 1- substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford. **Not significant**, adverse/neutral, short-term, reversible in all other parts of the LCA

Effect	Receptor	Pre-mitigation Effect	Mitigation	Post-mitigation Effect
Visual effect of onshore substations	Residential properties in the vicinity of the substation sites and users of minor roads	Significant, adverse	Careful siting of substations in relation to visual receptors and their key views.	**Significant**, adverse, short-term, reversible effect on views from properties in the vicinity of Upper Mains of Asleid, Burnside of Millbrex, North Millbrex, Smiddybank Farm, East Swanford, Blackpool, Bridge of Swanford, Upper Burnside and The Neuk. **Significant**, adverse, short-term, revsersible effects on sections of the minor roads to the south, south-west, east and north of the substation sites. Effects on residents of other properties and users of other roads **not significant**, adverse/neutral, short-term, reversible.
Operation				
Landscape/ seascape effect of OSPs	Seascape/ landscape character receptors	Long-term, reversible, neutral and **not significant**	Not required	Long-term, reversible, neutral and **not significant**
Visual effect of OSPs	Visual receptors	Long-term, reversible, neutral and **not significant**	Not required	Long-term, reversible, neutral and **not significant**
Landscape/ seascape effect of modified offshore export cable route	Seascape/ landscape character receptors	Long-term, reversible, neutral and **not significant**	Not required	Long-term, reversible, neutral and **not significant**
Visual effect of modified offshore export cable route	Visual receptors	Long-term, reversible, neutral and **not significant**	Not required	Long-term, reversible, neutral and **not significant**

Effect	Receptor	Pre-mitigation Effect	Mitigation	Post-mitigation Effect
Effects of modified onshore cable route (and landfall) on seascape/ landscape character and elements	Landscape/ seascape character areas along the cable route and constituent landscape elements of beach, woodland, field boundaries (consumption dykes, scrub hedgerows and field boundary trees) and farm land	Not significant	Avoidance of woodland removal. Reinstatement of ground cover and other vegetation and establishment of this over initial period following construction. Sensitive siting of kiosks.	**Not significant**, adverse, long term and reversible
Effects of modified onshore export cable (and landfall) on visual amenity	Residents of settlements, motorists using A and B roads, walkers and cyclists using long distance cycle routes and paths	Not significant	Avoidance of woodland removal. Reinstatement of ground cover and other vegetation and establishment of this over initial period following construction. Sensitive siting of kiosks.	**Not significant**, adverse, long term and reversible
Effects of modified onshore substations on landscape character and elements	Agricultural Heartlands LCA	**Significant** in Area 1- substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford. **Not significant** in all other parts of the LCA	Careful siting of substations in relation to visual receptors and their key views. Establishment of extensive woodland planting around the site.	Prior to woodland and hedgerows 15year establishment -**Significant**, adverse, long-term, reversible in Area 1- substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford. **Not significant**, adverse/ neutral, long-term, reversible in all other parts of the LCA. Post woodland and hedgerows 15 year establishment – **Not significant**, adverse/neutral, long-term, reversible in all parts of the LCA except for the site itself.

Effect	Receptor	Pre-mitigation Effect	Mitigation	Post-mitigation Effect
Visual effect of onshore substations	Views from properties in the vicinity of the substations sites. Views obtained by users of local minor roads.	**Significant,** adverse, long term, reversible effects on residents of properties in the vicinity of the substations sites. **Significant**, adverse, long-term, reversible effects on users of sections of the minor roads around the substation sites. Effects on residents of more distant properties and users of other roads **not significant**, adverse/ neutral, long-term, reversible.	Careful siting of substations in relation to visual receptors and their key views. Establishment of extensive woodland planting around the site.	Prior to woodland and hedgerows 15year establishment – **Significant**, adverse, long-term, reversible effect on views obtained by residents of the properties in the vicinity of Upper Mains of Asleid, North Millbrex, Smiddybank Farm, East Swanford, Blackpool, Bridge of Swanford and Upper Burnside. **Significant**, adverse, long-term, reversible effects on views obtained by users of the minor roads immediately to the south, south-west and east of the Onshore Substation sites. Effects on residents of other properties and users of roads not **significant**, adverse/ neutral, long-term, reversible. Post woodland and hedgerows 15year establishment – **Significant**, adverse, long-term, reversible effect on views from properties in the vicinity of Upper Mains of Asleid. Effects on residents of other properties and users of roads **not significant**, adverse long-term, reversible.

Introduction to Impact Assessment

5.3.4.13 The SLVIA considers the effect on the seascape and landscape character and the effect on visual amenity (views) of the modified TI based on the Rochdale Envelope parameters set out in Section 5.3.2.

5.3.4.14 The SLVIA methodology is described in full in Technical Appendix 5.3 A: SLVIA Methodology. The baseline SL&V receptors relating to the Offshore TI and Onshore TI is described in Section 5.3.3. The SLVIA is informed by photomontages, panoramic photographs and plan / map figures contained in Volume 4: Moray Offshore Wind Farm Modified TI SLVIA Figures.

5.3.4.15 The SLVIA covers the construction, operational phase and decommissioning of the OSPs, modified offshore export cable, onshore export cable (and modified export cable landfall) and onshore substations.

EIA Methodology

5.3.4.16 This section provides a summary of the methodology used to carry out the SLVIA, with the full methodology being described in Technical Appendix 5.3A: SLVIA Methodology. This methodology has been specifically devised by OPEN for SLVIA and it accords with the 'Guidelines for the Assessment of Landscape and Visual Impacts: Third Edition' (GLVIA3).

5.3.4.17 The objective of the assessment of the modified TI is to predict the significant effects on the SL&V resource. In accordance with the EIA Regulations, the LVIA effects are assessed to be either significant or not significant.

5.3.4.18 The significance of effects is assessed through a combination of two considerations – the sensitivity to change of the landscape or visual receptor and the magnitude of change that will result from the modified TI.

Sensitivity to Change

5.3.4.19 Sensitivity is an expression of the ability of a landscape or visual receptor to accommodate the modified TI. The sensitivity is determined through a combination of the value of the receptor, and the susceptibility to change of the receptor to the modified TI.

5.3.4.20 Levels of sensitivity - high, medium to high, medium, medium to low, low and negligible- are applied in order that the judgement used in the process of assessment is made clear. The criteria used to determine sensitivity differ for the effects on landscape receptors and visual receptors, as well as the cumulative effects on both. These criteria are explained in full in Technical Appendix 5.3 A.

Magnitude of Change

5.3.4.21 Magnitude of change is an expression of the extent of the effect on the landscape and visual receptors that will result from the introduction of the modified TI. The magnitude of change is assessed in terms of the size and scale of the effect and the geographical extent of the area influenced.

5.3.4.22 Levels of magnitude of change - high, medium to high, medium, medium to low and low - are applied in order that the judgement used in the process of assessment is made clear. The criteria used to determine magnitude of change differ for the effects on landscape receptors and visual receptors, as well as the cumulative effects on both. These criteria are explained in full in Technical Appendix 5.3 A.

Significance of Effect

5.3.4.23 In accordance with GLVIA3, OPEN's methodology requires the application of reasoned professional judgement. Although it is not reliant on the use of a matrix, the matrix in Table 5.3-7 has been included to illustrate how combinations of the ratings for sensitivity and magnitude of change can give rise to significant effects, as well as to give an understanding of the threshold at which significant effects may arise.

Table 5.3-7 Illustrative Matrix of Significant Effects

Magnitude Sensitivity	High	Medium-high	Medium	Medium-low	Low	Negligible
High	Significant	Significant	Significant	Significant or not significant	Not significant	Not significant
Medium-high	Significant	Significant	Significant or not significant	Significant or not significant	Not significant	Not significant
Medium	Significant	Significant or not significant	Significant or not significant	Not significant	Not significant	Not significant
Medium-low	Significant or not significant	Significant or not significant	Not significant	Not significant	Not significant	Not significant
Low	Significant or not significant	Not significant	Not significant	Not significant	Not significant	Not significant

5.3.4.24 Effects that are assessed within the dark grey boxes in the matrix are assessed to be significant in terms of the requirements of the EIA Regulations. Those effects that are assessed within the light grey boxes may be significant, or not significant, depending on the specific factors and effect that is assessed in respect of a particular landscape or visual receptor. In accordance with GLVIA3, experienced professional judgement is applied to the assessment of all effects and reasoned justification is presented in respect of the findings of each case. The effects of the modified TI are of variable duration, and are assessed as short-term or long-term, and either result in permanent or reversible effects.

Nature of the Effect

5.3.4.25 The nature of effect refers to whether the effects of the modified TI are positive, neutral or adverse. Effects are classified as positive, neutral or adverse according to the following definitions:

- Positive effects contribute to the landscape and visual resource through the enhancement of desirable characteristics or the introduction of new, positive attributes. 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 modified TI neither contributes to nor detracts from the SL&V resource or where the effects are so limited that the change is hardly noticeable. A change to the SL&V 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 or weaken the SL&V resource through the introduction of elements that contrast in a detrimental way with the existing characteristics of the SL&V resource, or through the removal of elements that are key in its positive characterisation.

Assessment of Cumulative Effects

5.3.4.26 The objective of the Cumulative Landscape and Visual Impact Assessment (CLVIA) is to describe, visually represent and assess the ways in which the Modified TI will have additional effects when considered together with other existing, consented or proposed developments and to identify related significant cumulative effects arising from the modified TI. The guiding principle in preparing the CLVIA is to focus on the likely significant effects and in particular those which are likely to influence the outcome of the consenting process, in accordance with the EIA Regulations. The cumulative effect of the modified TI is considered in Section 5.3.5.

Embedded Mitigation Measures

Onshore Export Cable

5.3.4.27 Embedded mitigation has been applied in the design and routing of the modified onshore export cable route to minimise the effects of construction on specific landscape features, particularly valued landscapes or features, including SSSIs, GDLs, ancient woodland and areas of surface water. Valued landscape features were identified using GIS datasets for valued natural heritage features, designations, OS Vectormap landscape features, aerial imagery and field survey.

5.3.4.28 A route design workshop was held to consider sections of the modified onshore export cable route corridor in detail and identify key physical landscape features and visual receptors that the modified onshore export cable route corridor should avoid, whilst being routed within areas of suitable land option. An optimised modified onshore export cable route corridor was selected to avoid, in particular, Duff House GDL and ancient woodlands within the Deveron Valley. The modified onshore export cable route corridor has been designed to cross the Deveron Valley to the south to avoid Duff House GDL and associated woodlands, taking a route across the valley with the least amount of woodland present. The modified onshore export cable route corridor has been sited and designed with a strong presumption against removing areas of ancient semi-natural woodland or plantations on ancient woodland sites.

5.3.4.29 The assessment of residual effects of the modified onshore export cable route corridor assumes that the modified onshore export cable would be routed around areas of woodland to avoid physical effects on characteristic woodlands within the modified onshore export cable route corridor. Directional drilling will also be used selectively to bore the export cable under sensitive rivers/burns with associated woodlands, to avoid physical effects on characteristic woodlands.

5.3.4.30 The modified onshore export cable route will also be sited to avoid, where possible, consumption dykes, scrub hedgerows and field boundary trees. In certain areas where the modified onshore export cable route will not be able to avoid physical disturbance to linear features such as consumption dykes and scrub hedgerows, these features will be reinstated following cable installation.

5.3.4.31 The construction of the cable route will give due consideration to the following standards, recommendations and guidelines:

- BS 5837: 2012. Trees in Relation to Design, Demolition and Construction; and
- NJUG Publication Volume 4 (2007). Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees.

Onshore Substations

Site Selection

5.3.4.32 A landscape and visual site selection review of potential sites for onshore substations near New Deer in Aberdeenshire was undertaken as part of initial EIA work to inform MORL's site selection process. The review included a comparison of the likely landscape and visual suitability of several potential onshore substation sites. The landscape and visual review concluded that aspects of the onshore substation area selected for the indicative substation location have potential to integrate the onshore substations within the landscape, including the large scale of the agricultural fields; the rolling landform which has the potential to provide some enclosure of the onshore substations within its gentle undulations; frequent shelterbelt woodlands, particularly along the Burn of Asleid, which have potential to provide screening and containment of the onshore substations; and the visual screening/main orientation of many of the closest residential properties.

Landscape Mitigation Proposal

5.3.4.33 The onshore substations have been sited according to specific guidance in the LCASSD for the Agricultural Heartlands LCA. A site analysis of the onshore substation area and surrounding local landscape has been undertaken and is illustrated in Figure 5.3-16 and described in the landscape baseline (Section 5.3.3). The site analysis identified several key characteristics of the local landscape around the onshore substation area that are likely to reduce the effect of the onshore substations. The agricultural landscape is interspersed with several woodland shelterbelts and blocks of coniferous woodland, particularly along the Burn of Asleid and adjacent to minor road on the eastern boundary of the onshore substation area, which will help to screen views and integrate the onshore substations in the landscape. The rolling landform rises slightly to the east/north-east of the onshore substation area, up to the 110 m contour, which help to contain views from the north and east. The indicative substations location is sited next to large scale electrical pylons and overhead lines, which influence the local landscape character of the onshore substation area and the wider skyline.

5.3.4.34 Native woodland planting is proposed within the substations area to further integrate the onshore substations within the agricultural landscape and replicate copses traditionally planted for shelter. The baseline woodland context was reviewed (Figure 5.3-14), which identified the existing pattern of woodland within the surrounding landscape, which includes shelterbelts, woodland blocks/plantations and riparian woodlands along rivers and burns. Several woodland design concepts were considered for the site based on these characteristic woodlands, as shown in Figure 5.3-28, including shelterbelt woodlands, riparian woodland, woodland blocks and a full woodland envelope.

5.3.4.35 The landscape proposal (Figure 5.3-29) draws on elements of these concepts and proposes native tree planting to enhance and connect areas of shelterbelt woodland to the west along the Burn of Asleid and to connect small stands of existing shelterbelts on field boundaries at the eastern edge of the substations area. Landscape mitigation proposals for the onshore substations are designed according to specific guidance in the LCASSD for the Agricultural Heartlands LCA, which recommend that new development can be integrated by planting native trees to replicate copses traditionally planted for shelter. Several main areas of native woodland are proposed in the landscape mitigation proposals:

- Northern side of overhead electrical line on slopes of Burn of Asleid to enhance areas of existing shelterbelt woodland along the Burn and provide screening in views from the north;
- Western side of the onshore substations along the Burn of Asleid to connect and enhance areas of existing shelterbelt woodland along the Burn and provide screening in views from the west;
- Southern and eastern sides of the onshore substations to form new characteristic shelterbelt woodlands around onshore substations and screen views from the south and east;

5.3.4.36 Further woodland shelterbelts are also proposed along the field boundaries to the north and south of the substations area to provide further screening and improve the integration of the onshore substations within the landscape. Woodland planting proposals will enhance the characteristic native woodland evident in the Agricultural Heartlands LCA and assist with improving the integration of the onshore substations within a natural envelope. Planting is proposed at high density, with both hardy native pioneer species, including Alder, Ash, Birch, Hazel and Poplar, together with slower growing species such as Oak and Beech and occasional Scots Pine, to provide some year-round screening and to replicate and expand woodland shelterbelts in the existing environment. Indicative visual representations of the woodland proposals at 15 years post construction, with an average tree height of 6 – 10m, are illustrated in the viewpoint figures (Figures 5.3-30 to 5.3-37) and these are used to inform the assessment of residual effects at 15 years post construction.

5.3.4.37 In addition to the main areas of woodland planting, mixed native deciduous hedgerow planting will be undertaken along the field boundaries of the substations areas to provide further screening in views from the local minor road network. Hedgerows also provide a habitat link to the larger woodland areas. Fields to the east and south of the substations area could be retained for agricultural use.

5.3.4.38 Areas of marshy grassland / moss are proposed to the west of the substations area at lower elevations along the Burn of Asleid, where the wetter ground conditions and appropriate land management may encourage wetter grassland habitats. Areas of moss and marshy grassland are present nearby at Moss of Swanford to the west along the Burn of Swanford/Burn of Asleid. Scattered riparian tree planting is proposed within these areas along the Burn of Asleid to enhance scattered existing riparian trees along the burn. A sustainable drainage system (SuDS) will be utilised at the site, with suitable methods to be subject to detailed design, but likely to include a retention system by providing storage within a SuDs pond/retention basin adjacent to the Burn of Asleid.

Impact Assessment – Modified OfTI

5.3.4.39 The Rochdale Envelope parameters considered in the OfTI SLVIA are described in Section 5.3.2. The OfTI SLVIA considers the effects of the construction, operation and decommissioning of the offshore substation platforms (OSPs) and offshore export cable on seascape/landscape character and visual amenity.

5.3.4.40 Marine Scotland's Offshore Transmission Works Scoping Response (MORL ES, Technical Appendix 1.3 B) confirmed (page 34) that '*landscape and visual interests can be scoped out of the EIA for the offshore cable works*' – as indicated in Section 5-3-8 (page 135) of the Offshore Transmission Infrastructure Scoping Report (MORL, 2011). A summary assessment of the SL&V effects of the modified offshore export cable was nevertheless provided in the MORL ES (MORL, 2012) in the interests of completeness and this approach is adopted for the assessment of the modified OfTI.

Effects of Offshore Substation Platforms (OSPs) on Seascape/Landscape Character

5.3.4.41 All National Seascape Units/Types and CCAs within Caithness are located at a minimum distance of 23.4 km from the assumed indicative location of OSP 1. All National Seascape Units/Types and CCAs within Moray and Aberdeenshire are located at a minimum distance of 46.4 km from the assumed indicative location of OSP 2.

Construction and Decommissioning

5.3.4.42 During construction and decommissioning the effects will be reversible and will arise from OSP installation vessels and construction equipment located at long distance from the coastline. During operation, the effects will result from the visibility of OSPs on the perception of the seascape/landscape character, but the OSPs are located at long distances offshore from all coastal character receptors and terrestrial landscape types, and will appear as a relatively small single object on the skyline at distance, amongst the three consented wind farms and oil and gas platforms.

5.3.4.43 During construction and decommissioning, the magnitude of change resulting from the OSPs on all seascape/landscape receptors identified in the baseline (Section 5.3.3) is assessed as being low-negligible and the effect of the OSPs on all seascape/landscape receptors is assessed as short-term, reversible, neutral and not significant.

Operation

5.3.4.44 During operation, the magnitude of change resulting from the OSPs on all seascape/landscape receptors identified in the baseline (Section 5.3.3) is assessed as being low-negligible and the effect of the OSPs on all seascape/landscape receptors is assessed as long-term, reversible, neutral and not significant.

Effects of Offshore Substation Platforms (OSPs) on Visual Amenity

5.3.4.45 The SLVIA within the MORL ES (MORL, 2012) assessed the effect of the addition of eight OSPs (MORL ES, Chapter 11.4) in the context of the three consented wind farm sites. The modified TI will include only two OSPs to replace the eight former OSPs assessed in the MORL ES (MORL, 2012) (not in addition). The two OSPs will be located within the three consented wind farm sites, with indicative locations assumed close to the site boundaries nearest Caithness (OSP 1) and Moray/Aberdeenshire (OSP 2), where they would theoretically be at their most visible and therefore represent a worst-case scenario in terms of SL&V effects (Figure 5.3-2). Indicative locations for these two OSPs are the same as the assumed locations for the two closest OSPs in the MORL ES (MORL, 2012) and have the same dimensions and colouring.

5.3.4.46 Further consideration of the effect of the OSPs as part of the assessment for the modified TI is provided to consider any reduced, different or additional visual impacts from those previously assessed in respect of the proposed OSPs in the context of the three consented wind farms.

Construction and Decommissioning

5.3.4.47 During construction and decommissioning, visual effects are likely to arise from the OSP installation vessels used for construction and decommissioning of the OSPs. Illustrative photographs of OSP installation vessels are shown in Figure 5.3-2 to indicate the types of vessel which may be visible during the OSP construction period.

5.3.4.48 The effect of the installation of OSPs on visual receptors will be short-term and reversible during the construction period, resulting from views of the installation vessels constructing the OSPs at sea and movements to and from port. The construction of the OSPs will result in a slight increase in occurrence of vessel sightings at sea during the construction period, however OSP installation vessels constructing the OSPs will be located at long distances, with a minimum distance from the nearest point in Caithness to OSP 1 of 23.4km, and a minimum distance from the nearest point in Moray/Aberdeenshire to OSP 2 of 46.4 km. The visual effect of installation vessels is diminished at such long distance offshore from visual receptors on the coastline and terrestrial parts of Caithness and Moray/Aberdeenshire.

5.3.4.49 Views of the OSP installation vessels may occur at shorter range during vessel movements to and from port, but vessels will be seen within a seascape in which large sea-faring vessels are a common feature in the baseline SL&V environment of the Moray Firth.

5.3.4.50 During construction and decommissioning, the magnitude of change resulting from the OSPs on all views experienced from visual receptors identified in the visual baseline (Section 5.3.3) is assessed as being low-negligible and the effect of the OSPs on all visual receptors is assessed as short-term, reversible, neutral and **not significant**.

Operation

5.3.4.51 During operation, visual effects will result from the two OSPs, viewed at long distances offshore in the context of the proposed three consented wind farm sites[2]. OSP 1 is located approximately 23.4 km from the nearest point of the Caithness/Sutherland coast and OSP 2 is located approximately 46.4 km from the nearest point of the Moray/Aberdeenshire coast.

5.3.4.52 The effect of the OSPs on all SL&V receptors during operation was assessed as **not significant** in the MORL ES (MORL, 2012) primarily because the OSPs would be viewed at long distances offshore, in the context of the three consented wind farm sites and existing oil rigs which appear similar.

5.3.4.53 The principal change to the effects assessed in the MORL ES (MORL, 2012) results from the omission of six OSPs from within the three consented wind farms, constituting a reduced effect principally because less OSPs will be viewed within the three consented wind farms than considered in the MORL ES (MORL, 2012).

5.3.4.54 OSP 1 is likely to be visible in views from the Caithness/Sutherland coastline, however OSP 2 is unlikely to be visible at all from this coastline. OSP 2 is likely to be visible (in periods of excellent visibility) from the Moray/Aberdeenshire coastlines, however OSP 1 is unlikely to be visible at all from this coastline. In each case, the more distant OSP is unlikely to be visible in views due to the intervening distance, earth curvature and relative infrequency of excellent visibility conditions. Each OSP will therefore appear as a relatively small single object from each coastline, on the skyline at distance, amongst the three consented wind farms. The appearance of the three consented wind farms will be simpler and less complex with a single OSP visible amongst the array of offshore wind turbines within the three consented wind farms.

[2] As per the MORL ES, the assessment does not consider the effect of adding the OSPs to the existing baseline on their own, without the three consented wind farm sites, as this would represent an unrealistic scenario.

5.3.4.55 Due to the long distance of the OSPs offshore from visual receptors within Caithness/Sutherland and Moray/Aberdeenshire, the effect of the OSPs during operation is substantially diminished by distance. The long distance of the OSPs offshore will also result in the visibility frequency being relatively low and the OSPs will only be visible in relatively infrequent periods with excellent visibility conditions.

5.3.4.56 During operation, the magnitude of change resulting from the OSPs on all views experienced from visual receptors identified in the visual baseline (Section 5.3.3) is assessed as being low-negligible and the effect of the OSPs on all visual receptors is assessed as long-term, reversible, neutral and **not significant**.

Effects of Modified Offshore Export Cable Route on Seascape/Landscape Character

5.3.4.57 All National Seascape Units/Types and CCAs within Caithness/Sutherland are located at a minimum distance of 37.5 km from the modified offshore export cable route corridor. The majority of the modified offshore export cable route corridor is also located at long distances from National Seascape Units/Types and CCAs within Moray/Aberdeenshire. The modified onshore export cable route corridor is in closer proximity to the Moray/Aberdeenshire coast near the modified export cable landfall at Inverboyndie Bay. In this area, the modified offshore export cable route corridor is located immediately offshore from the Rocky Coastline with Open Sea Views National Seascape Type and the Sandend Bay, Boyne Bay and Boyndie Bay CCAs.

Construction and Decommissioning

5.3.4.58 During construction and decommissioning the effects will be reversible and may arise from the visibility of cable laying vessels operating during the construction and decommissioning phases on the perceived character of the coast.

5.3.4.59 The majority of the modified offshore export cable route corridor is located at considerable distance offshore from the Moray and Aberdeenshire coast and at such long distances, visibility of the cable laying vessels is unlikely to result in any notable changes to the existing coastal character. Large sea–faring vessels are a common feature on the skyline in the baseline seascape character of the Moray Firth and vessels used for the construction and decommissioning of the modified offshore export cable will be similar to large vessels that are part of the baseline seascape character.

5.3.4.60 Cable laying vessels for the modified offshore export cable will only influence the perceived character of the coastline when operating in the closest areas of the modified offshore export cable route corridor to the coast, immediately offshore from Boyndie Bay and Boyne Bay. Cable laying vessel working days in these closest areas of the modified offshore export cable route corridor from the coast will be for a reversible and relatively short duration during the construction period.

5.3.4.61 The magnitude of change resulting from the construction and decommissioning of the modified offshore export cable on the Boyne Bay and Boyndie Bay CCAs is assessed as low. The effect resulting from the construction and decommissioning of the offshore export route on the Boyne Bay and Boyndie Bay CCAs is assessed as short–term, reversible, adverse and **not significant**.

5.3.4.62 The magnitude of change resulting from the construction and decommissioning of the modified offshore export cable on all other seascape/landscape receptors identified in the baseline (Section 5.3.3.3) is assessed as negligible. The effect resulting from the construction and decommissioning of the offshore export route on

all seascape/landscape receptors other than on the Boyne Bay and Boyndie Bay CCA is assessed as short–term, reversible, neutral and **not significant**.

Operation

5.3.4.63 The modified offshore export cable between Inverboyndie Bay and the converter OSPs will be installed in trenches in the sea bed and will not be a visible element of the modified TI during the operational period. The operational effects of the modified offshore export cable will be limited to occasional maintenance visits from appropriate sea–faring maintenance vessels, which will be similar to large sea faring vessels in the baseline seascape and visual environment.

5.3.4.64 The magnitude of change resulting from modified offshore export cable on all seascape/landscape receptors is assessed as negligible during the operational period. The effect resulting from the operation of the modified offshore export cable on all seascape/landscape receptors is assessed as long-term (during the operational life of the three consented wind farm sites), reversible, neutral and **not significant**.

Effects of Modified Offshore Export Cable on Visual Amenity

Construction and Decommissioning

5.3.4.65 The SL&V effect of the modified offshore export cable installation will be caused by cable laying vessels operating during the construction and decommissioning phases. Cable laying vessels for the modified offshore export cable will be visible between Inverboyndie Bay and the OSPs within the three consented wind farm sites. The majority of the modified offshore export cable route corridor is located at considerable distance offshore from the Moray and Aberdeenshire coast. Cable laying vessels will be visible within the modified offshore export cable route corridor for up to 240 cable laying vessel working days over a two year period. Movements to and from port will be dependent on the port location, which has not yet been selected, but the Rochdale Envelope for the modified offshore export cable is based on 40 vessel movements of the main installation to and from the construction port and site, together with construction support vessel movements.

5.3.4.66 Large sea–faring vessels are a common feature on the skyline in the baseline seascape and visual environment of the Moray Firth. Vessels used for the construction and decommissioning of the modified offshore export cable will be similar to large sea faring vessels that are frequently visible in the baseline seascape and visual environment. Movements of cable laying vessels in Inverboyndie Bay during installation of the offshore export route modified export cable landfall will be more visible to receptors onshore, but will be viewed for a short duration.

5.3.4.67 The magnitude of change resulting from the construction and decommissioning of the modified offshore export cable on visual receptors within the Boyne Bay and Boyndie Bay areas is assessed as medium-low. The effect resulting from the construction and decommissioning of the offshore export route on views experienced from visual receptors in the Boyne Bay and Boyndie Bay areas is assessed as short–term, reversible, adverse and **not significant**.

5.3.4.68 The magnitude of change resulting from the construction and decommissioning of the modified offshore export cable on all other visual receptors identified in the visual baseline (Section 5.3.3.4) is assessed as low to negligible. The effect resulting from the construction and decommissioning of the modified offshore export cable on views experienced from all other visual receptors identified in the visual baseline is assessed as short–term, reversible, neutral and **not significant**.

Operation

5.3.4.69 The modified offshore export cable between Inverboyndie Bay and the converter OSPs will be installed in trenches in the sea bed and will not be a visible element of the modified TI during the operational period. The operational effects of the modified offshore export cable will be limited to occasional maintenance visits from appropriate sea–faring maintenance vessels, which will be similar to large sea faring vessels in the baseline seascape and visual environment.

5.3.4.70 The magnitude of change resulting from modified offshore export cable on all views experienced from visual receptors is assessed as negligible during the operational period. The effect resulting from the operation of modified offshore export cable on all visual receptors is assessed as long-term (during the operational life of the three consented wind farm sites), reversible, neutral and **not significant**.

Impact Assessment – Modified OnTI

5.3.4.71 The Rochdale Envelope considered in the modified OnTI SLVIA is described in Section 5.3.2. The modified OnTI SLVIA considers the effects of the construction, operation and decommissioning of the onshore export cable (including modified export cable landfall) and onshore substations on seascape/landscape character and visual amenity.

Effects of Modified Onshore Export Cable Route (and Landfall) on Seascape/Landscape Character and Elements

Construction

5.3.4.72 The effect of the construction of the onshore export cable on seascape/landscape character and elements is assessed in Tables 5.3-8 – 5.3-11 relating to each section of the modified onshore export cable route corridor. Sections of the route are mapped in detail according to each LCA along the modified onshore export cable route corridor (Figures 5.3-18 to 5.3-22). The main landscape elements within each LCA section are identified and an assessment of their sensitivity and the potential effect of the onshore export cable construction, before mitigation. Appropriate mitigation measures are identified and the residual effect on each landscape element and the overall character of each LCA is assessed assuming adoption of mitigation measures.

5.3.4.73 The Rochdale Envelope for the SLVIA assumes that the modified export cable landfall at Inverboyndie beach will be installed in four separate 4 m wide beach pit trenches (one for each subsea cable, split into trefoil arrangement) extended down to the low tide level (with the sides of the pit typically temporarily supported). The installation methods that will be used for the modified export cable landfall installation will be open trenching and horizontal directional drilling (HDD). A description of these installation methods is provided in Chapter 2.2 (Project Description). Illustrative photographs of this type of modified export cable landfall construction are shown in Figure 5.3-4.

Section 1: The Coast (Cliffs of the North and South East Coast LCA)

Table 5.3-8 Modified Onshore Export Cable Route Assessment: Landscape Character & Elements (Section 1)

Landscape Element	Sensitivity to change	Potential Effect on Landscape Element/Character	Mitigation Measures	Residual Magnitude of Change	Significance of Residual Effect[3]
Section 1: The Coast (Cliffs of the North and South East Coast LCA and Boyndie Bay CCA)					
Beach:					
Inverboyndie Beach	Medium-low (beach is relatively easy to restore)	Medium or high magnitude and potentially **significant** due to physical effect resulting from disturbance to beach resulting from modified export cable landfall installation.	Beach pit and any other excavations would be backfilled once the export cables are installed and allow tides to wash over the excavations to consolidate the backfill.	Medium	**Not significant**, adverse, short-term, reversible.
Woodland:					
C1 - Burn of Boyndie C2 - Black Hillocks Shelterbelt	Medium-high	High magnitude and potentially **significant** due to physical effect resulting from loss of characteristic deciduous riparian woodland.	Modified onshore export cable route to avoid physical effect on woodland and/or use directional drilling to bore export cable under woodland wherever possible.	Negligible	**Not significant**, neutral, short-term, reversible.
Field Boundaries:					
Consumption dykes	Medium-high	High magnitude and potentially **significant** due to physical effect resulting from loss of characteristic consumption dyke features.	Modified onshore export cable route to avoid consumption dykes and/or reinstate following cable installation.	Low	**Not significant**, adverse, short-term, reversible
Farmland:					
Arable farmland	Low	Medium-high magnitude and potentially **significant** due to physical effect resulting from loss of characteristic arable farmland.	Reinstate arable farmland following cable installation.	Medium	**Not significant**, adverse, short-term, reversible

[3] In tables 5.3.8 – 5.3.11, residual magnitude of change and significance of effect assume mitigation measures have been adopted.

Landscape Character:					
Cliffs of the North and South East Coast LCA	High	High magnitude and potentially **significant** due to effects resulting from loss of characteristic deciduous woodlands, consumption dykes and arable land.	Modified onshore export cable route to avoid physical effects on characteristic woodlands and consumption dykes and/or use directional drilling to bore export cable under woodland. Reinstate consumption dykes and arable land following cable installation. Cable installation would result in the partial loss or alteration of the cliff face but loss would not be permanent and restoration would be anticipated to occur within the medium term.	Medium-high within the immediate locale of the cliff face and cliff top, medium across the beach and medium to low across the adjacent farmland.	**Significant**, adverse, short-term, reversible effects over a localised area including the cliff face and cliff top, lasting for the short-term duration of the construction works. The remaining areas will undergo **not significant** effects.
Boyndie Bay CCA	High	Medium or high magnitude and potentially **significant** due to physical effect resulting from disturbance to Inverboyndie Beach resulting from modified export cable landfall installation and alteration to the cliff edge resulting from excavation for modified onshore export cable route.	Beach pit and any other excavations would be backfilled once the export cables are installed and allow tides to wash over the excavations to consolidate the backfill. Cable installation would result in the partial loss or alteration of the cliff face but loss would not be permanent and restoration would be anticipated to occur within the medium term.	Medium-high within the immediate locale of the cliff face and cliff top, medium across the beach and medium to low across the adjacent farmland.	**Significant**, adverse, short-term, reversible effects over a localised area including the cliff face and cliff top, lasting for the short-term duration of the construction works. The remaining areas will undergo **not significant** effects.

Section 1 and 2: Coastal Farmland (Western Coastal Farmland LCA)

Table 5.3-9 Modified Onshore Export Cable Route Assessment: Landscape Character & Elements (Sections 1 & 2)

Landscape Element	Sensitivity to change	Potential Effect	Mitigation Measures	Residual Magnitude of Change	Significance of Residual Effect
Section 1 and 2: Coastal Farmland (Western Coastal Farmland LCA)					
Ancient Woodland:					
CF2 - Hills of Boyndie CF3 - Coach Brae CF4 - Hill of Alvah CF5 - Claret Brae	High	High magnitude and potentially **significant** due to physical effect resulting from loss of ancient woodland.	Modified onshore export cable route to avoid physical effect on woodland or use directional drilling to bore export cable under woodland.	Negligible	**Not significant**, adverse, short-term, reversible.
Woodland:					
CF1 - Cuttle Rig	Medium	High magnitude and potentially **significant** due to physical effect resulting from loss of characteristic deciduous scrub woodland.	Modified onshore export cable route to avoid physical effect on woodland.	Negligible	**Not significant**, adverse, short-term, reversible.
Field Boundaries:					
Consumption dykes	Medium-high	High magnitude and potentially **significant** due to physical effect resulting from loss of characteristic consumption dyke features.	Modified onshore export cable route to avoid consumption dykes and/or reinstate following cable installation.	Low	**Not significant**, adverse, short-term, reversible
Scrub hedgerows	Medium-low	High magnitude and potentially **significant** due to physical effect resulting from loss of characteristic scrub hedgerows.	Modified onshore export cable route to avoid scrub hedgerow and/or reinstate following cable installation.	Low	**Not significant**, adverse, short-term, reversible
Farmland:					
Arable farmland	Low	Medium-high magnitude and potentially **significant** due to physical effect resulting from loss of characteristic arable farmland.	Reinstate arable farmland following cable installation.	Medium	**Not significant**, adverse, short-term, reversible
Landscape Character:					
Western Coastal Farmland LCA	Medium	High magnitude and potentially **significant** due to effects resulting from loss of characteristic ancient woodlands, scrub hedgerows, consumption dykes and arable land.	Modified onshore export cable route to avoid physical effects on characteristic woodlands, consumption dykes and scrub hedgerows and/or use directional drilling to bore export cable under woodland. Reinstate consumption dykes, scrub hedgerows and arable land following cable installation.	Low	**Not significant**, adverse, short-term, reversible

Section 2: River Valley (Deveron and Upper Ythan Valleys LCA)

Table 5.3-10 Modified Onshore Export Cable Route Assessment: Landscape Character & Elements (Section 2)

Landscape Element	Sensitivity to change	Potential Effect	Mitigation Measures	Residual Magnitude of Change	Significance of Residual Effect
Section 2: River Valley (Deveron and Upper Ythan Valleys LCA)					
Semi-natural Ancient Woodland:					
RV6 - Den of Inverichnie	High	High magnitude and potentially **significant** due to physical effect resulting from loss of semi-natural ancient woodland.	Modified onshore export cable route to avoid physical effect on woodland or use directional drilling to bore export cable under woodland.	Negligible	**Not significant**, adverse, short-term, reversible.
Ancient Woodland:					
RV5 - Lower Wanford	High	High magnitude and potentially **significant** due to physical effect resulting from loss of ancient woodland.	Modified onshore export cable route to avoid physical effect on woodland or use directional drilling to bore export cable under woodland.	Negligible	**Not significant**, adverse, short-term, reversible.
Woodland:					
RV1 - Govel Hill RV2 - Berryton Cottage RV3 - Cormack's Hillock RV4 - Inverichnie	Medium-high	High magnitude and potentially **significant** due to physical effect resulting from loss of woodland.	Modified onshore export cable route to avoid physical effect on woodland or use directional drilling to bore export cable under woodland.	Negligible	**Not significant**, adverse, short-term, reversible.
Farmland:					
Arable / Mixed Agriculture	Low	Medium-high magnitude and potentially **significant** due to physical effect resulting from loss of characteristic arable farmland.	Reinstate arable farmland following cable installation.	Medium	**Not significant**, adverse, short-term, reversible
Field Boundaries:					
Consumption dykes	Medium-high	High magnitude and potentially **significant** due to physical effect resulting from loss of characteristic consumption dyke features.	Modified onshore export cable route to avoid consumption dykes and/or reinstate following cable installation.	Low	**Not significant**, adverse, short-term, reversible
Scrub hedgerows	Medium-low	High magnitude and potentially **significant** due to physical effect resulting from loss of characteristic scrub hedgerows.	Modified onshore export cable route to avoid scrub hedgerow and/or reinstate following cable installation.	Low	**Not significant**, adverse, short-term, reversible
Field boundary trees	Medium-high	High magnitude and potentially **significant** due to physical effect resulting from loss of characteristic field boundary trees.	Modified onshore export cable route to avoid field boundary trees and/or reinstate following cable installation.	Low	**Not significant**, adverse, short-term, reversible

Landscape Character:					
Deveron and Upper Ythan Valleys LCA	High	High magnitude and potentially **significant** due to effects resulting from loss of characteristic ancient woodlands, scrub hedgerows, field boundary trees, consumption dykes and arable land.	Modified onshore export cable route to avoid physical effects on characteristic woodlands, consumption dykes scrub hedgerows and field boundary trees and/or use directional drilling to bore export cable under woodland. Reinstate consumption dykes, scrub hedgerows, field boundary trees and arable land following cable installation.	Low	**Not significant**, adverse, short-term, reversible

Sections 3, 4 and 5: Agricultural Heartland (Agricultural Heartland LCA)

Table 5.3-11 Modified Onshore Export Cable Route Assessment: Landscape Character & Elements (Sections 3, 4 & 5)

Landscape Element	Sensitivity to change	Potential Effect	Mitigation Measures	Residual Magnitude of Change	Significance of Residual Effect
Sections 3, 4 & 5: Agricultural Heartland (Agricultural Heartland LCA)					
Ancient Woodland:					
AH1 - Wood of Balchers	Low[4]	Physical effect unlikely to be significant as Wood of Balchers is a plantation forest with commercial felling activities.	Not required	Low	**Not significant**, adverse, short-term, reversible.
Woodland:					
AH2 - Mill of Balmaud AH3 - Yonderton AH4 - Slackadale AH5 - Hill of Cotburn AH6 - Cairnhill AH7 - Waterside AH8 - Castlehill AH9 - Boghead AH10 - Howe of Teuchar AH11 - Bridge of Swanford	Medium - high	High magnitude and potentially **significant** due to physical effect resulting from loss of woodland.	Modified onshore export cable route to avoid physical effect on woodland or use directional drilling to bore export cable under woodland wherever possible.	Negligible	**Not significant**, adverse, short-term, reversible.
Farmland:					
Arable Farmland	Low	Medium-high magnitude and potentially **significant** due to physical effect resulting from loss of characteristic arable farmland.	Reinstate arable farmland following cable installation.	Medium	**Not significant**, adverse, short-term, reversible
Field boundaries:					
Consumption dykes	Medium-high	High magnitude and potentially **significant** due to physical effect resulting from loss of characteristic consumption dyke features.	Modified onshore export cable route to avoid consumption dykes and/or reinstate following cable installation.	Low	**Not significant**, adverse, short-term, reversible
Scrub hedgerows	Medium-low	High magnitude and potentially **significant** due to physical effect resulting from loss of characteristic scrub hedgerows.	Modified onshore export cable route to avoid scrub hedgerow and/or reinstate following cable installation.	Low	**Not significant**, adverse, short-term, reversible
Field boundary trees	Medium-high	High magnitude and potentially **significant** due to physical effect resulting from loss of characteristic field boundary trees.	Modified onshore export cable route to avoid field boundary trees and/or reinstate following cable installation.	Low	**Not significant**, adverse, short-term, reversible

[4] Wood of Balchers is a Forestry Commission commercial plantation

Landscape Character:					
Agricultural Heartlands LCA	Medium	High magnitude and potentially **significant** effect within cable route corridor.	Modified onshore export cable route to avoid physical effects on consumption dykes scrub hedgerows and field boundary trees. Reinstate consumption dykes, scrub hedgerows, field boundary trees and arable farmland following cable installation.	Low	**Not significant**, adverse, short-term, revsersible.

Summary of Cable Route Construction Effects on Landscape/Seascape Character

5.3.4.74 The Cliffs of the North and South-East Coast LCA and Boyndie Bay CCA in which the modified export cable landfall and Section 1 of the modified onshore export cable route corridor are located have a high sensitivity to change. This increased sensitivity is primarily due to distinctive and cohesive coastal landforms, which define its character, and the frequency of settlement and recreational use of these coastal landscapes. The sensitivity of the physical landscape of Inverboyndie Beach is assessed as medium to low as the beach is relatively easy to restore. The main effects of the modified export cable landfall will result from the disturbance to Inverboyndie Beach resulting from modified export cable landfall installation and the presence of machinery on and around the beach. The beach pit and any other excavations would be backfilled once the export cables are installed and tides will wash over the excavations to consolidate the backfill. The magnitude of change resulting from the modified export cable landfall is assessed as medium and the effect as **not significant**, adverse, short-term and reversible.

5.3.4.75 The modified onshore export cable route will result in the partial loss or alteration of the cliff face at the hinterland area of Inverboyndie Beach, during cable installation works, but loss would not be permanent and restoration would be anticipated to occur within the medium term. The magnitude of change on the immediate coastal character in this area is assessed as medium-high, within the immediate locale of the cliff face and cliff top and medium to low across the adjacent farmland. **Significant**, adverse, short-term, reversible effects will arise over a localised area lasting for the short-term duration of the construction works.

5.3.4.76 All other LCAs within the modified OnTI Study Area will not experience **significant** effects on landscape character, providing that suitable mitigation measures are employed to avoid physical effects on the principal landscape features within these LCAs. In particular, the modified onshore export cable route will be sited or installed to avoid physical effects on areas of woodland and ancient woodland. The modified onshore export cable route will also be sited or installed to avoid physical effects on consumption dykes, scrub hedgerows and hedgerow trees where possible, and/or these features will be reinstated following cable installation. Arable farmland will be reinstated following cable installation.

Operation

5.3.4.77 During the operational stage, there will be no further loss or alteration to the physical elements of the landscape as a result of the modified onshore export cable route. The onshore export cable will be buried up to 1.5 m deep on land therefore during operation there will be no physical effects as a result of the onshore export cable elements on any landscape elements.

5.3.4.78 In this context, the magnitude of change resulting from the operation of the modified onshore export cable will be negligible and the effect of the modified onshore export cable during operation will be not **significant**.

Decommissioning

5.3.4.79 During decommissioning, it is anticipated that the onshore export cable will be left in-situ and will result in no effect on physical landscape elements and landscape character. Where cables have been inserted into pre-installed ducts, it may prove possible to extract the cables relatively easily, if required, during the decommissioning phase with very limited effect on landscape receptors. The magnitude of change on landscape elements and LCAs will be negligible and the effect of the onshore export cable during decommissioning will be **not significant**.

Effects of Modified Onshore Export Cable Route (and Landfall) on Visual Amenity

Construction

5.3.4.80 The effect of the construction of the onshore export cable on visual amenity is assessed in Tables 5.3.12 – 5.3.14 relating to each section of the modified onshore export cable route corridor. Sections of the route are mapped in detail according to each LCA along the modified onshore export cable route corridor (Figures 5.3-18 to 5.3-22). The main visual effects within each LCA section are identified within a 1 km buffer of the modified onshore export cable route corridor and an assessment of their sensitivity and the potential effect of the onshore export cable construction, before mitigation. Appropriate mitigation measures are identified and the residual effect on each visual receptor is assessed assuming adoption of mitigation measures.

Section 1: The Coast (Cliffs of the North and South East Coast LCA)

Table 5.3-12 Modified Onshore Export Cable Route Assessment: Visual Receptors (Section 1)

Visual Receptor	Sensitivity to change	Potential Effect on Visual Amenity	Mitigation Measures	Residual Magnitude of Change	Significance of Residual Effect[5]
Section 1: The Coast (Cliffs of the North and South East Coast LCA and Boyndie Bay CCA)					
Residents of main settlements/villages:					
Banff	High	Low magnitude and **not significant** due to intervening distance (800 m minimum) and limited visibility of modified onshore export cable route from majority of Banff.	Not required	Low / negligible	**Not significant**, adverse, short-term, reversible
Inverboyndie	High	Potentially high magnitude and **significant** due to views of cable installation from residences in Inverboyndie at close proximity.	Onshore export cable route to be sited within part of modified onshore export cable route corridor to reduce/prevent visibility from Inverboyndie.	Low	**Not significant**, adverse, short-term, reversible
Whitehills	High	Low magnitude and **not significant** due to intervening distance (550 m minimum) and limited visibility of modified onshore export cable route from majority of Whitehills.	Not required	Low / negligible	**Not significant**, adverse, short-term, reversible
Motorists using A and B Roads:					
A98	Medium	Potentially high magnitude and **significant** due to views of cable installation from A98 from short section of road between Banff, Mill of Boyndie and Ladybrae Farm, and potential loss of deciduous woodland in views over Burn of Boyndie.	Modified onshore export cable route to avoid physical effect on woodland and/or use directional drilling to bore export cable under Burn of Boyndie.	Medium-high over 500 m section of the road passing Burn of Boyndie / Black Hillocks. Low-negligible from majority of the road.	**Significant**, adverse, short-term, reversible over 500 m section of the road. **Not significant** from majority of the road.
B9038	Medium	Potentially high magnitude and **significant** due to views of cable installation from 1 km section of B9038 between Kirkhill and Mill of Boyndie.	Reinstate consumption dykes and arable farmland following cable installation.	High over 1 km section of the road between Kirkhill and Mill of Boyndie. Low-negligible from majority of the road.	**Significant**, adverse, short-term, reversible over 1 km section. **Not significant** from majority of the road.

[5] In tables 5.3.12 – 5.3.15, residual magnitude of change and significance of effect assume mitigation measures have been adopted.

Visual Receptor	Sensitivity to change	Potential Effect on Visual Amenity	Mitigation Measures	Residual Magnitude of Change	Significance of Residual Effect[5]
B9139	Medium	Potentially high magnitude and **significant** due to views of cable installation from 500 m section of B9139 near B9038 junction.	Reinstate consumption dykes and arable farmland following cable installation.	High over 500 m section of the road between near B9038 junction. Low-negligible from majority of the road.	**Significant**, adverse, short-term, reversible over 500 m section. **Not significant** from majority of the road.
Cyclists/walkers using long distance routes and local paths:					
NCN 1 / Core Path - section on road between Kirkhill and Inverboyndie	High	Potentially high magnitude and **significant** due to views of cable installation from 1 km section of NCN 1 between Kirkhill and Inverboyndie.	Reinstate consumption dykes and arable farmland following cable installation.	High over 1 km section of the road between Kirkhill and Inverboyndie . Low-negligible from majority of the route.	**Significant**, adverse, short-term, reversible over 1 km section. **Not significant** from majority of the route.
NCN 1 / Core Path - section off road between Red Well and Banff Links Caravan Park	High	Potentially high magnitude and **significant** due to effect from 1 km section **of route along the coast with views of** modified export cable landfall installation on Inverboyndie Beach and alteration to the cliff edge resulting from excavation for modified onshore export cable route, from NCN 1 along the coast between Red Well and **Banff Links Caravan Park** at close proximity to the route.	Beach pit and any other excavations would be backfilled once the export cables are installed and allow tides to wash over the excavations to consolidate the backfill. Cable installation would result in the partial loss or alteration of the cliff face but loss would not be permanent and restoration would be anticipated to occur within the medium term.	High over 1 km section of the route along coast between Red Well and Banff Links. Low-negligible from majority of the route.	**Significant**, adverse, short-term, reversible over 1 km section. **Not significant** from majority of the route.
Core Path - Disused Railway	High	Potentially high magnitude and **significant** due to views of cable installation from 500 m section of core path near Mill of Boyndie.	Modified onshore export cable route to avoid physical effect on woodland and/or use directional drilling to bore export cable under Burn of Boyndie.	Medium	**Significant**, adverse, short-term, reversible over 500 m section. **Not significant** from majority of the route.

People taking part in other recreational activities:					
Inverboyndie Beach Users	High	Potentially high magnitude and **significant** due to views of modified export cable landfall installation on Inverboyndie Beach and alteration to the cliff edge resulting from excavation for modified onshore export cable route, at close proximity.	Beach pit and any other excavations would be backfilled once the export cables are installed and allow tides to wash over the excavations to consolidate the backfill. Cable installation would result in the partial loss or alteration of the cliff face but loss would not be permanent and restoration would be anticipated to occur within the medium term.	High	**Significant**, adverse, short-term, reversible
Banff Links Caravan Park Visitors	High	Potentially high magnitude and **significant** due to views of modified export cable landfall installation on Inverboyndie Beach and alteration to the cliff edge resulting from excavation for modified onshore export cable route, at close proximity.	Onshore export cable route to be sited within part of modified onshore export cable route corridor to reduce/prevent visibility from Caravan Park. Beach pit and any other excavations would be backfilled once the export cables are installed and allow tides to wash over the excavations to consolidate the backfill. Cable installation would result in the partial loss or alteration of the cliff face but loss would not be permanent and restoration would be anticipated to occur within the medium term.	High	**Significant**, adverse, short-term, reversible

Section 1 and 2: Coastal Farmland (Western Coastal Farmland LCA)

Table 5.3-13 Modified Onshore Export Cable Route Assessment: Visual Receptors (Section 1 & 2)

Visual Receptor	Sensitivity to change	Potential Effect on Visual Amenity	Mitigation Measures	Residual Magnitude of Change	Significance of Residual Effect
Section 1 and 2: Coastal Farmland (Western Coastal Farmland LCA)					
Motorists using A and B Roads:					
A97	Medium	Potentially high magnitude and **significant** due to views of cable installation from 1 km section of A97 between Hill of Tipperty and Crow Wood.	Reinstate consumption dykes and arable farmland following cable installation.	Medium-high over 1 km section of the road. Low-negligible from majority of the road.	**Significant**, adverse, short-term, reversible over 1 km section of the road. **Not significant** from majority of the road.
B9121	Medium	Potentially high magnitude and **significant** due to intermittent views of cable installation from 2km section of B9121 between Mid Culbeuchy and A97 junction at close proximity to the road.	Reinstate consumption dykes and arable farmland following cable installation.	Medium-high over 2 km section of the road. Low-negligible from majority of the road.	**Significant**, adverse, short-term, reversible over 2 km section of the road. **Not significant** from majority of the road.

Section 2: River Valley (Deveron and Upper Ythan Valleys LCA)

Table 5.3-14 Modified Onshore Export Cable Route Assessment: Visual Receptors (Section 2)

Visual Receptor	Sensitivity to change	Potential Effect on Visual Amenity	Mitigation Measures	Residual Magnitude of Change	Significance of Residual Effect
Section 2: River Valley (Deveron and Upper Ythan Valleys LCA)					
Residents of main settlements/villages:					
Kirktown of Alvah	High	Low/negligible due to intervening landform / woodland screening.	Not required	Low/ negligible	**Not significant**, neutral, short-term, reversible
Cyclists/walkers using long distance routes and local paths:					
NCN 1 / Core Path	High	Potentially high magnitude and **significant** due to views of cable installation from 2 km section of NCN 1 / Core Path between Lower Wanford and Keilhill.	Reinstate consumption dykes and arable farmland following cable installation.	High over 2 km section of the route between Lower Wanford and Keilhill. Low-negligible from majority of the route.	**Significant**, adverse, short-term, reversible over 2 km section. **Not significant** from majority of the route.

Sections 3, 4 and 5: Agricultural Heartland (Agricultural Heartland LCA)

Table 5.3-14 Modified Onshore Export Cable Route Assessment: Visual Receptors (Section 3, 4 & 5)

Visual Receptor	Sensitivity to change	Potential Effect on Visual Amenity	Mitigation Measures	Residual Magnitude of Change	Significance of Residual Effect
Section 3, 4 and 5: Agricultural Heartland (Agricultural Heartland LCA)					
Residents of main settlements/villages:					
Keilhill	High	Potentially high magnitude and **significant** due to views of cable installation from residences in Keilhill at close proximity.	Onshore export cable route to be sited within part of modified onshore export cable route corridor to reduce visibility from Keilhill.	Medium	**Significant**, adverse, short-term, reversible
Fintry	High	Potentially high magnitude and **significant** due to views of cable installation from residences in Fintry at close proximity.	Onshore export cable route to be sited within part of modified onshore export cable route corridor to reduce visibility from Fintry.	Medium	**Significant**, adverse, short-term, reversible
Cuminestown	High	Potentially medium magnitude and **significant** due to views of cable installation from residences in Cuminestown at distances over 300 m.	Onshore export cable route to be sited within part of modified onshore export cable route corridor to reduce visibility from Cuminestown.	Low	**Not significant**, adverse, short-term, reversible
Motorists using A and B Roads:					
A947	Medium	Potentially high magnitude and **significant** due to views of cable installation from 2 km section of A947 between Bogside and Montbletton	Reinstate consumption dykes and arable farmland following cable installation.	Medium-high over 2 km section of the road. Low-negligible from majority of the road.	**Significant**, adverse, short-term, reversible over 2 km section of the road. **Not significant** from majority of the road.
B9105	Medium	Potentially high magnitude and **significant** due to views of cable installation from 2 km section of B9105 near Craigston Castle and Fintry	Reinstate consumption dykes and arable farmland following cable installation.	Medium-high over 2 km section of the road. Low-negligible from majority of the road.	**Significant**, adverse, short-term, reversible over 2 km section of the road. **Not significant** from majority of the road.
B9170	Medium	Potentially high magnitude and **significant** due to views of cable installation from 1.5 km section of B9170 between Cuminestown and Castle of Auchry.	Reinstate consumption dykes and arable farmland following cable installation.	Medium-high over 1.5 km section of the road. Low-negligible from majority of the road.	**Significant**, adverse, short-term, reversible over 1.5 km section of the road. **Not significant** from majority of the road.
Cyclists/walkers using long distance routes and local paths:					
NCN 1 / Core Path – Idoch Water	High	Potentially high magnitude and **significant** due to views of cable installation from 1.5 km section of route between Cuminestown and Castle of Auchry.	Reinstate consumption dykes and arable farmland following cable installation.	Medium-high over 1.5 km section of the road. Low-negligible from majority of the road.	**Significant**, adverse, short-term, reversible over 1.5 km section of the route. **Not significant** from majority of the route.

Summary of Cable Route Construction Effects on Visual Amenity

5.3.4.81 The coastal areas of Boyndie Bay in which the modified export cable landfall and Section 1 of the modified onshore export cable route corridor are located, have a higher concentration of visual receptors than the remaining predominantly agricultural sections of the modified onshore export cable route corridor. In this coastal area, the main visual effects of the modified export cable landfall will result from views of modified export cable landfall installation on Inverboyndie Beach and alteration to the cliff edge resulting from excavation for modified onshore export cable route, and the presence of machinery on the beach, which will include drill rigs and cable barges and which will appear large in scale.

5.3.4.82 The magnitude of change to views resulting from the modified export cable landfall and modified onshore export cable route installation is assessed as high on cyclists/walkers using short sections of NCN 1 and the core path alongside Inverboyndie Beach and for recreational users of Inverboyndie Beach and Banff Links Caravan Park. The visual effect of the modified export cable landfall and modified onshore export cable route installation is assessed as **significant** and adverse on these receptors, but of short-term duration and reversible. The beach pit and any other excavations would be backfilled once the export cables are installed and tides will wash over the excavations to consolidate the backfill. The modified onshore export cable route will result in the partial loss or alteration of the cliff face at the hinterland area of Inverboyndie Beach, during cable installation, but loss would not be permanent and restoration would be anticipated to occur within the medium term.

5.3.4.83 The visual effect of the modified export cable landfall and modified onshore export cable route installation is assessed as **not significant** on residents of Banff, Inverboyndie and Whitehills. **Significant** adverse but short-term and reversible visual effects will be experienced by residents of Keilhill and Fintry, due to the proximity of the modified onshore export cable route in views from these small villages in the agricultural heartlands.

5.3.4.84 **Significant** adverse but short-term and reversible visual effects will be experienced by motorists on short sections of several roads that pass through the modified onshore export cable route corridor, including the A97, A98, A947, B9038, B9105, B9121, B9139 and B9170. In all cases, the **significant** effects on views arising from the modified onshore export cable route installation will occur over short sections of these routes, typically from short localised sections of the roads which approach and pass through the 500 m modified onshore export cable route corridor, where there may be fleeting views of the cable installation at close range, and often on either side of the public road. The effect of the onshore export cable installation will be **not significant** from extensive sections of these A and B roads within the OnTI Study Area which generally will not allow motorists visibility of the modified onshore export cable route due to intervening landform and woodland screening in the landscape.

Operation

5.3.4.85 During the operational stage, the onshore export cable will be buried up to 1 m deep therefore during operation therefore there will be no further alteration to views as a result of the modified onshore export cable. In this context, the magnitude of change on views experienced from all visual receptors resulting from the operation of the modified onshore export cable will be negligible and the effect of the modified onshore export cable during operation will be not significant, **neutral, long term and reversible**.

Decommissioning

5.3.4.86 During decommissioning, it is anticipated that the onshore export cable will be left in-situ and will result in no effect on views and visual amenity. Where cables have been inserted into pre-installed ducts, it may prove possible to extract the cables relatively easily, if required, during the decommissioning phase with very limited effect on visual amenity. The magnitude of change on views and visual receptors will be negligible and the effect of the onshore export cable during decommissioning will be **not significant**, neutral, short-term and reversible.

Effect of Onshore Substations on Landscape Character and Elements

Agricultural Heartlands LCA

5.3.4.87 The onshore substation area is located in the Agricultural Heartlands LCA. The baseline conditions for this LCA are described in the landscape baseline in Section 5.3.3. The Agricultural Heartland unit typifies the characteristic agricultural heartland of Banff & Buchan, in which the land use is predominantly large scale, agricultural land of arable and pasture. The rolling landform allows some open views of the surrounding landscape, but also provides enclosure. There are occasionally longer distance views to the upland skyline of Bennachie to the south. There is a frequent scattering of broad-leaved trees in shelterbelts along hill-ridges, around farms and, occasionally in small coniferous blocks, in this large scale agricultural plain. Field boundaries vary, including fence-lines, hedges and the occasional stone dyke. Farmsteads are frequent in this relatively well-settled landscape, as are small hamlets and larger villages such as New Deer and Cuminestown. Wind turbines associated with large scale farmsteads are only occasionally evident in the part of the LCA in the onshore substation Study Area, consisting of a single wind turbine at Cairnhill and a three turbine cluster at Hill of Balquhindachy, together with several small scale farm turbines (>30m). Further wind turbines are visible and characteristic in the wider Agricultural Heartlands landscape, generally consisting of between 1 – 3 turbines of 75-80m in height. Viewpoints 1 – 8 are all located within the Agricultural Heartlands and the existing views shown from them, in Figures 5.3-30 to 5.3-37 are indicative of the character of this LCA within the onshore substation Study Area.

Sensitivity to Change

5.3.4.88 The sensitivity of the Agricultural Heartland LCA to change resulting from the onshore substations is assessed in Table 5.3-15.

Table 5.3-15 Agricultural Heartlands LCA – Sensitivity to Change (Onshore Substations)

Agricultural Heartland LCA – Sensitivity to Change	
Value:	Medium
• Agricultural Heartlands LCA is not subject to any scenic landscape designation. • The innate character of the landscape has been subject to modification mainly through intensive farming, which influences the scenic and perceptual quality. • The Agricultural Heartlands cover an extensive area within Aberdeenshire and are not rare in the region, being representative of a wide area of intensive farmland. • The LCA is well settled with frequent farmsteads, but is not notably valued for recreation, although there is some local recreational use. • There are valued views of the upland skyline formed by Bennachie and its adjacent uplands to the south.	
Susceptibility to change:	Medium
Factors which increase susceptibility to change	
• Landscape change on rolling landform could be visually prominent, where there are open views of the landscape, and influence the character of the LCA. • The LCA is well settled, with frequent farmsteads and small hamlets, but few larger village and settlements. • Electrical infrastructure and buildings within the onshore substations are likely to appear largely in conjunction with agricultural landscape patterns and features, in a rural landscape context. • The scale of the potential substations is large compared to existing development influences within this rural area.	
Factors which decrease susceptibility to change	
• Appropriately sited and designed development may appear to be accommodated within the broad, large scale rolling landform and may be contained by subtle undulations in landform. • Woodland shelterbelts increase enclosure in the landscape and reduce the likelihood to experience change as a result of the onshore substations. • Additional screening of the onshore substations through woodland planting would enhance key characteristic of the LCA. • Onshore substations are likely to appear in conjunction with large scale farm buildings, linear elements such as field boundaries and tracks, and existing electrical infrastructure such as the main 275kV electrical line/pylons. • The LCA has relatively few visual receptors that experience the landscape character, with very limited recreational activity and few main road routes. • Landscape change caused by onshore substations may have some associations with the existing wind energy generation characteristics of this landscape unit.	
Sensitivity to change:	Medium

Magnitude of Change

5.3.4.89 The magnitude of change resulting from the onshore substations on the Agricultural Heartland LCA is assessed in Table 5.3-16.

Table 5.3-16 Agricultural Heartlands LCA – Magnitude of Change (Onshore Substations)

Agricultural Heartland LCA – Magnitude of Change	
Geographic Extent:	Local
The visibility of the Development from the Agricultural Heartlands LCA is illustrated in the ZTV in Figure 5.3-15. Geographically, the area of the LCT that may experience change as a result of visibility of the onshore substations is contained to the agricultural land immediately around the onshore substations between Burnside, Asleid, Millbrex and Swanford; extending to elevated ground around Auchmaliddie in the east (south of New Deer) to Muirtack/Upperton in the west; and between Cuminestown in the north and the Braes of Gight to the south, generally within 6km. Broadly, the western parts of the LCT within the Study Area, to the west of Deer Hill, will experience limited or no change. The scale or size of the change on the character of this LCA varies and is assessed within the following areas of the LCA: Area 1 – Substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford Area 2 – Little Water, low-lying area to the east Area 3 – Cairnbanno to New Deer to the north-east Area 4 – Allathan to Balthangie to the north Area 5 – Cuminestown, Howe of Teuchar to Fyvie to the west Area 6 – Northern Rolling Lowlands (Balquhindachy to Braes of Gight) Area 7 – Ythan Strath Farmland	
Magnitude of change (construction/decommissioning)	
Area 1 - Substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford	Medium to high
• The construction of the onshore substations results in a moderate to large scale change to the local character due to the construction compound and reversible buildings, vehicles, machinery, cranes and the stockpiling of materials that will be needed during construction. • The construction processes will result in changes in ground conditions/profiles and the addition of the fenced buildings and electrical infrastructure. • As they are constructed the built form and electrical infrastructure will appear on the open skyline. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area. • The physical effect on the arable farmland within the substations area is contained to a limited footprint occupied by the substations, access tracks and site infrastructure. • The indicative substations location avoids the higher ground (110m) to the east of the substations area, which forms a more identifiable part of the skyline, instead being sited on the slightly lying western part of the landform around the 105m contour. • The undulating agricultural land and woodland blocks, particularly within the Burn of Asleid, provide some containment of the substations in the landscape.	
Area 2 - Cairnbanno to Auchmaliddie to the north-east	**Medium to low**
• The construction of the onshore substations results in a small to moderate scale change on this area due to construction of onshore substations appearing on the open skyline to the west, but at distance and with a reduced influence on the character of this area.	
Area 3 - Allathan to Balthangie to the north	**Low**
• The construction of the onshore substations results in a small scale change on this area due to the lower visibility of the construction of the onshore substations, due to intervening landform screening and increased distance resulting in a reduced influence on the character of this area.	

Agricultural Heartland LCA – Magnitude of Change	
Area 4 - Northern Rolling Lowlands (Balquhindachy to Braes of Gight)	**Low**
• The construction of the onshore substations results in a small scale change on this area due to the lower visibility of the construction of the onshore substations, due to intervening landform screening, the position of the substations below the skyline and increased distance resulting in a reduced influence on the character of this area.	
Area 5 - Ythan Strath Farmland	**Low**
• The construction of the onshore substations results in a small scale change on this area due to the lower visibility of the construction of the onshore substations, due to intervening landform screening, the position of the substations below the skyline and increased distance resulting in a reduced influence on the character of this area.	
Area 6 - Little Water, low-lying area to the east	**Negligible (no visibility)**
Area 7 - Cuminestown, Howe of Teuchar to Fyvie to the west	**Negligible (no visibility)**
Area 8 - New Deer, Clush to Knaven	**Negligible (no visibility)**
Magnitude of change (operation):	
Area 1 - Substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford	Medium to high
• The operation of the onshore substations results in a moderate to large scale change to the local character due to the presence of large scale electrical buildings and infrastructure, which will increase the developed character of the local landscape through the introduction of large buildings and electrical infrastructure. • The principal change to the local character will result from the contrast of the electrical infrastructure and buildings within the onshore substations within the predominantly agricultural setting and the scale/complexity of built forms compared to existing development influences within the area. • The operation of the onshore substations will result in further changes to ground conditions/profiles, the addition of fences, access roads and a very slight increase in vehicular movement in the local area. • Woodland and hedgerows will have been planted as part of the landscape mitigation scheme, but will have limited effect as components of the landscape until they are at least 5 years old.	
Area 2 - Cairnbanno to Auchmaliddie to the north-east	**Medium to low**
• The operation of the onshore substations results in a small to moderate scale change on this area due to the onshore substation buildings and electrical infrastructure appearing on the open skyline to the west, but at distance and with a reduced influence on the character of this area.	
Area 3 - Allathan to Balthangie to the north	**Low**
• The operation of the onshore substations results in a small scale change on this area due to the lower visibility of the onshore substation buildings and electrical infrastructure, due to intervening landform screening and increased distance resulting in a reduced influence on the character of this area.	
Area 4 - Northern Rolling Lowlands (Balquhindachy to Braes of Gight)	**Low**
• The operation of the onshore substations results in a small scale change on this area due to the lower visibility of the onshore substation buildings and electrical infrastructure, due to intervening landform screening, the position of the substations below the skyline and increased distance resulting in a reduced influence on the character of this area.	
Area 5 - Ythan Strath Farmland	**Low**
• The operation of the onshore substations results in a small scale change on this area due to the lower visibility of the onshore substation buildings and electrical infrastructure, due to intervening landform screening, the position of the substations below the skyline and increased distance resulting in a reduced influence on the character of this area.	
Area 6 - Little Water, low-lying area to the east	**Negligible (no visibility)**
Area 7 - Cuminestown, Howe of Teuchar to Fyvie to the west	**Negligible (no visibility)**
Area 8 - New Deer, Clush to Knaven	**Negligible (no visibility)**

Agricultural Heartland LCA – Magnitude of Change	
Magnitude of change (operation – 15 years post construction):	
Area 1 - Substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford	Medium (high within the site only)
• The operation of the onshore substations results in a moderate to large scale change to the local character due to the presence of large scale electrical buildings and infrastructure, which will increase the developed character of the local landscape through the introduction of large buildings and electrical infrastructure. • The principal change to the local character will results from the contrast of the electrical infrastructure and buildings within the onshore substations within the predominantly agricultural setting and the scale/complexity of built forms compared to existing development influences within the area. • The operation of the onshore substations, post a 15 year planting establishment period, will include maturing native woodland shelterbelts around the onshore substations, which will visually contain and screen much of the onshore substation buildings and electrical infrastructure. • Native woodland and hedgerows around the onshore substations would enhance these key characteristics of the LCA, increasing deciduous woodland cover and connecting areas of existing shelterbelt woodland.	
Area 2 - Cairnbanno to Auchmaliddie to the north-east	Low
• The operation of the onshore substations results in a small scale change on this area due to the onshore substation buildings and electrical infrastructure appearing on the open skyline to the west, but at distance and with a reduced influence on the character of this area.	
Area 3 - Allathan to Balthangie to the north	**Low**
• The operation of the onshore substations results in a small scale change on this area due to the lower visibility of the onshore substation buildings and electrical infrastructure, due to intervening landform screening and increased distance resulting in a reduced influence on the character of this area.	
Area 4 - Northern Rolling Lowlands (Balquhindachy to Braes of Gight)	**Low**
• The operation of the onshore substations results in a small scale change on this area due to the lower visibility of the onshore substation buildings and electrical infrastructure, due to intervening landform screening, the position of the substations below the skyline and increased distance resulting in a reduced influence on the character of this area.	
Area 5 - Ythan Strath Farmland	**Low**
• The operation of the onshore substations results in a small scale change on this area due to the lower visibility of the onshore substation buildings and electrical infrastructure, due to intervening landform screening, the position of the substations below the skyline and increased distance resulting in a reduced influence on the character of this area.	
Area 6 - Little Water, low-lying area to the east	**Negligible (no visibility)**
Area 7 - Cuminestown, Howe of Teuchar to Fyvie to the west	**Negligible (no visibility)**
Area 8 - New Deer, Clush to Knaven	**Negligible (no visibility)**

Significance of Effect

5.3.4.90 The significance of effect on the Agricultural Heartlands LCA is summarised in Table 5.3-17.

Table 5.3-17 Agricultural Heartlands LCA – Significance of Effect (Onshore Substations)

Agricultural Heartland LCA – Significance of Effect	
Significance of Effect (construction/decommissioning):	
Area 1 - Substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford	**Significant**, adverse, short-term, reversible
Area 2 - Cairnbanno to Auchmaliddie to the north-east Area 3 - Allathan to Balthangie to the north Area 4 - Northern Rolling Lowlands (Balquhindachy to Braes of Gight) Area 5 - Ythan Strath Farmland	**Not significant,** adverse, short-term, reversible
Area 6 - Little Water, low-lying area to the east Area 7 - Cuminestown, Howe of Teuchar to Fyvie to the west Area 8 - New Deer, Clush to Knaven	**Not significant**, neutral, short-term, reversible
Significance of Effect (operation):	
Area 1 - Substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford	**Significant**, adverse, long-term, reversible
Area 2 - Cairnbanno to Auchmaliddie to the north-east Area 3 - Allathan to Balthangie to the north Area 4 - Northern Rolling Lowlands (Balquhindachy to Braes of Gight) Area 5 - Ythan Strath Farmland	**Not significant,** adverse, long-term, reversible
Area 6 - Little Water, low-lying area to the east Area 7 - Cuminestown, Howe of Teuchar to Fyvie to the west Area 8 - New Deer, Clush to Knaven	**Not significant**, neutral, long-term, reversible
Significance of Effect (operation – 15 years post construction):	
Area 1 - Substations area and surrounds between Burnside, Asleid, Boghead, Millbrex and Swanford	**Significant**, adverse, long-term, reversible within the site. Not significant, adverse, long-term, reversible.
Area 2 - Cairnbanno to Auchmaliddie to the north-east Area 3 - Allathan to Balthangie to the north Area 4 - Northern Rolling Lowlands (Balquhindachy to Braes of Gight) Area 5 - Ythan Strath Farmland Area 6 - Little Water, low-lying area to the east Area 7 - Cuminestown, Howe of Teuchar to Fyvie to the west Area 8 - New Deer, Clush to Knaven	**Not significant,** neutral, long-term, reversible

Effects of Onshore Substations on Visual Amenity

5.3.4.91 The effects of the onshore substations on visual amenity are assessed through a viewpoint assessment from eight representative viewpoints in the onshore substations Study Area. These viewpoints are primarily representative of the residential receptors and minor road network in the locality, with few other receptors in the local area. The sensitivity of each viewpoint is assessed based on the value of the view and the

susceptibility to change of people experiencing the view. The magnitude of change is assessed based on the geographic extent and scale or size of the change resulting from the onshore substations. The magnitude and significance of effect for each viewpoint is assessed during construction/decommissioning, during operation and during operation 15 years post construction when the woodland planting proposals will be approaching maturity. The effects of the onshore substations on viewpoints are assessed in Tables 5.3.18 – 5.3.25.

Viewpoint 1 Upper Mains of Asleid - Figure 5.3-30

Table 5.3-18 Viewpoint 1: Upper Mains of Asleid

Viewpoint 1: Upper Mains of Asleid	
Baseline conditions	
Grid reference: 383600 844428	Elevation: 103 m
View direction: 282	Distance: 282m
Viewpoint location: The viewpoint is located on the minor road which lies to the east of the site, between the settlements of Burnside and Burnend. It is representative of the view experienced by residents of the properties in the vicinity of Upper Mains of Asleid and by motorists travelling north towards Burnside along the minor road.	
Existing view: • Rural landscape. • Land use primarily arable farmland. • Field boundaries generally determined by post and wire fences, as well as some consumption dykes. • Range of vegetation, including woodland shelterbelts and blocks of coniferous woodland, particularly adjacent to the Burn of Alseid and along the skyline. • Gently rolling landform of subtle undulations, with elevations generally between 100-110m AOD, although dropping more steeply into the Burn of Asleid to approximately 95m AOD. • Areas of higher ground in the wider landscape visible in the distance, particularly to the west of the site, containing views. • Scattered detached houses and farmsteads (including large agricultural buildings at North Milbrex and East Swanford). • Large scale electrical pylons and overhead lines traverse the substation area between Mains of Asleid and East Swanford. • Network of minor roads and single track farm access lanes.	
Sensitivity to change	
Value:	Medium to low
• The view is not a formally recognised viewpoint, nor does it overlook a designated landscape, so is not afforded particular protection through planning policy. • The view has some local interest due to the panoramic vista over the wide landscape. • The viewpoint is located on a minor road adjacent to the properties at Upper Mains of Asleid so is easily accessible, although will not be experienced by large numbers of people. • The view has some scenic qualities and interest relating to the patterns and features visible in the landscape, such as shelterbelts, woodland blocks and post and wire field boundaries, as well as the rural/agricultural character that is indicative of the Agricultural Heartlands. • The character of the landscape visible is not rare and such views are available across large parts of rural Aberdeenshire. • The large scale electrical pylons and overhead lines which traverse the view influence its scenic qualities.	
Susceptibility to change:	Residents – High, Road users – medium
Factors which increase susceptibility:	

Viewpoint 1: Upper Mains of Asleid	
• The view will be experienced by residents in the vicinity of Upper Mains, although none of these properties have their main aspects towards the onshore substations they would have visibility from parts of the properties and external areas. • Views to the east are confined by a belt of woodland so that the only open views from this part of the minor route are towards the west. • The view is generally rural in character with some development characteristics.	
Factors which decrease susceptibility:	
• The view will be experienced for a short duration by road users, whose main attention may not be focused on their wider surroundings and will experience the site transiently at moderate speeds. • Upper Mains of Asleid is afforded screening to the west and north by existing shelterbelt woodland. • The view has some existing development characteristics and displays characteristics of a human influenced landscape.	
Sensitivity to change:	Residents – High to medium, Road users- medium-low
Magnitude of change (construction/decommissioning)	
Duration:	Short
Geographic extent:	Short distance
• Onshore substations are visible at close range - approx. 200m-500m for approximately 1km of the minor road. • Range, direction and extent of visibility akin to residential properties as above.	
Size or scale of change:	Large
• The construction of the onshore substations results in a large scale change in the view due to the construction compound and temporary buildings, vehicles, machinery, cranes and the stockpiling of materials that will be needed during construction. • The access to the site and its use will extend the notable construction area to the east of the Onshore Substation Area to where it connects with the minor road. • The construction processes will result in changes in ground conditions/profiles and the addition of the fenced buildings and electrical infrastructure. • Task and vehicle lighting may be used in the hours of darkness – but only during approved working hours. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • As they are constructed the built form and electrical infrastructure will obscure visibility of the rolling landscape beyond. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area. • Some separation of substations from minor road by open fields, maintaining the agricultural foreground.	
Magnitude of change:	High over short duration
Magnitude of change (operation)	
Duration:	Long term
Geographic extent:	Short distance
• Onshore substations are visible at close range – approx. 200m-500m for approximately 1km of the minor road. • Range, direction and extent of visibility akin to residential properties as above.	
Size or scale of change:	Large

Viewpoint 1: Upper Mains of Asleid	
• The operation of the onshore substations will result in changes in ground conditions/profiles and the addition of the fenced buildings and electrical infrastructure across approximately 34 degrees of the field of view from this location. • Woodland and hedgerows will have been planted but will have little effect as components of the landscape until they are at least 5 years old. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • The buildings and electrical infrastructure will obscure visibility of the rolling landscape beyond. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area. • Some separation of substations from minor road by open fields, maintaining the agricultural foreground.	
Magnitude of change:	High over long duration
Magnitude of change (operation - 15 years post construction)	
Geographic extent:	Short distance
• Onshore substations are visible at close range – approx. 200m-500m for approximately 1km of the minor road. • Range, direction and extent of visibility akin to residential properties as above.	
Size or scale of change:	Large
• The operation of the onshore substations, post a 15 year planting establishment period, will result in views of only the upper parts of buildings and electrical infrastructure being visible above close range hedgerows and the native woodland that is to be planted around the substation site, • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • The buildings and electrical infrastructure and planting will obscure visibility of the rolling landscape beyond. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area – however, these will be much less noticeable, particularly when the trees/hedges are in leaf. • The native woodland is characteristic of this landscape within the wider area and so will not contrast with the general landscape character.	
Magnitude of change:	Medium
Significance of effect	
Construction/decommissioning:	**Significant,** adverse, short-term, reversible
Operation:	**Significant,** adverse, long-term, reversible
15 years post construction:	Residents – **Significant,** adverse, long term, reversible, Road users – **not significant,** adverse, long term, reversible

Viewpoint 2 Burnside of Milbrex - Figure 5.3-31

Table 5.3-19 Viewpoint 2: Burnside of Milbrex

Viewpoint 2: Burnside of Milbrex	
Baseline conditions	
Grid reference: 383071 843952	Elevation: 102 m
View direction: 0 degrees	Distance: 337 m
Viewpoint location: This viewpoint is located at the junction between Burnside of Milbrex access and the minor road running along the onshore substation areas southern boundary. It is representative of the view experienced by motorists travelling east along the minor road, residents coming and going from Burnside of Millbrex and also shows how the property at Burnside of Milbrex relates to the area.	
• Existing view: • Rural landscape. • Land use primarily arable farmland and grazing land. • Field boundaries generally determined by post and wire fences. • Range of vegetation, including woodland shelterbelts and blocks of coniferous woodland, particularly adjacent to the Burn of Alseid, which lies just out of view in the middle ground valley. • Occasional scrubby/riparian trees along Burn of Asleid. • Gently rolling landform of subtle undulations contains views, with elevations generally between 100-110m AOD. View overlooks the Burn of Asleid's valley, where the elevation drops to approximately 95m AOD. • Access route to Burnside of Millbrex with farmhouse and steading beyond. • Swanford visible on the distant skyline. • Large scale electrical pylons and overhead lines traverse the substation area and are visible across the skyline in much of the view.	
Sensitivity to change	
Value:	Medium-low
• The view is not a formally recognised viewpoint, nor does it overlook a designated landscape, so is not afforded particular protection through planning policy. • Some local interest in the view for its open outlook towards Slacks of Cairnbanno and views of the Burn of Asleid when driving eastwards along the minor road. • The viewpoint is located on a minor road adjacent to the property at Burnside of Milbrex so is easily accessible, although will not be experienced by large numbers of people. • The fields are large and hedgerows have been removed so that the landscape has lost some of its defined pattern. • The constrained extent of the view and lack of hedgerows limits its scenic qualities. • The landscape of the view is not rare or remarkable in any way and it is representative of the rural/agricultural character that is indicative of the wide-spread Agricultural Heartlands. • The large scale electrical pylons and overhead lines which traverse the view influence its scenic qualities.	
Susceptibility to change:	Residents of farm – medium, Road users- medium-low
Factors which increase susceptibility:	
• The view will be experienced by residents of Burnside of Millbrex as they approach and move around outside their property. Views from the farmhouse are obscured by intervening trees and buildings. • The view is generally rural in character with some development characteristics.	
Factors which decrease susceptibility:	

Viewpoint 2: Burnside of Milbrex	
• The view will be experienced for a short duration by road users, whose main attention may not be focused on their wider surroundings and will experience the site transiently at moderate speeds. • Burnside of Milbrex is afforded screening to the north and east by existing shelterbelt woodland around the farm buildings along the Burn of Asleid. • The view has some existing development characteristics and displays characteristics of a human influenced landscape.	
Sensitivity to change:	Residents – medium, Road users - medium-low
Magnitude of change (construction/decommissioning)	
Duration:	Short term
Geographic extent:	Short distance
• Onshore substations are visible at close range - approx. 300m-500m intermittently for approximately 1km of the minor road. • Closer range views available from access track to Burnside of Millbrex.	
Size or scale of change:	Large
• The construction of the onshore substations results in a large scale change in the view due to the construction compound and temporary buildings, vehicles, machinery, cranes and the stockpiling of materials that will be needed during construction. • The construction processes will result in changes in ground conditions/profiles and the addition of the fenced buildings and electrical infrastructure. • Task and vehicle lighting may be used in the hours of darkness – but only during approved working hours. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • As they are constructed the built form and electrical infrastructure will appear on the open skyline. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area. • The open agricultural foreground and burn corridor provide a separation between the substations and the minor road and farm access.	
Magnitude of change:	High
Magnitude of change (operation)	
Duration:	Long term
Geographic extent:	Short distance
• Onshore substations are visible at close range - approx. 300m-500m intermittently for approximately 1km of the minor road. • Closer range views available from access track to Burnside of Millbrex.	
Size or scale of change:	Large

Viewpoint 2: Burnside of Milbrex	
• The operation of the onshore substations will result in changes in ground conditions/profiles and the addition of the fenced buildings and electrical infrastructure across approximately 34 degrees of the field of view from this location. • Woodland and hedgerows will have been planted but will have little effect as components of the landscape until they are at least 5 years old. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • The buildings and electrical infrastructure will be seen on the skyline. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area. • The open agricultural foreground and burn corridor provide a separation between the substations and the minor road and farm access.	
Magnitude of change:	High
Magnitude of change (operation – 15 years post construction)	
Duration:	Long term
Geographic extent:	Short distance
• Onshore substations are visible at close range - approx. 300m-500m intermittently for approximately 1km of the minor road. • Closer range views available from access track to Burnside of Millbrex.	
Size or scale of change:	Large
• The operation of the onshore substations, post a 15 year planting establishment period, will result in views of only the upper parts of buildings and electrical infrastructure being visible on the skyline above the native woodland that is to be planted around the substation site, • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area – however, these will be much less noticeable, particularly when the trees/hedges are in leaf. • The native woodland is characteristic of this landscape within the wider area and so will not contrast with the general landscape character.	
Magnitude of change:	Medium
Significance of effect	
Construction/decommissioning:	**Significant,** adverse, short-term, reversible
Operation:	**Significant,** adverse, long-term, reversible
Operation 15 years post construction	**Not significant,** adverse, long-term, reversible

Viewpoint 3 The Neuk Figure 5.3-32

Table 5.3-20 Viewpoint 3: The Neuk

Viewpoint 3: The Neuk	
Baseline conditions	
Grid reference: 383121 845364	Elevation: 107 m
View direction: 180 degrees	Distance: 644 m
Viewpoint location: This viewpoint is located on the minor road which runs to the east of the site, between Burnside and Burnend. It is representative of the view that may be experienced by residents of The Neuk and by motorists travelling south towards Burnend along the minor road. Boundary planting around the western and southern sides of The Neuk property is likely to obscure visibility in this direction following construction.	
Existing view: • Rural landscape. • Land use primarily arable farmland. • Field boundaries generally determined by post and wire fences. • Woodland shelterbelts characteristic along field boundaries adjacent to the minor road and alongside the Burn of Alseid. • Gently rolling landform of subtle undulations contains views, with elevations generally between 105-110m AOD, although dropping more steeply into the Burn of Asleid to approximately 100m AOD. • Scattered detached houses and farmsteads in the wider view. • Large scale electrical pylons and overhead lines traverse the view on the skyline. • Turbines at Haddo and Gordonstown Hill visible to the west of the site. • Large scale open fields.	
Sensitivity to change	
Value:	Low
• The view is not a formally recognised viewpoint, nor does it overlook a designated landscape, so is not afforded particular protection through planning policy. • Some local informal recognition is given to the view for its open outlook towards the south. • The viewpoint is located on a minor road so is easily accessible, although will not be experienced by large numbers of people and there are no available stopping points. • The view represents some of the patterns and features which are characteristic of the landscape, such as woodland blocks and post and wire field boundaries, as well as the rural/agricultural character that is indicative of the Agricultural Heartlands. Long-distance views over the rolling farmland are visible to the south-west. • The large scale electrical pylons, overhead lines and numerous wind turbines which interrupt the skyline further influence its scenic qualities. • The pattern of the landscape and its scenic quality have been reduced through the removal of hedgerows and the planting of non-native shelterbelts alongside the road. • High ground location affords panoramic views over the landscape.	
Susceptibility to change:	Residents of houses – medium, Road users- medium-low
Factors which increase susceptibility:	
• Views from The Neuk likely to be obscured by garden boundary planting. • The view is generally rural in character with some development characteristics.	
Factors which decrease susceptibility:	

Viewpoint 3: The Neuk	
• The view will be experienced for a short duration by road users, whose main attention may not be focused on their wider surroundings and will experience the site transiently at moderate speeds. • The view has some existing development characteristics and displays characteristics of a human influenced landscape. • The Neuk is afforded screening to the south by existing shelterbelt woodland. • The development will be part of wide panoramic views available from this location.	
Sensitivity to change:	Medium to low
Magnitude of change (construction/decommissioning)	
Duration:	Short term
Geographic extent:	Short distance
• Views of the onshore substations intermittently from approx. 300m of minor road and potentially the residential property of The Neuk at a range of greater than 600m.	
Size or scale of change:	Moderate
• The construction of the onshore substations results in a moderate scale change in the view due to the construction compound and temporary buildings, vehicles, machinery, cranes and the stockpiling of materials that will be needed during construction. • The access to the site and its use will extend the construction area to the east of the Onshore Substation Area to where it connects with the minor road, although this will be partially obscured due to intervening vegetation. • The construction processes will result in the addition of the fenced buildings and electrical infrastructure. • Task and vehicle lighting may be used in the hours of darkness – but only during approved working hours. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • As they are constructed the built form and electrical infrastructure will be apparent on the skyline. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area. • Some separation of substations from minor road by open fields, maintaining the agricultural foreground.	
Magnitude of change:	High
Magnitude of change (operation)	
Duration:	Long term
Geographic extent:	Short distance
• Views of the onshore substations intermittently from approx. 300m of minor road and potentially the residential property of The Neuk at a range of greater than 600m.	
Size or scale of change:	Moderate

Viewpoint 3: The Neuk	
• The operation of the onshore substations will result in the addition of the fenced buildings and electrical infrastructure across approximately 19 degrees of the field of view from this location. • Woodland and hedgerows will have been planted but will have little effect as components of the landscape until they are at least 5 years old. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • The buildings and electrical infrastructure will be seen on the skyline but some lower parts are obscured by intervening landform. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area. • The open agricultural foreground and burn corridor provide a separation between the substations and the minor road and property.	
Magnitude of change:	Medium
Magnitude of change (operation – 15 years post construction)	
Duration:	Long term
Geographic extent:	Short distance
• Views of the onshore substations intermittently from approx. 300m of minor road and potentially the residential property of The Neuk at a range of greater than 600m.	
Size or scale of change:	Small
• The operation of the onshore substations, post a 15 year planting establishment period, will result in views of only the upper parts of buildings and electrical infrastructure being visible on the skyline above the native woodland that is to be planted around the substation site. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area – however, these will be much less noticeable, particularly when the trees/hedges are in leaf. • The native woodland is characteristic of this landscape within the wider area and so will not contrast with the general landscape character.	
Magnitude of change:	Low
Significance of effect	
Construction/decommissioning:	**Significant,** adverse, short-term, reversible
Operation:	**Not significant,** adverse, long-term, reversible
Operation 15 years post construction	**Not significant,** adverse, long-term, reversible

Viewpoint 4 Upper Burnside - Figure 5.3-33

Table 5.3-21 Viewpoint 4: Upper Burnside

Viewpoint 4: Upper Burnside	
Baseline conditions	
Grid reference: 382729 845614	Elevation: 112 m
View direction: 162	Distance: 957 m
Viewpoint location: This viewpoint is located on the minor road which runs to the north of the site and is representative of the views experienced by residents living at Upper Burnside, Burnside, Rosebank Cottage, Maryhill House, Cragganmore and Maryhill, although some of the views are obscured by intervening vegetation. Broomfield Cottage and Little Swanford would gain slightly more distant but elevated views.	
Existing view: • Rural character. • Land use primarily arable farmland. • Strong pattern of post and wire fence field boundaries with some limited remnant hedgerows. • Range of vegetation, including woodland shelterbelts and blocks of coniferous woodland, particularly adjacent to the Burn of Alseid and along the skyline and associated with properties. • Gently rolling landform of subtle undulations contains views, with elevations generally between 100-110m AOD, although dropping more steeply into the Burn of Asleid to approximately 95m AOD. • Areas of higher ground in the wider landscape visible to the south-east of the site and form distant skyline. • Scattered detached houses and farmsteads (East Swanford and Burnside). • Large and small scale electrical pylons and overhead lines traverse the substation area between Mains of Asleid and East Swanford, dominating the skyline. • Three turbine wind turbine cluster on the Hill of Balquhindachy to the south-east of the site is notable on the skyline.	
Sensitivity to change	
Value:	Medium-low
• The view is not a formally recognised viewpoint, nor does it overlook a designated landscape, so is not afforded particular protection through planning policy. • Local interest in view due to its open outlook towards the south. • The viewpoint is located on a minor road adjacent to numerous properties around Burnside, therefore, easily accessible and will be experienced by limited numbers of people within the local area. • The view has some scenic qualities and interest relating to the patterns and features visible in the landscape, such as shelterbelts, woodland blocks and open patchwork of field; with the elevated landform of Balquhindachy Hill framing views to the south-east. • The removal of hedgerow boundaries has reduced the defined pattern of fields and scenic quality of the agricultural landscape. • The large and small scale electrical pylons, overhead lines and wind turbines which interrupt the skyline and influence its scenic qualities.	
Susceptibility to change:	High to medium
Factors which increase susceptibility:	
• The view may be experienced by residents in the Burnside area. Views from many likely to be obscured by garden boundary planting. • The view is generally rural in character with some development characteristics.	
Factors which decrease susceptibility:	

Viewpoint 4: Upper Burnside	
• The view will be experienced for a short duration by road users, whose main attention may not be focused on their wider surroundings and will experience the site transiently at moderate speeds. • Shelterbelts and woodland along the Burn of Asleid as well as vegetation around properties provide screening towards the site. • The view has some existing development characteristics and displays characteristics of a human influenced landscape. • The development will be part of wide panoramic views available from this location.	
Sensitivity to change:	High to medium
Magnitude of change (construction/decommissioning)	
Duration:	Short term
Geographic extent:	Medium distance
Views such as these from approximately 1km of the minor roads around Burnside.	
Size or scale of change:	Moderate
• The construction of the onshore substations results in a moderate scale change in the view due to the construction compound and temporary buildings, vehicles, machinery, cranes and the stockpiling of materials that will be needed during construction. • The access to the site and its use will extend the construction area to the east of the Onshore Substation Area to where it connects with the minor road, although this may be partially obscured due to intervening vegetation/landform. • The construction processes will result in the addition of the fenced buildings and electrical infrastructure, which would be apparent to the east of and between the intervening woodland/shelterbelts. • Task and vehicle lighting may be used in the hours of darkness – but only during approved working hours. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area. • Some separation of substations from minor road by open fields, maintaining the agricultural fore and middle ground of views.	
Magnitude of change:	Medium
Magnitude of change (operation)	
Duration:	Long term
Geographic extent:	Medium distance
Views such as these from approximately 1km of the minor roads around Burnside.	
Size or scale of change:	Small

Viewpoint 4: Upper Burnside	
• Approximate distance to the onshore substations is approximately 950m from the properties and minor road. • The operation of the onshore substations will result in theoretical visibility of the addition of the fenced buildings and electrical infrastructure across approximately 15 degrees of the field of view from this location. However, existing woodland and shelterbelts markedly restrict this visibility even in the winter months. • Woodland and hedgerows will have been planted but will have little effect as components of the landscape until they are at least 5 years old. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • The buildings and electrical infrastructure will be seen on the skyline but some lower parts are obscured by intervening landform. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area. • The open agricultural foreground and burn corridor provide a separation between the substations and the minor road and properties.	
Magnitude of change:	Low
Magnitude of change (operation – 15 years post construction)	
Duration:	Long term
Geographic extent:	Medium distance
Views such as these from approximately 1km of the minor roads around Burnside.	
Size or scale of change:	Small
• The operation of the onshore substations, post a 15 year planting establishment period, will result in views of only the upper parts of buildings and electrical infrastructure being visible on the skyline above the existing and proposed native woodland that is to be planted around the substation site. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • Where visible the largely obscured built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area – however, these will be much less noticeable, particularly when the trees/hedges are in leaf. • The native woodland is characteristic of this landscape within the wider area and so will not contrast with the general landscape character.	
Magnitude of change:	Low
Significance of effect	
Construction/decommissioning:	**Significant,** adverse, short-term, reversible
Operation:	**Not significant,** adverse, long-term, reversible
Operation 15 years post construction	**Not significant,** adverse, long-term, reversible

Viewpoint 5 North Millbrex - Figure 5.3-34

Table 5.3-22 Viewpoint 5: North Millbrex

Viewpoint 5: North Millbrex	
Baseline conditions	
Grid reference: 382183 843638	Elevation: 116 m
View direction: 47	Distance: 1127 m
Viewpoint location: This viewpoint is taken from the T-junction in minor road at North Milbrex. It is representative of the views experienced by residents at the small cluster of properties at North Milbrex as well as minor road users travelling east. Views from the minor route and properties to the north around Blackpool may also be similar.	
Existing view: • Rural landscape. • Land uses primarily arable farmland and pasture. • Field boundaries generally determined by post and wire fences with some hedgerows and dry stone walls (consumption dykes) in varying conditions. • Range of vegetation, with patterns of woodland shelterbelts and blocks of coniferous woodland particularly noticeable, especially adjacent to the Burn of Alseid and along the skyline. • Gently rolling landform of subtle undulations contains views, with elevations generally between 100-120m AOD, then rising to form a strong horizontal skyline backdrop at approximately 130m AOD around the Slacks of Carinbanno. • Scattered detached houses and farmsteads spread across the landscape (including large agricultural buildings at Abbotshaugh and Burnside of Milbrex). • Large scale electrical pylons and overhead lines traverse the landscape in a line becoming progressively more distant in the left of the view, whilst smaller scale pylons are seen on the right up to the skyline between land to the north of North Milbrex and Middlemuir hill. • Network of minor roads and single track farm access lanes. The fenced route of the minor road to the east is a feature of this view.	
Sensitivity to change	
Value:	Medium
• The view is not a formally recognised viewpoint, nor does it overlook a designated landscape, so is not afforded particular protection through planning policy. • The viewpoint is located on a minor road adjacent to properties at North Milbrex so is easily accessible, although will not be experienced by large numbers of people. • Local interest in this view arises due to its slightly elevated location providing for moderately distant views towards Slacks of Cairnbanno by the local residents whose properties overlook it and by road users who are confronted with the view when they round the corner. • The view has some scenic qualities and interest relating to the patterns and features visible in the landscape, such as shelterbelts, woodland blocks and various field boundaries; as well as the rural/agricultural character that is indicative of the Agricultural Heartlands. However, the removal of hedgerow field boundaries has had a detrimental effect on the scenic qualities of the agricultural landscape. • The large scale electrical pylons and overhead lines which interrupt of the skyline to the east influence the scenic quality of the view. • The landscape of the view is not rare or remarkable and is typical of the agricultural landscape across Aberdeenshire.	
Susceptibility to change:	High to medium
Factors which increase susceptibility:	
• The view may be experienced by residents at North Millbrex and properties around Blackpool. • The view is generally rural in character with some development characteristics.	
Factors which decrease susceptibility:	

Viewpoint 5: North Millbrex	
• The view will be experienced for a short duration by road users, whose main attention may not be focused on their wider surroundings and will experience views towards the site transiently at moderate speeds. • Shelterbelts and woodland along the Burn of Asleid as well as some vegetation/buildings around properties provide some screening towards the site. • The view has some existing development characteristics and displays characteristics of a human influenced landscape. • The development will be part of wide panoramic views available from this location.	
Sensitivity to change:	High to medium
Magnitude of change (construction/decommissioning)	
Duration:	Short term
Geographic extent:	Medium distance
Views such as these available for approximately 1.2km of minor road around North Millbrex and properties in the vicinity of North Millbrex and Blackpool.	
Size or scale of change:	Moderate
• The construction of the onshore substations results in a moderate scale change in the view due to the construction compound and temporary buildings, vehicles, machinery, cranes and the stockpiling of materials that will be needed during construction. • The construction processes will result in the addition of the fenced buildings and electrical infrastructure, which would be apparent between the intervening woodland/shelterbelts. • Task and vehicle lighting may be used in the hours of darkness – but only during approved working hours. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area. • Some separation of substations from minor road by open fields, maintaining the agricultural fore and middle ground of views.	
Magnitude of change:	Medium
Magnitude of change (operation)	
Duration:	Long term
Geographic extent:	Medium distance
Views such as these available for approximately 1.2km of minor road around North Millbrex and properties in the vicinity of North Millbrex and Blackpool.	
Size or scale of change:	Moderate to small

Viewpoint 5: North Millbrex	
• Approximate distance to the onshore substations is 1.1 km from the properties and minor roads. • The operation of the onshore substations will result in theoretical visibility of the addition of the fenced buildings and electrical infrastructure across approximately 13 degrees of the field of view from this location. However, existing woodland and shelterbelts restrict this visibility even in the winter months. • Woodland and hedgerows will have been planted but will have little effect as components of the landscape until they are at least 5 years old. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • Due to the elevation of the viewpoint, receptors will be able to look down on the substations and the buildings and electrical infrastructure will be seen below the skyline, back-clothed by the more distant rolling landscape. • The built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area. • The open agricultural foreground and burn corridor provide a separation between the substations and the minor roads and properties.	
Magnitude of change:	Medium to low
Magnitude of change (operation – 15 years post construction)	
Duration:	Long term
Geographic extent:	Medium distance
Views such as these available for approximately 1.2km of minor road around North Millbrex and properties in the vicinity of North Millbrex and Blackpool.	
Size or scale of change:	Small
• The operation of the onshore substations, post a 15 year planting establishment period, will result in views of only the upper parts of buildings and electrical infrastructure being visible below the skyline but above the existing and proposed native woodland that is to be planted around the substation site. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • Where visible the largely obscured built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area – however, these will be much less noticeable, particularly when the trees/hedges are in leaf. • The native woodland is characteristic of this landscape within the wider area and so will not contrast with the general landscape character.	
Magnitude of change:	Low
Significance of effect	
Construction/decommissioning:	**Significant,** adverse, short-term, reversible
Operation:	**Significant,** adverse, long-term, reversible
Operation 15 years post construction	**Not significant,** adverse, long-term, reversible

Viewpoint 6 Upperton Figure - 5.3-35

Table 5.3-23 Viewpoint 6: Upperton

Viewpoint 6: Upperton	
Baseline conditions	
Grid reference: 384186 846009	Elevation: 103 m
View direction: 216	Distance: 1699 m
Viewpoint location: This viewpoint is located on the minor road from Slacks of Cairnbanno to Burnside. The viewpoint is taken from the edge of a ridge so represents some of the first views towards the site experienced by a road users when travelling from New Deer to Burnside. It is also representative of properties in the vicinity and the minor road to the south of Upper Cairnbanno from where there would be similar views.	
Existing view: • Rural landscape. • Land use primarily arable farmland, with some pastoral land. • Field boundaries generally determined by post and wire fences and scrubby hedgerows. • Range of vegetation, including woodland shelterbelts and blocks of coniferous woodland diversify the agricultural character of the view. • Gently rolling landform of subtle undulations, with areas of higher ground visible to the north-west, containing views. • Skyline formed by land near the overhead transmission line. • Scattered detached houses, farmsteads and outbuildings (Bridge Cottage, Abbotshaugh, Netherton of Greens, The Neuk, Cragganmore, Mill of Greens and Maryhill). • Large agricultural sheds at Abbotshaugh particularly noticeable. • Distinctive outline of North Millbrex Church present on distant skyline. • Large scale electrical pylons and overhead lines traverse the landscape and cross the skyline near the centre of the view. • Occasional single turbines visible on the skyline, including those on the Hill of Balquhindachy and at Skelmonae. • Network of minor roads and single-track, farm access lanes.	

Viewpoint 6: Upperton	
Sensitivity to change	
Value:	Medium
• The view is not a formally recognised viewpoint, nor does it overlook a designated landscape, so is not afforded particular protection through planning policy. • The viewpoint is located on the minor road leading from New Deer to Burnside, adjacent to the property at Upperton, so is easily accessible and will be experienced by limited numbers of people within the local area. There are no formal stopping points along the road to encourage road users to stop in this location. • Interest is provided in the view by its far-reaching, panoramic views towards the south-west available to residential receptors and road users who are confronted with the view when they descend down the hill. • The view has some scenic qualities and interest relating to the patterns and features visible in the landscape, such as shelterbelts, woodland blocks and various field boundaries, as well as the rural/agricultural character that is indicative of the Agricultural Heartlands. • The scenic qualities of the view are influenced by the large scale electrical pylons and overhead lines which interrupt the skyline and the large agricultural sheds at Abbotshaugh. Removal of hedgerows has also reduced the pattern and quality of the agricultural landscape. • The landscape is not rare or remarkable and is typical of large parts of rural Aberdeenshire.	
Susceptibility to change:	Residents - high to medium, minor road users- medium to low
Factors which increase susceptibility:	
• The view may be experienced by residents around Upperton and from the slightly more distant properties of and to the south of Upper Cairnbanno. • The view is generally rural in character with some development characteristics.	
Factors which decrease susceptibility:	
• The view will be experienced for a short duration by road users, whose main attention may not be focused on their wider surroundings and will experience views towards the site transiently at moderate speeds. • Shelterbelts and woodland along the Burn of Asleid and the minor road between Burnside and Burnend as well as some vegetation/buildings around properties may provide some screening towards the site. • The view has some large scale existing development characteristics and displays characteristics of a human influenced landscape. • The development will be part of wide panoramic views available from this location.	
Sensitivity to change:	Residents – High to medium, minor road users – medium to low
Magnitude of change (construction/decommissioning)	
Duration:	Short term
Geographic extent:	Medium to long distance
Views such as these available for approximately 2km of minor road east of Upperton and south of Upper Cairnbanno. Properties along these sections of the minor roads may also have such views.	
Size or scale of change:	Small to moderate

Viewpoint 6: Upperton	
• The construction of the onshore substations results in a small to moderate scale change in the view due to the construction compound and temporary buildings, vehicles, machinery, cranes and the stockpiling of materials that will be needed during construction. • The construction processes will result in the addition of the fenced buildings and electrical infrastructure, which would be apparent between the intervening woodland/shelterbelts on the skyline. • Task and vehicle lighting may be used in the hours of darkness – but only during approved working hours. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • The built forms will increase the development components within the landscape by the introduction of further large buildings and increasing the density and incidence of electrical infrastructure in this area. • Separation of substations from minor roads and properties by open fields, maintaining the agricultural fore and middle ground of views.	
Magnitude of change:	Medium to low
Magnitude of change (operation)	
Duration:	Long term
Geographic extent:	Medium to long distance
Views such as these available for approximately 2km of minor road east of Upperton and south of Upper Cairnbanno. Properties along these sections of the minor roads may also have such views.	
Size or scale of change:	Small
• Approximate distance to the onshore substations is more than 1.7 km from the properties and minor roads. • The operation of the onshore substations will result in theoretical visibility of the addition of the fenced buildings and electrical infrastructure across approximately 9 degrees of the field of view from this location. • Woodland and hedgerows will have been planted but will have little effect as components of the landscape until they are at least 5 years old. • Lighting of the substations will be visible at times, but this is assumed to be passive lighting (passive infra-red) and the onshore substations will not be permanently lit. • The proposed buildings and electrical infrastructure will be seen on the skyline, however the lower parts of some structures will be partially hidden by the intervening landform. • The built forms will increase the development components within the landscape by the introduction of further large buildings and increasing the density and incidence of electrical infrastructure in this area. • The open agricultural foreground and the valley of the Little Water provide a separation between the substations and the minor roads and properties.	
Magnitude of change:	Low
Magnitude of change (operation – 15 years post construction)	
Duration:	Long term
Geographic extent:	medium to long distance
Views such as these available for approximately 2km of minor road east of Upperton and south of Upper Cairnbanno. Properties along these sections of the minor roads may also have such views.	

Viewpoint 6: Upperton	
Size or scale of change:	Small
• The operation of the onshore substations, post a 15 year planting establishment period, will result in views of only the upper parts of buildings and electrical infrastructure being visible above the skyline and the proposed native woodland that is to be planted around the substation site. • Security lighting will be indistinguishable from other rural sources of light. • Where visible the largely obscured built forms will increase the development components within the landscape by the introduction of uncharacteristically large buildings and increasing the density and incidence of electrical infrastructure in this area – however, these will be much less noticeable, particularly when the trees/hedges are in leaf. • The native woodland is characteristic of this landscape within the wider area and so will not contrast with the general landscape character.	
Magnitude of change:	Low
Significance of effect	
Construction/decommissioning:	**Not significant,** adverse, short-term, reversible
Operation:	**Not significant,** adverse, long-term, reversible
Operation 15 years post construction	**Not significant,** adverse, long-term, reversible

Viewpoint 7 B9170 near New Deer - Figure 5.3-36

Table 5.3-24 Viewpoint 7: B9170 near New Deer

Viewpoint 7: B9170 near New Deer	
Baseline conditions	
Grid reference: 387929 845697	Elevation: 121 m
View direction: 250	Distance: 4767 m
Viewpoint location: This viewpoint is located on the B9170 road south-west of New Deer. It is taken looking west, just before the junction with the minor road which leads to Cairnbanno. This viewpoint is representative of the views experienced by motorists travelling along the B9170 from New Deer to South Balquhindachy. Views of the Bennachie uplands to the south are identified as valued views in the Aberdeenshire LDP. There is also a number of properties in the vicinity.	
Existing view: • Rural landscape. • Land uses primarily arable farmland, grazing land and pastures. • Field boundaries generally determined by post and wire fences and scrubby hedgerows. • Range of vegetation, including woodland shelterbelts and blocks of coniferous woodland, which diversify the woodland setting and add to the complexity of this view. • Gently rolling landform of subtle undulations, with the Bennachie range visible to the south-west of the site, containing views. • Scattered detached houses, farmsteads and outbuildings. • Areas of rough grassland/scrub in the viewpoint foreground. • Large scale electrical pylons and overhead lines traverse the landscape. Smaller pole mounted transmission lines are also visible adjacent to the road network • Occasional single wind turbines visible. • Network of B-roads, minor roads and single track farm access lanes. The B9170 is a key characteristic of this view.	
Sensitivity to change	
Value:	Medium-high

Viewpoint 7: B9170 near New Deer	
• Views of the Bennachie Uplands from the B9170 New Deer to Methlick Road are recognised as valued views in the Aberdeenshire LDP so are afforded protection through planning policy. This viewpoint is representative of these views. • In addition local interest is provided by its far-reaching and panoramic views available to road users and local residents. • The view is located on the B9170 road leading from New Deer to South Balquhindachy, so is easily accessible and will be experienced by moderate numbers of people within the local area. • The particular scenic qualities of the view relate to landscape patterns and features visible in the landscape (such as shelterbelts, woodland blocks and dispersed farmsteads) and the framed views towards the south-west and Bennachie Uplands, defined within the hill slopes lying either side of the B9170. • The scenic qualities of the view are influenced by large and small scale pylon and pole mounted transmission lines which are seen across the view and skyline.	
Susceptibility to change:	Medium to low
Factors which increase susceptibility:	
• The view may be experienced by residents around Myre of Bedlam. • The view is generally rural in character with some development characteristics.	
Factors which decrease susceptibility:	
• The view will be experienced for a short duration by road users, whose main attention may not be focused on their wider surroundings and will experience views towards the site transiently at moderate speeds. • There are few stopping points along the road so views will be experienced transiently. • Shelterbelts and woodland as well as some vegetation/buildings around properties break up the agricultural landscape and may provide some limited screening towards the site which is at some distance from this location. • The view has some large scale existing development characteristics and displays characteristics of a human influenced landscape. • The development will be part of wide panoramic views available from this location.	
Sensitivity to change:	Medium
Magnitude of change (construction/decommissioning)	
Duration:	Short term
Geographic extent:	Long distance
The proposed onshore substations would be theoretically visible from approximately 2km of minor road in the vicinity of the viewpoint and a small number of residences in the surrounding countryside.	
Size or scale of change:	Small
• The incidence of machinery and cranes may be visible on the site which is located below the skyline. • As the buildings and electrical infrastructure are constructed the movement, changes in landcover and activity of the construction process may draw attention to this new development. • At this range the detail of the proposals will be difficult to distinguish due to their location against a land backdrop.	
Magnitude of change:	Low
Magnitude of change (operation)	
Duration:	Long term
Geographic extent:	long distance
The proposed onshore substations would be theoretically visible from approximately 2km of minor road in the vicinity of the viewpoint and a small number of residences in the surrounding countryside.	
Size or scale of change:	Small

Viewpoint 7: B9170 near New Deer	
• Approximate distance to the onshore substations is more than 4.7 km from the properties and minor roads. • The operation of the onshore substations will result in theoretical visibility of the addition of the fenced buildings and electrical infrastructure across approximately 4 degrees of the field of view from this location. • Woodland and hedgerows will have been planted but will have little effect as components of the landscape until they are at least 5 years old. • Security lighting will be indistinguishable from other rural sources of light. • The proposed buildings and electrical infrastructure will be seen below the skyline, and the lower parts of some structures will be partially hidden by the intervening landform. At this range the detail of the proposed onshore substations will be difficult to discern, partly due to their backdrop of the landscape beyond. • The built forms will marginally increase the development components within the landscape by the introduction of further large buildings and increasing the density and incidence of electrical infrastructure in a small part of the view. The part of the view affected has existing pylons. • The open agricultural fore and middle ground provide a strong separation between the substations and the minor roads and properties.	
Magnitude of change:	Low
Magnitude of change (operation – 15 years post construction)	
Duration:	Long term
Geographic extent:	Long distance
The proposed onshore substations would be theoretically visible from approximately 2km of minor road in the vicinity of the viewpoint and a small number of residences in the surrounding countryside.	
Size or scale of change:	Small
• The operation of the onshore substations, post a 15 year planting establishment period, will result in views of only the upper parts of buildings and electrical infrastructure being visible above the proposed native woodland that is to be planted around the substation site. • Security lighting will be indistinguishable from other rural sources of light. • Where visible the largely obscured built forms will increase the development components within the landscape by the introduction of large buildings and increasing the density and incidence of electrical infrastructure in this area – however, these will be much less noticeable, particularly when the trees/hedges are in leaf. Such visibility will occur over only a very small vertical and horizontal extent of the view. • The native woodland is characteristic of this landscape within the wider area and so will not contrast with the general landscape character.	
Magnitude of change:	Low
Significance of effect	
Construction/decommissioning:	**Not significant,** adverse, short-term, reversible
Operation:	**Not significant,** adverse, long-term, reversible
Operation 15 years post construction	**Not significant,** adverse, long-term, reversible

Viewpoint 8 Culsh Hill (near Culsh Monument) - Figure 5.3-37

Table 5.3-25 Viewpoint 8: Culsh Hill (near Culsh Monument)

Viewpoint 8: Culsh Hill (near Culsh Monument)	
Baseline conditions	
Grid reference: 388099 848099	Elevation: 142 m
View direction: 232 degrees	Distance: 5998 m
Viewpoint location: This viewpoint is taken from Culsh Hill, near to the Hill of Culsh Monument (also known as the Dingwall Fordyce Monument). The monument was designed by James Matthews and erected in 1877 in honour of William Dingwall Fordyce M.P (1836-1875). The 24m high granite structure encompasses a Gibbs style steeple and spiral staircase, and was designated as a Category B building by Historic Scotland in 1971. Although there is no public access within the monument, it is an important local landmark. As views from the Monument to the site are obstructed by shelterbelt planting, this viewpoint has been taken from the road to the south-west of the cemetery, on Culsh Hill. This viewpoint is therefore representative of the route visitors to the monument and Commonwealth war graves at the cemetery may take.	
Existing view: • Land uses primarily arable farmland and grazing land. • Field boundaries generally determined by post and wire fences and some limited hedgerows. Fields are large and open • Range of vegetation, including woodland shelterbelts and blocks of coniferous woodland. • Gently rolling landform of subtle undulations in the local proximity, with far-reaching views to the distinctive Bennachie range beyond. • Settlement of New Deer visible with its two distinctive spires, as well as detached houses, large-scale farmsteads and outbuildings scattered throughout the landscape. • Large scale electrical pylons and overhead lines visible on the skyline. Smaller scale pylons are also visible, clustered particularly around New Deer's road network. • Occasional single turbines scattered across the wider landscape.	
Sensitivity to change	
Value:	Medium-high
• This viewpoint is located near to the Culsh Monument, which is identified on OS maps as a panoramic view. This monument is visually identifiable as a local landmark, and is well-known at a local level as having a particular panoramic view. • The panorama from the Culsh Monument is to the east and views to the south of the monument are screened by woodland in the immediate setting. • The viewpoint has been sited on the nearby public road, near the entrance to the cemetery, so is not afforded protection through planning policy, but has informal recognition for its panoramic views westwards towards the Bennachie Uplands. • The viewpoint is easily accessible and will be experienced by moderate numbers of people within the local area, including visitors to the Hill of Culsh Monument and Cemetery. • The particular character of the view relates to landscape patterns and features visible in the landscape (such as shelterbelts and woodland blocks); an elevated perspective over features in New Deer and an appreciation of the wider setting of the settlement within the landscape; and the views towards the Bennachie Uplands. • Several large scale electrical pylons and wind turbines interrupt the skyline but are far enough away from the viewpoint to not influence its scenic qualities.	
Susceptibility to change:	Low
Factors which increase susceptibility:	
• Location from where broad, panoramic views over a rural landscape are expected from this elevated location.	
Factors which decrease susceptibility:	

Viewpoint 8: Culsh Hill (near Culsh Monument)	
• No visibility of the proposed onshore substations.	
Sensitivity to change:	Medium
Magnitude of change (construction/decommissioning)	
Duration:	Short term
Geographic extent:	long distance
No change in views from this viewpoint or the area around it.	
Size or scale of change:	No change
• No change	
Magnitude of change:	No change
Magnitude of change (operation)	
Duration:	Long term
Geographic extent:	long distance
No change in views from this viewpoint or the area around it.	
Size or scale of change:	No change
• No change	
Magnitude of change:	No change
Magnitude of change (operation – 15 years post construction)	
Duration:	Long term
Geographic extent:	long distance
No change in views from this viewpoint or the area around it.	
Size or scale of change:	No change
• No change	
Magnitude of change:	No change
Significance of effect	
Construction/decommissioning:	No change
Operation:	No change
Operation 15 years post construction	No change

5.3.5 Cumulative Impact Assessment

Assessment of Cumulative Effects

Introduction

5.3.5.1 The objective of the Cumulative Impact Assessment (CIA) is to describe, visually represent and assess the ways in which the modified TI will have additional effects on SL&V receptors when considered together with other existing, consented or proposed and reasonably foreseeable developments and to identify related significant cumulative effects arising from the modified TI. The guiding principle in preparing the CIA of SL&V receptors is to focus on the likely significant effects and in particular those which are likely to influence the outcome of the consenting process, in accordance with the EIA Regulations.

5.3.5.2 The 'main' SLVIA (Section 5.3.4) assesses the effect of the modified TI in addition to developments already present in the landscape. This scenario involves the assessment of the addition of the modified TI to the existing baseline, which includes operational wind energy developments.

5.3.5.3 A whole project assessment has been undertaken to assess the likely significant cumulative effects of the modified TI in conjunction with the three wind farms as consented (i.e. 186 turbines as opposed to the 339 turbines assessed in the MORL ES (MORL, 2012).

5.3.5.4 An assessment of the likely significant cumulative effects of the whole project (as described above) with consented projects and the Western Development Area (WDA) has also been undertaken, including the following developments:

- Beatrice Offshore Windfarm Limited (BOWL) (including the offshore generation station and associated TI) as consented (i.e. 140 turbines as opposed to the 277 assessed in the BOWL ES (BOWL, 2012);
- WDA; and
- Other consented onshore wind energy developments within the OnTI Study Area (identified in Figure 5.3.38).

5.3.5.5 Consideration of onshore wind energy developments was specifically requested in Aberdeenshire Council's scoping response (Table 5.3-1). Based on consultation with Aberdeenshire Council, this CIA therefore focuses on the potential cumulative effect of the modified TI with onshore wind energy developments as the main 'relevant projects' in the assessment of the modified OnTI.

5.3.5.6 An application stage assessment of the likely significant cumulative effects of the whole project with unconsented planning applications has also been undertaken, which includes application stage onshore wind energy developments in the modified OnTI study area (identified in Figure 5.3-38).

5.3.5.7 A total cumulative assessment of the likely significant cumulative effects for the whole project with all other relevant projects has also been undertaken.

5.3.5.8 The cumulative effect assessed is the additional effect of the modified TI with the other project(s) or development(s).

5.3.5.9 An updated national development focusing on enhancing the high voltage transmission network is identified in National Planning Framework 3 (Scottish

Government, 2014), to facilitate increased renewable electricity generation across Scotland. Due to lack of detail (such as schedules and design parameters), it has not been possible to carry out an assessment of the likely cumulative effects of these anticipated future developments or some other anticipated proposals located in the Moray Firth, such as the Scottish-Hydro Electric Transmission Limited (SHE-T) cable, shipping and navigation and oil and gas activities.

Cumulative Impact Assessment (CIA)

5.3.5.10 An assessment has been undertaken as part of the CIA to determine the potentially significant cumulative effects that may arise as a result of the addition of the modified TI and to assess areas or aspects of the modified TI with limited or no interactions with other proposed developments, where cumulative effects will not be significant.

5.3.5.11 The effects of the OSPs on SL&V receptors were assessed in the context of the three consented wind farm sites in the main assessment in Section 5.3.4 of this chapter. The assessment did not consider the effect of adding the OSPs to the existing baseline on their own, without the three consented wind farm sites, as this would represent an unrealistic scenario. The construction/decommissioning and operation of the OSPs will result in no additional cumulative effects on SL&V receptors in the whole project assessment, as their effect in combination with the three consented wind farms is assessed in Section 5.3.4 of this Chapter.

5.3.5.12 The cumulative effects of the OSPs in relation to consented projects, the WDA and application stage projects were assessed in the MORL ES (MORL, 2012) in regards of eight OSPs. Due to the reduction in the number of OSPs proposed, the cumulative effect of the modified OSPs on SL&V receptors in relation to the three consented projects, the WDA, BOWL and application stage projects will reduce in magnitude for the modified OfTI and the cumulative effect of the OSPs is assessed as being not significant on SL&V receptors.

Modified Offshore Export Cable Route Corridor

5.3.5.13 The residual significance level of the construction/decommissioning and operation of the modified offshore export cable was assessed as not significant on all SL&V receptors in Section 5.3.4 of this ES. The cumulative effect of the modified offshore export cable on SL&V receptors in relation to the three consented wind farms, consented projects, the WDA and application stage projects is assessed as low in magnitude and not significant. This is due to the long distance of the three consented wind farms from receptors in Moray/Aberdeenshire, the long distance of the offshore export cable route corridor from receptors in Caithness/Sutherland, and because large sea-faring vessels used to install the modified offshore export cable are a common feature of the baseline seascape character of the Moray Firth. The additional effect of the construction of the modified offshore export cable is not significant in relation to the other projects.

5.3.5.14 During the operational period the modified offshore export cable will be installed in trenches in the sea bed and will not be a visible element of the modified TI during operation. The construction/decommissioning and operation of the modified offshore export cable will result in a negligible magnitude of change and not significant cumulative effects on all SL&V receptors, in relation to the three consented wind farms, consented projects, the WDA and application stage projects, with the exception of those outlined in the inshore area near the modified export cable landfall, which are considered below.

Modified Onshore Export Cable Route Corridor (and Landfall)

5.3.5.15 Potential cumulative effects during construction/decommissioning may also arise as a result of the construction of the modified onshore export cable landfall, occurring concurrently with the construction of the three consented wind farms, other consented projects, the WDA and application stage projects, in views from coastal areas of Boyndie Bay.

5.3.5.16 The residual significance levels of the construction/decommissioning and operation of these aspects of the modified TI are assessed separately in Section 5.3.4 of this chapter. Additional cumulative effects may arise as a result of the interactions of these aspects of the modified TI with the three consented wind farms, other consented projects, the WDA and application stage projects, influencing the coastal character of the Boyndie Bay CCA and the Cliffs of the North and South East Coast LCA and views from recreational areas around Inverboyndie Beach. The magnitude of these additional cumulative effects are assessed as low and not significant, primarily due to the long distance between the construction of the three consented wind farms, other consented projects, the WDA, application stage projects and the modified onshore export cable (and construction activities in the location of the cable landfall). Other factors include the temporary nature and relative ease of restoring cable landfall excavations as part of the export cables installation and because large sea-faring vessels used for the modified offshore export cable installation are a common feature of the baseline seascape character of the Moray Firth.

5.3.5.17 The residual significance level of the construction/decommissioning and operation of the modified onshore export cable was assessed as not significant on terrestrial landscape character (Western Coastland Farmland, Deveron and Upper Ythan Valley and Agricultural Heartlands LCAs) in Section 5.3.4 of this chapter. During the operational period the modified onshore export cable will be installed in trenches below ground and will not form an element of landscape character. During construction/decommissioning, there will be very limited/no interaction between the terrestrial landscape character areas within which the onshore export cable route is located and the three consented wind farms, BOWL or the WDA which are located at long distance offshore in the Moray Firth, beyond intervening terrestrial and coastal areas. The construction/decommissioning of the modified onshore export cable will result in a negligible magnitude of change and not significant cumulative effects on these terrestrial landscape character areas. Potential cumulative effects of the onshore export cable route during construction are likely to be confined to the coastal areas in Boyndie Bay around the modified export cable landfall, which are described above in relation to the cable landfall area.

5.3.5.18 During the operational period the modified onshore export cable will be concealed in trenches below ground and will not be a visible element of the modified TI. There are no cumulative effects predicted as a result of the modified onshore export cable during operation on visual receptors.

5.3.5.19 The visual effects of the construction/decommissioning of the modified onshore export cable route were assessed as likely to be significant in views from the hamlets of Keilhill and Fintry. There would also be 500 m – 2 km localised stretches of several A and B road routes in the vicinity of the modified onshore export route corridor where temporary significant effects on views experienced by road users may arise during the construction period. During construction/decommissioning, there will be very limited or no interaction between these settlements and roads in terrestrial areas in the vicinity of the modified onshore export cable route and the three consented wind farms, BOWL or the WDA which are located at a long distance offshore in the

Moray Firth, beyond intervening terrestrial and coastal areas. The construction/decommissioning of the modified onshore export cable, together with other projects assessed will result in negligible and not significant cumulative effects on these visual receptors. Potential cumulative visual effects of the onshore export cable route during construction are likely to be confined to the coastal areas in Boyndie Bay around the modified export cable landfall, which are described above in relation to the cable landfall area.

5.3.5.20 Potential cumulative effects during construction may also arise temporarily as a result of the construction of the modified onshore export cable occurring concurrently and in close proximity to the construction of consented and application stage wind energy developments (Figure 5.3-38). There is potential for cumulative construction stage effects on landscape character and visual amenity to occur locally in combination with several wind energy development proposals that are located either within or in close proximity to the modified offshore export cable route corridor, including South Colleonard, Backhill of Yonderton, Slackadale and Castle of Auchry (consented) and Balchers Wood, Knock Thunder Farm, Cairnhill Extension (application stage). The nature of such cumulative construction effects on landscape character and visual amenity is uncertain due to the lack of information about the construction methods for these wind energy developments and uncertainty of the timing of their construction programmes. Any cumulative effects on landscape character and visual amenity arising as a result of the construction of the modified onshore export cable and these wind energy developments are likely to be localised, short-term and not significant.

Onshore Substations

5.3.5.21 There will be no significant cumulative effects arising on landscape and visual receptors in the onshore substations Study Area as a result of the modified OnTI with the three consented wind farms, the WDA and BOWL, due to the geographic separation between the onshore substations and these projects, which results in no interactions between these components of the modified Project and other developments in the area.

5.3.5.22 The cumulative effects on SL&V receptors arising as a result of the construction/decommissioning and operation of the onshore substations with consented and application stage wind energy developments (Figure 5.3-38) are assessed as low and not significant. There are no consented or application stage wind energy projects within the vicinity of the onshore substations. The closest consented wind energy development is Oldwhat Mains single wind turbine located 7.1 km to the north, outwith the onshore substation Study Area. The closest application stage wind energy development is Wardford Farm single wind turbine located 5.5 km to the south of the onshore substation area (Figure 5.3-38). There will therefore be no significant cumulative effects arising on landscape and visual receptors in the onshore substation Study Area as a result of the operation of the onshore substations with consented and application stage wind energy developments.

5.3.6 References

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