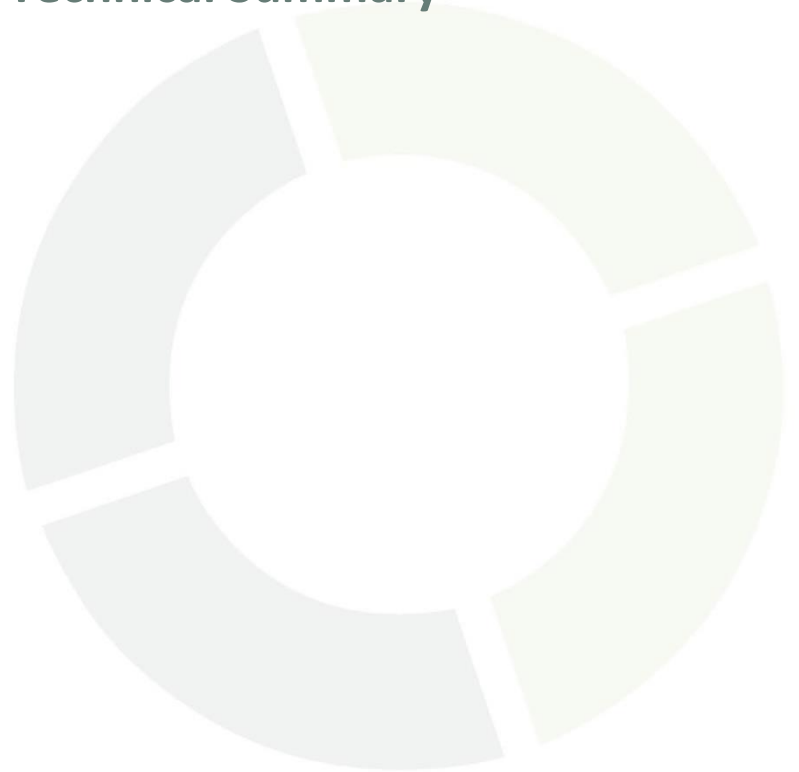


MORAY WEST OFFSHORE WINDFARM

Onshore Transmission Infrastructure Environmental Impact Assessment (EIA)

Moray Offshore Windfarm (West) Limited

Volume 1: Non-Technical Summary



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Acronyms	
Acronym	Expanded Term
Abbreviation	Expanded Term
AC	Aberdeenshire Council
BS	British Standard
CION	Connections and Infrastructure Options Note
dB	A measure of sound pressure level in dB, as specified in BS EN 61672-2:2003 Electroacoustics: Sound level meter (SLM).
EDPR	EDP Renovaveis
EIA	Environmental Impact Assessment
EU	European Union
GEART	Institute of Environmental Assessment (IEA) publication Guidance Notes No. 1: Guidelines for the Environmental Assessment of Road Traffic (1993)
GVA	Gross Value Added
GW	Gigawatts
HDD	Horizontal Directional Drilling
HGV	Heavy goods vehicles
LCT	Landscape Character Type
LDP	Local Development Plan
LNCS	Local Nature Conservation Site
LVIA	Landscape and Visual Impact Assessment
MC	Moray Council
MHWS	Mean High Water Spring
MLWS	Mean Low Water Spring



Acronyms	
Acronym	Expanded Term
Moray East	Moray Offshore Windfarm (East) Limited
Moray Offshore	Moray Offshore Renewable Power Limited
Moray West	Moray Offshore Windfarm (West) Limited
MW	Megawatts
NETS	National Electricity Transmission System
NGET	National Grid Electricity Transmission Limited
NPF3	National Planning Framework 3
NTS	Non-Technical Summary
NVC	National Vegetation Classification
OfTI	Moray West Offshore Transmission Infrastructure
OnTI	Moray West Onshore Transmission Infrastructure
PAB	Planning Application Boundary
PAC	Pre-Application Consultation
PCTMP	Preliminary Construction Traffic Management Plan
PPP	Planning permission in principle
SDP	Strategic Development Plan
SEPA	Scottish Environment Protection Agency
SHE-T	Scottish Hydro Electric Transmission
SLA	Special Landscape Area
SLM	Sound level meter
SNH	Scottish Natural Heritage



Acronyms	
Acronym	Expanded Term
SPP	Scottish Planning Policy
SSSI	Site of Special Scientific Interest
TJB	Transition Joint Bay
WFD	Water Framework Directive
ZTV	Zone of Theoretical Visibility





Introduction

This document is a Non-Technical Summary (NTS) of the Environmental Impact Assessment (EIA) Report prepared for the Moray West Onshore Transmission Infrastructure (OnTI). Moray Offshore Windfarm (West) Limited (Moray West) is promoting development of the OnTI as an integral element of the proposed Moray West Offshore Wind Farm, a wind energy development to be located in the outer Moray Firth, approximately 22.5 km from the Caithness coastline and 31.5 km from the Moray coastline at its nearest points (see Figure 1). This NTS provides summary details of the OnTI and presents a summary of the main findings of the EIA undertaken.

This NTS is intended to act as a stand-alone document that will provide an overview of the environmental effects of the OnTI using non-technical language. More detailed information is contained within the full EIA Report, which is referred to throughout this NTS.

The purpose of the EIA Report is to present the environmental information that has been assembled to carry out an assessment of the potential environmental effects of the OnTI. The Planning Application Boundary (PAB) for the OnTI is located in both the Aberdeenshire Council (AC) and the Moray Council (MC) areas (see Figure 2). Two separate applications for planning permission in principle (PPP) have therefore been submitted, one to each Council. However, the EIA Report covers the entire PAB and accompanies both applications. It will be circulated to a number of consultees to enable them to understand the potential effects of the OnTI and help inform consultation responses to the Councils. The EIA Report and these consultation responses will aid the Councils in determining the planning applications.

The Developer

Moray West is owned 100 % by Moray Offshore Renewable Power Limited (Moray Offshore). Moray Offshore holds the Zone Development Agreement under which it has exclusive rights to investigate and develop offshore wind farms in the Moray Firth Zone. EDP Renewables UK Limited in turn owns 100 % of Moray Offshore, and itself is 100% owned by EDP Renovaveis (EDPR).

EDPR is a leading global renewable energy company, headquartered in Madrid, operating in markets around the globe and is continuously expanding its business to new regions making the commitment to lead in each market as well as create value for its stakeholders and shareholders. As of 2017, EDPR



managed a global portfolio of 10.8 gigawatts (GW) spread over 11 countries. This includes 2.4 GW in Spain, 1.3 GW in Portugal and 1.6 GW across the rest of Europe which accounts for 49 % total GW, a further 47 % across North America including 5.1 GW in US and the remaining 4 % distributed across Canada (30 megawatts (MW)), Mexico (0.2 GW) and Brazil (0.2 GW).

Figure 1: Moray West Site and Offshore Export Cable Corridor

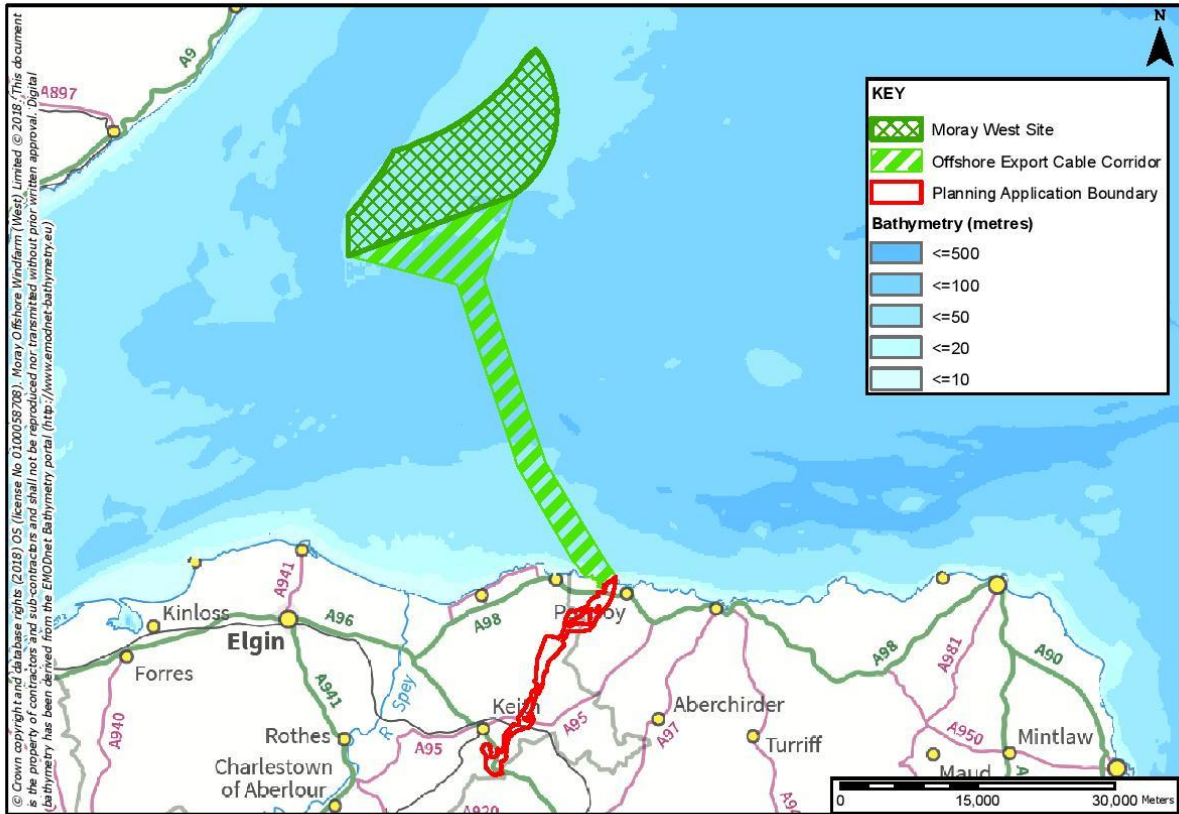
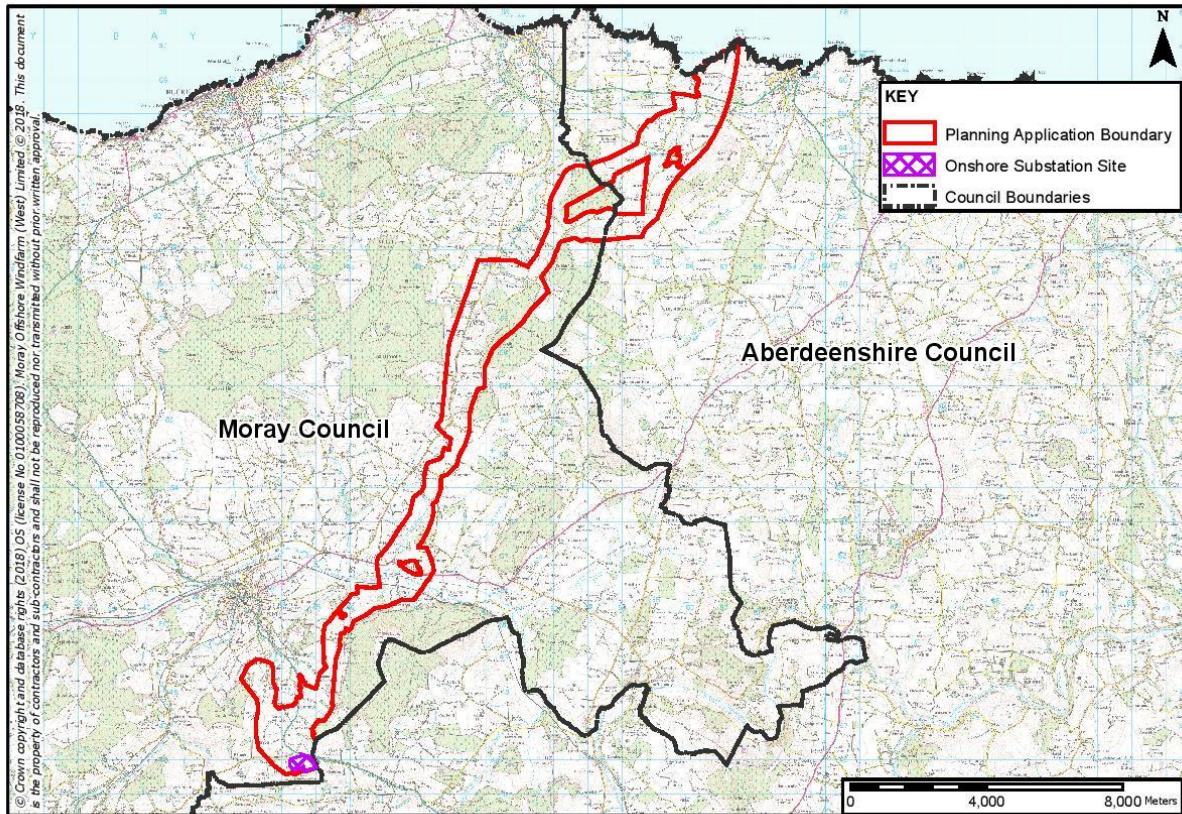


Figure 2: Planning Application Boundary and Onshore Substation Site



Moray West Offshore Wind Farm

The Moray West Offshore Wind Farm will comprise an offshore array of up to 85 wind turbine generators, connected to one another by subsea inter-array cables, which will in turn connect the wind turbine generators to the Moray West Offshore Transmission Infrastructure (OfTI). The OfTI will comprise one or



two offshore substation platforms (joined by an interconnector cable if two are required) and offshore export cable circuits that will carry the power generated by the Moray West Offshore Wind Farm ashore at a location along the Aberdeenshire coastline.

It should be noted that a further application for a Section 36 consent under the Electricity Act 1989, and a Marine Licence under the Marine and Coastal Access Act 2009, has been submitted to Scottish Ministers for the Moray West Offshore Wind Farm and OfTI. Information on the Moray West Offshore Wind Farm and OfTI can be found within the 'Moray West Offshore Wind Farm. Volume 2: Environmental Impact Assessment Report. June 2018' and 'Moray West Offshore Wind Farm. Volume 1: Non-technical Summary. June 2018'.

Overview of the OnTI

The OnTI is required to transmit the power generated by the Moray West Offshore Wind Farm from the Aberdeenshire coastline inland to be fed into the National Electricity Transmission System (NETS) at the existing Blackhillock substation approximately 1.5 km south of Keith in Moray. In summary, it will comprise the following:

- Offshore export cable circuits – These will transmit power beneath the seabed from the site of the Moray West Offshore Wind Farm ashore to transition joint bays located along the Aberdeenshire coastline in the vicinity of Redhythe Point. The EIA only considers the offshore export cables to the extent they exist between Mean Low Water Springs (MLWS) and the transition joint bays (TJBs);
- TJBs – These will be buried structures above Mean High Water Springs (MHWS) located near the coast that will act as the interface between the offshore export cables and onshore cable circuits;
- Onshore cable circuits – These will transmit power underground between the TJBs and the proposed onshore substation;
- Onshore substation – This is required to transform the power to the appropriate voltage before feeding it into the NETS at the transmission interface point (the existing Blackhillock substation approximately 1.5 km south of Keith, Moray); and
- Onshore cable circuits – Further interconnecting underground cable circuits will link the proposed onshore substation and the existing Blackhillock substation.



Site Selection and Alternatives

The EIA Regulations require that an EIA Report provides a description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) that have been considered for a development. The alternatives that have been considered in designing the OnTI are detailed in the EIA Report at Chapter 2: The Proposed Development.

Site Selection for the Moray West Offshore Wind Farm

In 2009, Moray Offshore Renewables Limited, now known as Moray Offshore Windfarm (East) Limited (Moray East), was established as a joint venture company which was awarded offshore wind development rights for Zone 1 (the Moray Firth) of the Crown Estate's third offshore wind licensing round (EDP Renewables UK Ltd was the lead partner in the venture and is now the sole owner). Zone 1 is located on the Smith Bank in the outer Moray Firth and covers 520 km² (281 nm²) (see Figure 1).

An initial appraisal found that, at the time, due to other human activities, more constraints existed in the west of the Zone than in the east. Such activities were expected to change over time, and consequently the decision was taken to divide the Zone into eastern and western development areas, and to develop the eastern area first. These areas are now referred to as the Moray East and Moray West sites respectively.

Once consents had been secured for developments within the Moray East site, investigations into developing the Moray West site commenced. As anticipated, the constraints initially identified had diminished over time. Although some new hard constraints were identified, it was considered that the site could still accommodate new wind farm infrastructure and work began on the Moray West Offshore Wind Farm.

Identification of the Transmission Interface Point

In order to identify the transmission interface point, i.e. the location where the OnTI will connect to the NETS, Moray West began discussions with National Grid Electricity Transmission Limited (NGET) and Scottish Hydro Electric Transmission (SHE-T) in 2016. NGET then commenced what is known as the Connections and Infrastructure Options Note (CION) process. This considered a number of potentially suitable transmission interface points on an understanding of the NETS capacity in relation to the location of the site of the Moray West Offshore Wind Farm, as well as its potential generating capacity and development timescales.



The CION process undertaken by NGET appraised a variety of options, considering economic, environmental and efficiency concerns. An important element of the CION process is the cost to be passed on to the consumer (the public and businesses) as a result of the works required to ensure the NETS can accommodate the wind farm. In April 2017, Moray West was formally offered the transmission interface point of the existing Blackhillock substation, allowing identification of the PAB to commence.

Identification of the Onshore Landfall Area

On the identification of Blackhillock substation as the transmission interface point, an initial desk-based assessment of potential locations for the Onshore Landfall Area along the Moray / Aberdeenshire coast was undertaken. This process took account of the preference for the offshore export cable circuits to take, where possible, the shortest route from the Moray West site to the coastline in order to minimise transmission losses and costs.

The desk-based assessment also considered the following:

- Avoidance of areas designated for nature conservation / other features of importance;
- Avoidance of areas used for defence purposes;
- Avoidance of high cliffs;
- Ability to access foreshore for construction and installation;
- Water depth, seabed morphology and sediment;
- Avoidance of residential property;
- Avoidance of Common Good Land;
- Minimisation of third party interactions; and
- Identification of a viable topographical corridor for cable installation

On this basis, potential locations for the Onshore Landfall Area were identified between Portknockie in Moray to Portsoy in Aberdeenshire. A number of these locations were then visited and appraised by a multi-disciplinary team of environmental and consenting specialists, construction and installation engineers and commercial managers. For the purposes of the EIA, a stretch of the Aberdeenshire coastline measuring approximately 1.7 km has been selected in the vicinity of Redhythe Point. This includes options for which further engineering and environmental constraints will be considered before a final location is selected.



Identification of Onshore Substation Site

An initial search area of 3 km from the existing Blackhillock substation was established to identify a site for the proposed onshore substation. A longlist was shortlisted to five sites, following the gathering of data and completion of site visits. All five sites were fields in agricultural use located away from populated areas. The sites were similar regarding environmental and consenting risks, with none located within or adjacent to any statutory environmental designations.

The selected site to underpin the EIA and planning applications is approximately 2.5 km south of Keith, Moray. It has the most level topography of all five sites considered and is closest to the existing public road network, including an existing access road which could be utilised. Although not the closest of the five sites to the existing Blackhillock substation, at approximately 1.5 km to the south-east, it is considered the most technically viable with regard to routing of the interconnecting cable circuits and existing plantation forestry (Pitlurg Wood) affords it visual screening to the north and west. The onshore substation site is shown on Figure 3.

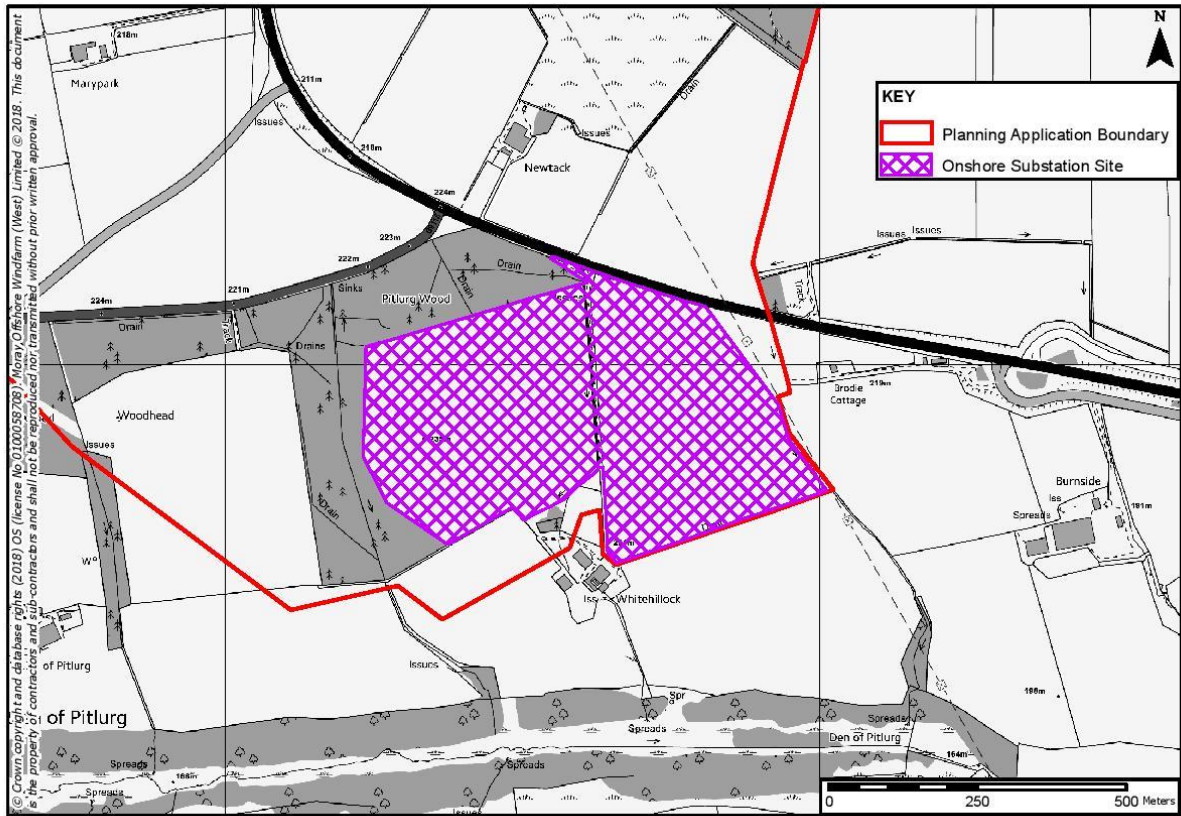
Identification of the Planning Application Boundary

The PAB comprises a corridor that runs approximately 28 km between the Onshore Landfall Area and the onshore substation site, before being routed approximately 3 km towards the existing Blackhillock substation. This corridor varies in width from approximately 2.2 km to a minimum width of 270 m. It should be noted that installation of the onshore cable circuits will only require a corridor within this PAB around 30 m wide (widened in locations where there is a technical necessity) known as the working width. One purpose of the PAB is to provide sufficient area for the identification of this 30 m wide corridor at the detailed design and planning stages of the OnTI.

As with identification of the Onshore Landfall Area, the PAB has been identified through a feasibility and refinement process taking into consideration environmental and consenting constraints, as well as technical requirements. The PAB is shown on Figure 2.



Figure 3: Onshore Substation Site



The Proposed Development

A full description of the OnTI can be found in the EIA Report at Chapter 2: The Proposed Development. The content of Chapter 2 of the EIA Report underpins the EIA by providing the design parameters to be assessed. At this stage the description has been prepared to include sufficient flexibility to accommodate further refinement during the detailed design and planning stages of the OnTI.

Offshore Export Cable Circuits

Electricity generated by the Moray West Offshore Wind Farm will be transmitted to shore by two buried offshore export cable circuits, each comprising a number of conductor cores, usually made from copper or aluminium. Each circuit will be installed in a separate trench and buried to a depth that will provide a suitable level of protection. The required depth of lowering is expected to be between 0 m and 3 m below the seabed (depending on substrate strength and other activities in the area).

The EIA Report considers these offshore export cables only where they will be located between MLWS and the TJBs.

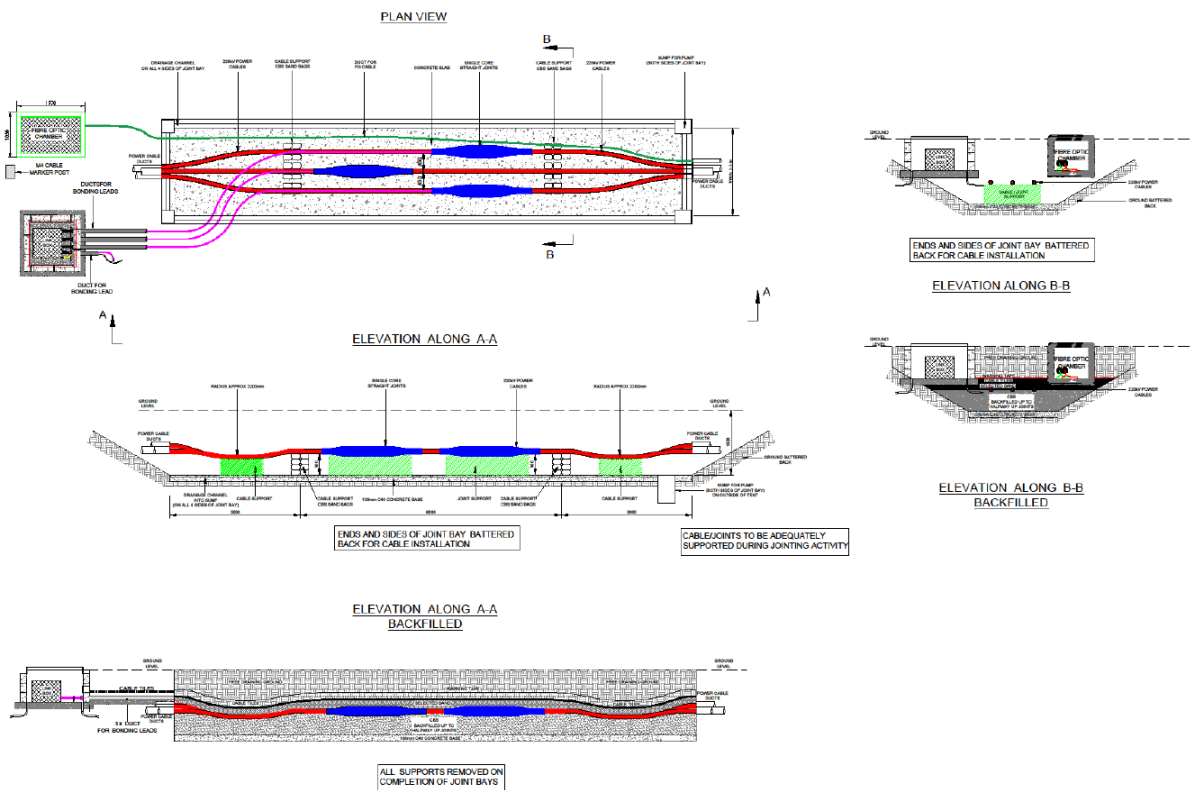
Depending upon the location of the landfall, burial of the offshore export cables will either be by installation in a trench or underground routing below the shoreline using a technique such as horizontal directional drilling (HDD), or a combination of both.

Transition Joint Bays

The offshore export cable circuits and the onshore cable circuits will be connected within the TJBs. There will be two TJBs installed inland of MHWS, but as close to the coast as practicable. Each TJB will measure approximately 20 m x 5 m x 2.5 m (length x width x depth). It is likely that they will be concrete lined excavations containing the cable joints and cable circuits. Once operational, the TJBs themselves will not be visible at the surface, although adjacent to each there will be a link box. These are required at cable joints and terminations to provide easy access for cable testing and fault location purposes. The link boxes will require several surface level access covers near the TJBs; these will each measure approximately 1.5 m x 4 m. A plan and cross section of a typical single circuit joint bay are presented as Figure 4.



Figure 4: Plan and Cross Section of a Typical Single Circuit Joint Bay



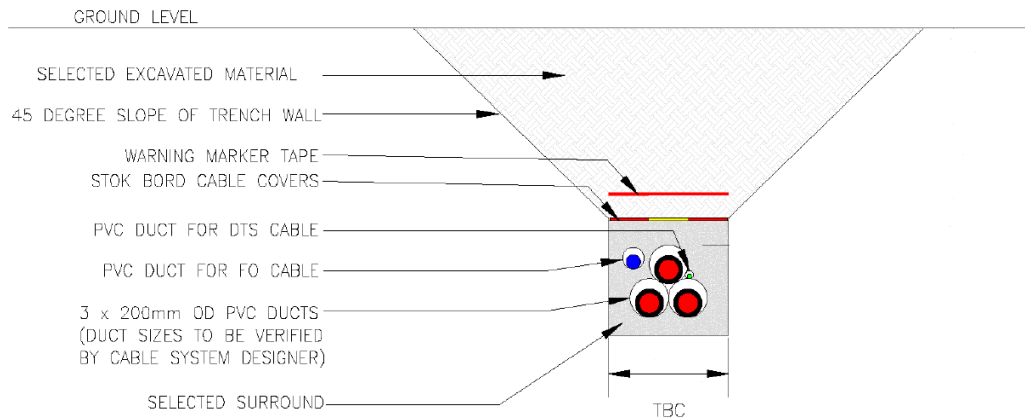
Onshore Cable Circuits

On exiting the TJBs, the onshore cable circuits will be routed inland towards the onshore substation. The onshore cable circuits will cover a length of 28 km and each circuit will comprise three separate cables in trefoil formation buried in an individual trench (two parallel trenches in total). Depending upon land use and ground conditions, the target burial depth will be 1 m and the cable circuits may be contained within



ducts. If required, imported burial materials may be used, e.g. sand. A cross section of a typical buried cable circuit is presented as Figure 5.

Figure 5: Cross Section of a Typical Buried Cable Circuit

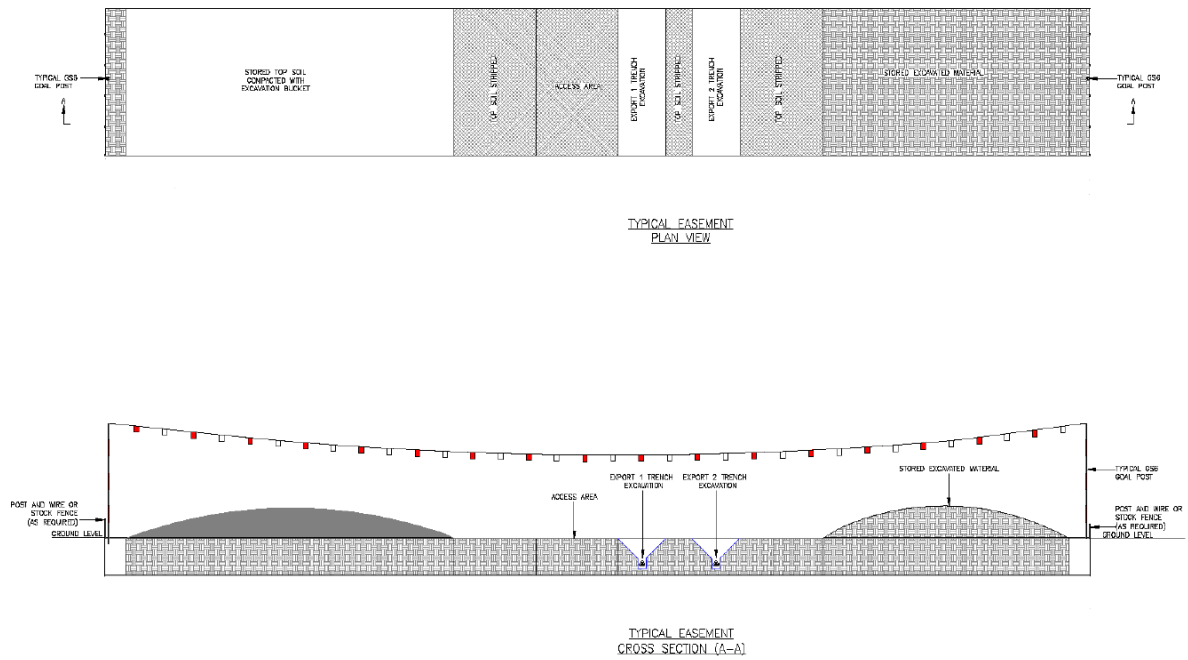


The onshore cable circuits will be installed in 750 to 1,000 m lengths which will be connected in joint bays. These will be installations similar to the TJBs, also with surface level access covers. Fibre optic communication links may also be installed, either embedded within the onshore cables or as separate, smaller cables running alongside within the same trench.

The main burial method for the onshore cable circuits will be open trench. A typical plan and cross section of the 30 m wide working corridor required to install the onshore cable circuits are presented as Figure 6. Trenchless burial methods will be employed in certain circumstances, such as installing the onshore cable circuits beneath sensitive watercourses or parts of the road network. These methods may include HDD or auger boring, which will limit related construction disturbance. Disturbance and disruption to properties, roads and traffic short-term and will be managed (e.g. through the provision of Construction Traffic Management Plan and temporary diversions or access roads).



Figure 6: Plan and Cross Section of a Typical Working Corridor for installing the Onshore Cable Circuits



Onshore Substation

Before connecting to the NETS at the existing Blackhillock substation, it will be necessary to transform the electricity generated by the Moray West Offshore Wind Farm. A new onshore substation will be required for this purpose.

The onshore substation will have a footprint of approximately 60,000 m². Much of the equipment installed will be external, although permanent buildings will also be required. The number and size of buildings (with maximum height of 13m) will depend upon whether the chosen switchgear is gas or air



insulated; should gas insulated switchgear be selected it is likely that more equipment will be housed within buildings. Equipment likely to be installed at the onshore substation site includes:

- Gas or air insulated switchgear;
- Super grid transformers;
- Reactors;
- Dynamic reactive compensation equipment;
- Harmonic filters;
- Supervisory control and data acquisition equipment;
- Metering;
- Control room; and
- Ancillary equipment and services.

A perimeter fence will be erected around the site and external lighting will be installed, although this will only be used during maintenance visits.

Construction of the OnTI

It is expected that construction of the OnTI will take place over a 30 month period, currently estimated to be between 2022 to 2024.

A temporary working corridor of approximately 30 m in width will be required to install the onshore cable circuits. Within this corridor there will be two trenches around 4 m in width (one trench per cable circuit), a construction vehicle haul route and strips alongside each trench to allow for cable installation and the storage of construction and excavation materials. Temporary access tracks will be required linking the working corridor with the local road network. Efforts will be made to limit the footprint of works and disturbed areas will be suitably reinstated once the onshore cable circuits have been installed.

The creation of temporary construction compounds will be required. It is likely that there will be a main compound at the site of the onshore substation and a further three within the PAB.

Operation and Maintenance of the OnTI

During operation, the OnTI will not be permanently staffed. It is expected that the presence of staff onsite will be limited to maintenance visits. Although individual pieces of equipment will be replaced as and when required, no major refurbishment works are envisaged.



The onshore cable circuits will be installed with protection such that their operation will largely be maintenance free. Non-intrusive routine testing will be undertaken. Should damage or a fault occur, testing will identify its specific location so that any excavations or infrastructure replacement can be isolated.

During operation, it is likely that the onshore substation will be visited fortnightly for routine inspection. Each visit will generally involve one or two service engineers undertaking standard maintenance activities, e.g. the testing of equipment and replenishment of oils.

Decommissioning of the OnTI

The Moray West Offshore Wind Farm will have a design life of up to 50 years and the OnTI will operate throughout this period. It is possible that once the Moray West Offshore Wind Farm reaches the end of its life, the onshore substation will be retained, and absorbed into the wider NETS.

However, should the OnTI be decommissioned, the most likely scenario is that all underground equipment and the onshore substation foundations will remain in-situ. Additionally, the assessment assumes that in the worst case scenario the buried cable circuits present within the intertidal area will be fully removed, aligning the approach in this overlapping area to that of the Offshore EIA. Above ground equipment at the onshore substation site will be removed and the site reinstated. It is considered that the removal of underground infrastructure will cause unnecessary disturbance and therefore the proposal to leave this in-situ is currently the most desirable approach to decommissioning.

Policy and Legislation

The OnTI will not be developed in isolation; its purpose is to realise the benefits of the Moray West Offshore Wind Farm. The key policy drivers underpinning the need for the Moray West Offshore Wind Farm, and therefore the associated OnTI, are as follows:

- Reduction of greenhouse gas emissions, including increasing energy generation from low carbon sources to replace high carbon energy sources such as burning coal and oil; and
- Delivery of energy security, including:
 - Safe, affordable, reliable and preferably local energy generation for the UK market;
 - Replacement of existing old energy generation infrastructure;



- Supporting expected electricity demand whilst meeting climate change commitments; and
- Securing economic opportunities from energy infrastructure.

Legislative Requirements

Town and Country Planning (Scotland) Act 1997 (as amended)

The OnTI will be determined under the Town and Country Planning (Scotland) Act 1997 (as amended), which is the legislation regulating land use planning matters in Scotland. Under Section 25 of the Act, the determination of all planning applications must be made in accordance with the statutory development plan, unless material considerations indicate otherwise. This requirement is reinforced by Section 37(2) of the Act.

The Requirement for Environmental Impact Assessment (EIA)

The legislative framework for Environmental Impact Assessment (EIA) is provided by European Directive 2011/92/EU (the EIA Directive), which codified the earlier European Directives 85/337/EEC, 97/11/EC and 2009/31/EC. Subsequently, the EIA Directive 2014/52/EU amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment was brought into force on 15th May 2014. Directive 2014/52/EU was to be implemented over three years with a deadline of 16th May 2017; it has now been transposed into Scottish law by The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017, as amended (the EIA Regulations).

The purpose of these provisions is to ensure that, in considering whether to permit developments that are likely to have significant environmental effects, the consenting authorities have all the necessary environmental information on which to base their decision.

Development Planning Policy

National Planning Framework 3 (2014)

National Planning Framework 3 (NPF3) provides the statutory basis for orientation of Scotland's long-term spatial development. NPF3 highlights the spatial planning implications of multiple national policy documents and commitments, including the binding decarbonisation targets enshrined within the Climate Change (Scotland) Act 2009.



Overall NPF3 emphasises the Scottish Government's commitment to increasing sustainable economic growth across all areas of Scotland and therefore orientates the efforts of Scotland's planning system towards this purpose. In its introduction, NPF3 notes the importance of maintaining economically active and vibrant rural areas whilst "safeguarding our natural and cultural assets and making innovative and sustainable use of our resources". The national spatial strategy of NPF3 is structured around four key themes, namely:

- A successful, sustainable place;
- A low carbon place;
- A natural, resilient place; and
- A connected place.

Annex A of NPF3 sets out the statements of need and technical descriptions for 'national developments', as defined within The Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009 (as amended). Within statement of need and technical description 4 (High Voltage Electricity Transmission Network), it is considered that the OnTI falls under development class 2C, described as "*new and / or upgraded onshore converter stations directly linked to onshore and/or offshore electricity transmission cable(s) of or in excess of 132 kilovolts*".

Scottish Planning Policy (2014)

Scottish Planning Policy (SPP) sets out the Scottish Government's expectations regarding specific issues within development planning and development management. The document aims to contribute to the Scottish Government's overarching purpose of achieving sustainable economic growth.

The SPP's Principal Policy on Sustainability (paragraphs 24 to 35) includes a presumption in favour of development that contributes to sustainability. To implement this, the SPP (paragraph 29) identifies 13 sustainable development principles which should guide planning policies and decisions.

Paragraph 156 of the SPP requires strategic development plans to support developments relating to the transmission of electricity and associated infrastructure. The SPP advises that consideration should be given to underground grid connections where possible (paragraph 165).

The SPP also establishes detailed provisions which relate to the OnTI regarding the following Subject Policies:



- Promoting Rural Development (paragraphs 74 – 91);
- Valuing the Historic Environment (paragraphs 135 – 151);
- Planning for Zero Waste (paragraph 175 – 192);
- Valuing the Natural Environment (paragraph 193 – 233); and
- Managing Flood Risk and Drainage (paragraphs 254 – 268).

The above listed Subject Policies detail provisions to safeguard designated ecological and historical assets; ensure developments are sustainable and do not contain any unacceptable environmental and amenity effects; and ensure net socio-economic benefits are considered in planning determinations.

The Statutory Development Plan

The current statutory Development Plan applicable to the PAB as it is located within Aberdeenshire comprises the approved Aberdeen City and Shire Strategic Development Plan (SDP) (2014), the adopted Aberdeenshire Local Development Plan (LDP) (2017) and adopted statutory Supplementary Guidance to the LDP. The current statutory Development Plan applicable to the PAB as it is located within Moray comprises the adopted Moray LDP (2015) and associated Supplementary Guidance.

These documents contain the policies and policy guidance against which the acceptability of the OnTI will be determined by AC and MC. The key policies of relevance to the OnTI are set out in more detail in the EIA Report at Chapter 4: Planning Policy Context.

The Environmental Impact Assessment Process

A full description of the EIA method is set out in the EIA Report at Chapter 3: The Environmental Impact Assessment Process. The EIA Report describes the potential effects of the OnTI on the environment arising from its construction, operation, maintenance and decommissioning. If significant effects are predicted, the EIA process identifies measures to reduce them an acceptable level. A full description of the EIA method is set out in the EIA Report at Chapter 3: The Environmental Impact Assessment Process.



Scoping and Consultation

The process of establishing which aspects of the environment need to be considered by an EIA is referred to as 'Scoping'. A developer may request that a determining authority provides an opinion on the 'Scope' of an EIA.

Moray West submitted a single Scoping Report (2017) to both AC and MC with a request for a Scoping Opinion in June 2017. The Scoping Report set out proposed scopes for the assessments to be presented within the EIA Report, as well as a preliminary EIA methodology. A joint Scoping Opinion was received from AC and MC in August 2017, accompanied by Scoping consultation responses from Historic Environment Scotland, Scottish Environment Protection Agency (SEPA), Scottish Natural Heritage (SNH) and Scottish Water. The Scoping Opinion and scoping responses directed the EIA of the OnTI and informed preparation of the EIA Report

Following submission of the planning applications there will be a period of formal consultation where all advisors, stakeholders, organisations, local communities and individuals who live, work or have an interest in the PAB will be given the opportunity to comment. Moray West will continue its consultation with all interested parties, including local communities, during this period to keep them informed on progress of the OnTI.

Assessment Methodology

The EIA Report presents a number of assessments in relation to several different disciplines, e.g. Ecology and Nature Conservation or The Historic Environment. For each discipline, the general process followed include:

- Scoping, to determine those matters to be addressed by the EIA and the contents of the EIA Report;
- Data review, including compiling and reviewing available data and / or undertaking of baseline surveys to generate site-specific data;
- Assessment and design iteration, whereby the potential significant effects of the OnTI during construction, operation and decommissioning are assessed, and conclusions fed back into the design in order to avoid, prevent, reduce and, where possible, offset any significant adverse effects on the environment;



- Assessment of the construction methodology for, and final design of, the OnTI;
- Identification of any residual effects and any further mitigation or compensation requirements; and
- Preparation of EIA Report documentation.

Baseline Conditions

In order to predict and assess the effects of the OnTI, it has been necessary to understand the existing state of the receiving environment (the 'baseline conditions'). The EIA Report presents a description of the baseline conditions for each discipline. The baseline conditions of the PAB and discipline specific study areas form the basis of the assessments, enabling the potential significant effects of the OnTI to be identified. Determining baseline conditions draws on existing information where available, or site-specific data collected for the purposes of the assessments.

Embedded Mitigation

EIA is an integral and ongoing part of the design process for the OnTI. During the EIA, as the potential environmental effects of the OnTI have become apparent, considerations on how to avoid or reduce them have been fed back into the design process. The EIA has therefore been used as a means of informing and improving the design. The OnTI assessed within the EIA Report consequently includes a range of measures that have been designed to reduce or prevent significant negative environmental effects from occurring. The assessments have taken these 'embedded' mitigation measures into account when considering the potential effects of the OnTI.

Determination of Significant of Effects

To determine the significance of an effect, the EIA considers the sensitivity of the receiving environment, or receptor, in relation to the level of change (or magnitude of impact) it will experience as a result of the OnTI (Table 1). Magnitude is defined by the spatial extent, duration, frequency and reversibility of the impact identified. The sensitivity of receptors (e.g. habitats, species or heritage assets) is based on their vulnerability, recoverability and value / importance. Assessment methods can differ between disciplines and are therefore set out within each technical assessment chapter of the EIA Report. The determination of the significance of effect incorporates and describes any uncertainty inherent within the assessment.



Whether an effect is significant or not significant is a key consideration in the EIA process. For the purposes of this EIA Report, effects rated as being of moderate significance or greater are generally considered to be potentially significant, although interpretations can vary between disciplines. Where effects are considered significant, this will normally trigger additional analysis, consultation and possibly further mitigation measures, where practicable. The purpose of the assessments is therefore to ensure that those determining the planning applications for the OnTI do so in full knowledge of all its likely significant effects upon the environment.



Table 1: Significance of Effect Definitions	
Significance of Effect	Definition
Negligible	No effects, or effects that are beneath levels of perception, within normal bounds of variation or the margin of forecasting error.
Minor	Positive or negative effects that are generally, but not exclusively, raised as local factors. They are unlikely to be critical in the decision-making process, but are important in enhancing the subsequent design of the OnTI.
Moderate	Positive or negative effects that have the potential to be important and may influence the decision-making process.
Major	Positive or negative effects that are considered to be very important considerations and are likely to be material in the decision-making process.

Cumulative Effects

In isolation, the OnTI's effects may be assessed as being not significant. However, when considered in the context of other developments located in the surrounding area, or occurring within a similar timeframe, the significance of these effects may increase cumulatively. The EIA Regulations also require the potential for cumulative effects to be considered and these are discussed within each technical assessment chapter of the EIA Report. These are also summarised within each of the technical sections within this NTS.

Potential Environmental Effects

Hydrology, Hydrogeology and Geology

Chapter 5 of the EIA Report considers the OnTI's potential effects on the water environment, both at and below the surface, along with ground conditions within the PAB.



Scope of the Assessment

The assessment of potential effects considers the possible changes to the hydrological, hydrogeological and geological environment, including surface and groundwater bodies (and activities and habitats dependent upon them) and ground conditions during construction, operation, maintenance and decommissioning of the OnTI. The assessment describes the baseline environment and is supported by existing desk based data to assess the predicted effects for key sensitive receptors.

In terms of key receptors, these include water resources (e.g. drinking water), waterbodies (e.g. rivers) protected under the Water Framework Directive (WFD) (EU Directives 2000/60/EC and 2006/60/EC aimed at protecting the water environment), Groundwater Dependent Terrestrial Ecosystems (GWDTes) (habitats that are dependent upon water beneath the surface) and flood risk receptors (e.g. property at risk of flooding from waterbodies).

The River Isla crosses the PAB between Stripside and Newton of Cantly to the north-east of Keith. The river is approximately 29 km in length and flows in an easterly direction from its source near Loch Park to the north-east of Dufftown before discharging into the River Deveron in Aberdeenshire. A number of smaller watercourses cross, or have their sub catchment boundaries within the PAB, including Burn of Deskford, Burn of Fordyce, Burn of Paithnick and Burn of Drum.

Summary of the Findings

During construction of the OnTI the potential effects from changes in the water quality and quantity of water resources, waterbodies protected under the Water Framework Directive, licensed discharges and flood risk receptors, are assessed as being of negligible to minor negative significance, and not significant in terms of the EIA Regulations.

Infrastructure will need to be installed within the Cullen to Stake Ness Coast Site of Special Scientific Interest (SSSI), which is designated to protect both its plant life and outcropping rock at the surface. It is proposed that detailed survey work and consultation with the appropriate bodies will identify the least sensitive locations for the infrastructure and the most appropriate installation methods. All infrastructure within the SSSI will be below ground and the land will be reinstated, resulting in an effect of minor negative significance that is not significant in terms of the EIA Regulations.



GWDTes indicate the presence of groundwater in an area that could be affected by construction work or the presence of infrastructure. A number of potential GWDTes have been identified within the PAB and the surrounding area. The OnTI's potential effects upon these have been assessed as being of minor negative significance and not significant in terms of the EIA Regulations. Again, it is proposed that detailed survey work and consultation with the appropriate bodies will identify the least sensitive locations for the infrastructure and the most appropriate installation methods.

During operation and maintenance of the OnTI the potential effects from changes in water quality and quantity of WFD waterbodies, GWDTes and water resources have been assessed as being of negligible to minor negative significance, and not significant in terms of the EIA Regulations.

During decommissioning of the OnTI, the assessment considered potential effects due to changes in water quality and quantity, concluding that they will be of a level of significance no greater than minor negative, and not significant in terms of the EIA Regulations.

No significant, negative cumulative effects are predicted.

Ecology and Nature Conservation

Chapter 6 of the EIA Report focuses on the OnTI's potential effects upon designated sites (areas protected by law for their ecological value), habitats and species, both directly (e.g. land-take and changes) and indirectly (e.g. disturbance to species).

Scope of the Assessment

The assessment describes and evaluates the current ecological interest of the PAB, drawing upon field survey data gathered, and any available desk study data. Embedded design and mitigation measures are proposed to reduce the OnTI's predicted effects, before the effects are assessed. No mitigation measures were proposed to further reduce effects following the assessment. The chapter considers the potential effects arising during construction, operation, maintenance and decommissioning of the OnTI.

The assessment was informed by extensive field surveys undertaken in 2017 and 2018 and an intertidal survey undertaken in 2017. These focussed on gathering habitats and species data from across the PAB and the surrounding area. Habitats within and adjacent to the PAB include arable land, improved and semi-improved grassland, dense and scattered scrub, trees and woodland (mainly coniferous plantation),



dunes, intertidal biotopes, heath and watercourses. At the coast, the PAB includes part of the Cullen to Stake Ness Coast SSSI. Non-statutory nature conversation designation sites include the Cullen to Whitehills Coast Local Nature Conservation Site (LNCS) and several areas of ancient woodland.

Summary of the Findings

During construction of the OnTI, effects on designated sites and habitats and species from changes in land-take / land cover change, pollution and disturbance were assessed as being of negligible to minor negative significance, and not significant in terms of the EIA Regulations.

Infrastructure will need to be installed within the Cullen to Stake Ness Coast SSSI, which is partly designated due to the habitats it supports. The residual effects of this have been assessed as being of minor negative significance and not significant in terms of the EIA Regulations. Prior to the design of any works in this location, detailed National Vegetation Classification (NVC) will be undertaken to inform the sensitive siting of infrastructure and the appropriate selection of construction techniques. Intertidal surveys may also be required to inform this process. Consultation with the appropriate bodies will be undertaken and a full method statement prepared and agreed to inform the onsite construction practices.

During operation, maintenance and decommissioning of the OnTI, effects on designated sites and habitats and species from land-take / land cover change, pollution and disturbance are predicted to be of negligible to minor negative significance and not significant in terms of the EIA Regulations.

In terms of cumulative effects, the assessment considered additive effects in-combination with two other proposed developments and concluded that there will be no significant change to shared ecological receptors.

Landscape and Visual Amenity

Chapter 7 of the EIA Report presents the Landscape and Visual Impact Assessment (LVIA) of the potential effects on the landscape and visual receptors that will arise as a result of the OnTI.

Scope of Assessment

The process taken involved identifying those receptors with the potential to be significantly affected and assessing the potential effects that the construction, operational and decommissioning phases will give rise to. The significance of these effects has been assessed through combining the sensitivity of each receptor with the magnitude of impact that will occur as a result of the OnTI.



The effects of the landfall, onshore cable route and onshore substation are all assessed during the construction phase, whilst only the effects of the onshore substation are assessed during the operational phase. This scope reflects the very limited potential for significant effects to arise in respect of the operational phase of the landfall and the onshore cable route, when operational components are buried underground. This approach was proposed in the Moray West OnTI Scoping Report (2017) and agreed to by statutory consultees in their scoping opinions. Once the Moray West Site reaches the end of its life, it is likely that the onshore substation will be retained and absorbed into the wider NETS, however if decommissioned, the potential effects will be similar to, or less than, the construction phase in terms of the scale of works and their duration.

The scope of the assessment considers cumulative effects but only in respect of the onshore substation. The landfall and the onshore cable route are unlikely to give rise to significant cumulative effects owing to a combination of their relatively small scale and the short term duration of their impacts.

The assessment of the landfall considers the Onshore Landfall Area located in the vicinity of Redhythe Point. The landfall will be located in this area and will deploy HDD drilling, or open cut trenching as an option at Redhaven Cove. The assessment of the onshore cable route considers a construction working width of minimum 30m located within an approximate 500m onshore cable corridor located within the PAB. This is expanded along the northern coast to allow for the onshore cable route coming off the Onshore Landfall Area and includes an alternative route to the east of Cotton Hill. The exact location of the route is yet to be determined. The assessment of the onshore substation considers the location adjacent to the A96, approximately 4 km south of Keith.

The study area for the OnTI covers the extent of the Onshore Landfall Area along the Aberdeenshire Coast, the PAB within which the onshore cable route will be located and a 6 km radius around the onshore substation. From this study area, those receptors with the potential to be significantly affected have been assessed in detail.

Embedded mitigation forms part of the onshore substation proposal. The onshore substation has been designed to mitigate landscape and visual effects with particular consideration of the potential effects on north-bound road-users on the A96. It comprises bands of woodland planting which would grow to form a relatively fast growing and sufficiently dense screen around the onshore substation.



Summary of Findings

The assessment of the Onshore Landfall Area found that no significant effects will arise in relation to landscape elements as a result of the construction of the landfall. In terms of landscape character, there will be significant effects on The Coast Landscape Character Type (LCT), but only within the localised landscapes. Significant effects on the landscape designation of the North Aberdeenshire Coast Special Landscape Area (SLA) will also arise within the same extents around the landfall as assessed in respect of The Coasts LCT. These effects will all be localised and short term, relating to the duration of the construction works in this area, which would be a maximum of 34 weeks. No other landscape receptors will be significantly affected by the landfall.

In respect of visual receptors, the assessment considered the impact of the Moray West OnTI on the views of residents, road-users, walkers and other recreational visitors to this area. The findings showed that different visual receptors will be affected depending on the landfall location. Significant effects will only arise in relation to walkers on the coastal core path. These effects will all be localised and short term, relating to the duration of the construction works, which would be a maximum of 34 weeks. No other visual receptors will be significantly affected by the landfall.

The assessment of the onshore cable route has shown that no significant effects will arise in respect of landscape or visual receptors. This finding relates to the fact that the construction works will be relatively small in scale, such that the extent of the influence will be limited and effects contained within localised areas.

The assessment of the onshore substation during the construction phase found that there will be no significant effects on the landscape elements of the agricultural land or the coniferous forestry, but that there will be localised significant effects on three LCTs, namely, Upland Farmland, Farmed Moorland Edge and Valleys within Upland Farmland. These effects will all relate to the presence or close range presence of the onshore substation construction and will be short term in duration.

During the operational phase, there will be no significant effects on landscape receptors and effects will gradually be reduced by the growth of the surrounding mitigation planting.

In respect of effects on representative viewpoints, the assessment found that there will be no effects on the two representative viewpoints to the north, but that the five representative viewpoints of the A96, minor roads and rural properties to the south, will be significantly affected during the construction phase which will be short term in duration.



During the operational phase, the five representative viewpoints to the south will continue to undergo significant effects, with mitigation gradually reducing these effects to not significant mostly within 15 years of operation.

Potential for cumulative effects to arise will relate to the addition of the OnTI to the existing cumulative baseline comprising the existing substations at Blackhillock. The two receptors assessed as having potential to undergo significant effects include the Uplands Farmland LCT in which the OnTI and the existing substations are located and the A96 from which road-users will experience a sequential cumulative effect. The assessment found that significant cumulative effects will arise in respect of both these receptors during the construction phase and up until year 15 of operation beyond which time the effects will be mitigated by the growth of the woodland planting around the onshore substation and along the A96 earth bund.

The LVIA and CIA have demonstrated that despite the geographical extent of the project, there will be no significant effects in relation to the onshore cable route and that significant effects relating to landfall will be localised and short term. While significant effects relating to the onshore substation will occur at the construction phase and extend into the operational phase, these effects will be mitigated by embedded mitigation planting by 15 to 20 years.

The Historic Environment

Chapter 8 of the EIA Report considers the OnTI's potential effects on cultural heritage (e.g. buildings monuments and archaeological remains), as well as landscapes that have been shaped by human activity. Assets can either be designated (protected by law) or non-designated.

Scope of Assessment

The assessment considers direct effects on heritage assets within the footprint of the OnTI during construction (i.e. potential changes to assets from physical disturbance); and indirect effects on heritage assets from surface infrastructure during operation (i.e. potential changes in views from asset towards the OnTI).

To understand direct effects on heritage assets, a study area was established comprising the PAB plus a buffer (generally 500 m) to provide further contextual information, helping to understand the archaeological potential for further, as yet unknown remains within the PAB. A desk based review collected information from national and county-based registers of known archaeological and historical



sites, in addition to available cartographic and historic documents, published sources, and previous archaeological assessments. A site visit was also undertaken.

Designated assets within the PAB comprise five listed buildings centred around Glassaugh and the Bridge of Grange. There are 130 recorded non-designated assets within the PAB, along with a further 30 features that were identified during the assessment. Numerous other designated and non-designated assets lie within the wider study area.

In order to consider indirect effects on designated assets, a 2.5 km buffer from the onshore substation site was used, along with a review of plans of the Zone of Theoretical Visibility (ZTV) to establish assets which may be impacted. One listed building (Edintore House) was identified as lying within with the 2.5 km and the ZTV.

Avoidance of designated heritage assets is part of the embedded mitigation measures for the OnTI. Avoidance of non-designated heritage assets where practical is also considered.

Summary of Findings

No significant direct effects on designated heritage assets are predicted within the footprint of the OnTI during construction. Non-designated heritage assets within the PAB will be avoided where practical, supported by archaeological evaluation methods to establish their extent and location. Where this is not possible, a programme of archaeological mitigation including recording, monitoring and, or excavation as appropriate will be undertaken in accordance with a Written Scheme of Investigation to be prepared in consultation with the Aberdeenshire Council Archaeology Service, following confirmation of detailed construction design. Such mitigation will ensure the OnTI has a minor to negligible negative effect, that is not significant in terms of the EIA Regulations.

No indirect effects are predicted on heritage assets as a result of above ground infrastructure (the onshore substation).

No significant, negative cumulative effects are predicted.

Traffic and Transport

Chapter 9 of the EIA Report considers the effects of the traffic generation and transportation requirements of the OnTI on the road network, road users and the local population.



Scope of Assessment

The guidance document of relevance to the traffic and transport environmental effects of the OnTI is the Institute of Environmental Assessment publication Guidance Notes No. 1: Guidelines for the Environmental Assessment of Road Traffic 1993 (GEART). This document has been used as the basis of the methodology and criteria for the assessment.

GEART provided the following rules to define the extent and scale of the assessment required:

- Rule 1 – Include roads where traffic flows are predicted to increase by more than 30 % (or where the number of HGVs is predicted to increase by more than 30 %); and
- Rule 2 – Include any specifically sensitive areas where traffic flows are predicted to increase by 10 % or more.

The study area extends from the A98 / A96 junction near Fochabers in the west to the B9022 in the east and from the coast in the north to the A96 just north of Cairnie in the south. The study area covers the key local road network which are likely to be affected by traffic associated with the OnTI. At each receptor within the study area a traffic count has been undertaken to establish existing traffic flows.

The effect of the construction traffic resulting from the OnTI has been established on driver delay, pedestrian amenity and severance, core paths, public transport delay and accidents and road safety.

Summary of Findings

A calculation of the likely number of Heavy Goods Vehicle (HGV) movements in and out of construction works areas each week over the anticipated 30 month construction period has been undertaken, then compared to the forecast background traffic numbers for the anticipated opening year of construction 2023, based on traffic counts undertaken in 2017.

The maximum traffic effect (expressed as a percentage) associated with the construction of the OnTI is predicted to occur in week 76 of the construction programme on the B9018 near Berryhillock. During this week 4,089 two-way vehicle movements are predicted to be generated across the road network, with 130 two-way vehicle movements expected each day (65 vehicles into the works area and 65 out) in this location. Of the 130 two-way vehicle movements 102 two-way HGV movements are expected each day (51 HGV into the works area and 51 out). This equates to an increase of approximately 24% in total traffic flows and 105% in HGV traffic flows.



Taking account of the key environmental considerations of driver delay, pedestrian amenity and severance, core paths and public transport delay and accidents and road safety, this increase in traffic during the construction phase will result in effects that are not significant in terms of the EIA Regulations. However, it is appropriate to consider some additional management in the form of a Preliminary Construction Traffic Management Plan (PCTMP) to reduce the potential for effects as far as reasonably possible. A PCTMP has been provided as part of the EIA Report and this includes information on how abnormal loads, such as large pieces of onshore substation equipment, will be delivered to site. Such deliveries will require temporary highway improvement works at the entrances to the onshore substation site and construction compounds; however no further highway improvement works are currently envisaged.

No significant, negative cumulative effects are predicted.

Noise and Vibration

Chapter 10 of the EIA Report considers the potential for the OnTI to generate noise and vibration that could affect local populations and existing infrastructure.

Scope of Assessment

The assessment of potential effects considers noise from construction of the OnTI, including such activities as excavations, the use of HDD and construction related traffic. The operational noise effects of the onshore substation have also been assessed. Except for effects from the construction of the onshore substation and HDD activities, vibration has not been considered. Noise effects from operational traffic have not been considered as traffic movements during operation of the OnTI will be minimal.

Predictions of noise from the OnTI have been compared to baseline conditions with reference to nationally established and accepted criteria. Baseline noise measurements have been taken to characterise the existing noise environment at receptors, which were identified as residences nearest to the onshore substation site and elsewhere within the PAB.

Summary of Findings

Noise levels from construction of the onshore substation are predicted to be below the threshold values within the relevant British Standard and therefore not significant. The distance to residences from any piling works will be such that vibration effects will be negligible.



Noise effects from construction of the onshore cable circuits will depend on the exact route identified. However, given the temporary nature of the works as they pass residences, it is considered that effects will not be significant in terms of the EIA Regulations.

HDD activities have a higher potential for noise effects as the works at these locations, whilst temporary, will be for longer durations than standard cable circuit installation activities. It is not considered likely that noise effects from HDD will be significant during daytime hours. However, it is likely that evening and night working will be required, which has the potential to result in significant noise effects. Assuming HDD activities will be located more than 20 m from residences, vibration effects will be at most of minor significance and not significant. Detailed assessments of HDD activities will be undertaken and mitigation identified as appropriate should there be operations outside normal working hours.

Road traffic noise changes from the introduction of construction vehicles will be of minor significance and not significant.

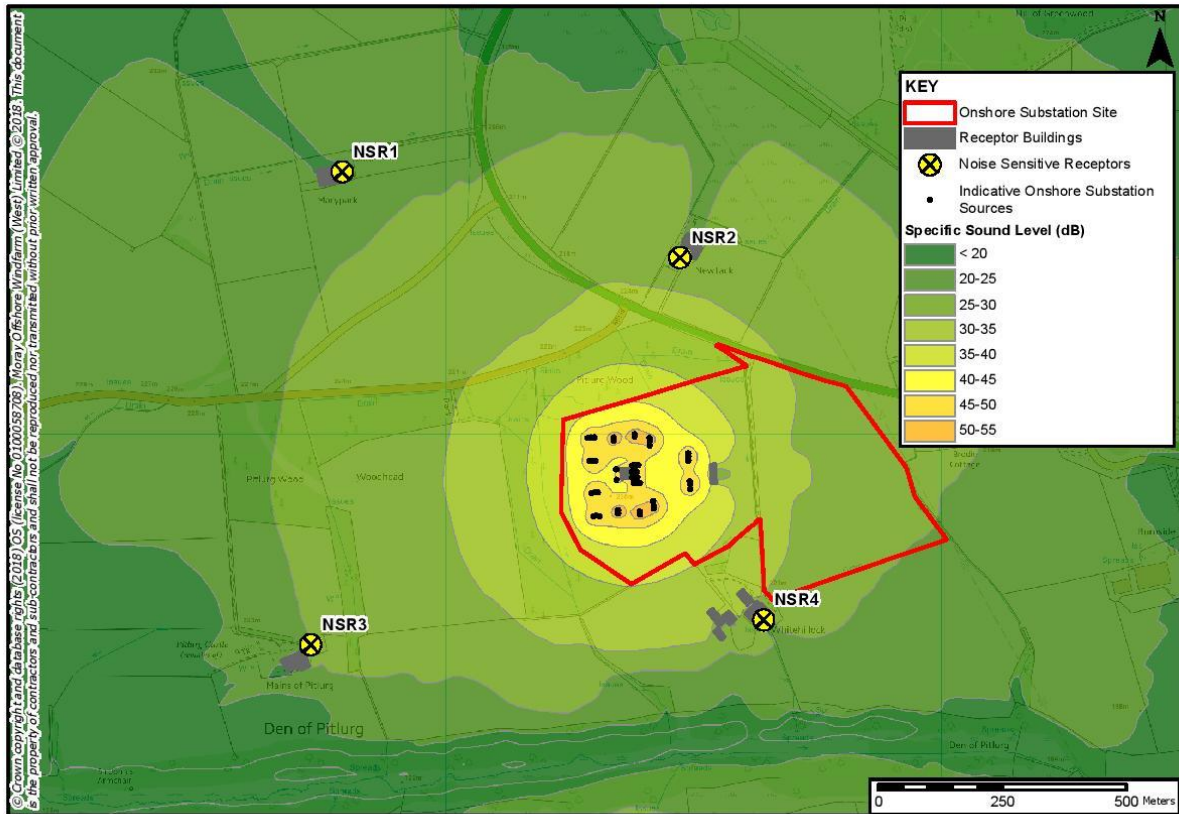
Four noise receptors (residential properties) in the vicinity of the onshore substation site were identified for the assessment. Without mitigation, noise from the operational onshore substation will exceed the measured background sound levels significantly at all four receptors. Indicative mitigation measures are therefore proposed (e.g. barriers and the enclosure of certain pieces of equipment). With these mitigation measures applied, noise from the onshore substation will be below the background sound levels at three of the identified receptors, and up to 1 dB over the background sound levels at the remaining receptor, resulting in a minor significance that is not significant in terms of the EIA Regulations. Figure 7 illustrates the predicted noise levels in the environment with mitigation.

The effects resulting from decommissioning activities on noise and vibration receptors are likely to be less than those experienced during construction as the cable circuits are likely to remain in the ground.

No significant, negative cumulative effects are predicted.



Figure 7: Predicted Noise Levels With Mitigation



Air Quality

Chapter 11 of the EIA Report considers the OnTI's potentially significant effects on air quality, and how this might affect human and ecological receptors.



Scope of Assessment

The scope of the assessment has been determined through consideration of the OnTI's potential emission sources.

Construction of the OnTI may result in particulate matter (PM₁₀) emissions, which have the potential to cause annoyance at close by receptors if not properly managed. The potential effects of dust generation and dispersion arising from activities such as excavation, movement of vehicles (on and off-site) and general construction activities have been assessed using methodology provided by the Institute of Air Quality Management (IAQM).

Construction of the OnTI will generate road traffic. Pollutants of concern associated with road traffic, such as nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}), have been assessed to determine exposure to concentration levels deemed potentially damaging to human health or ecological receptors. NO₂, PM₁₀ and PM_{2.5} concentrations have been predicted using atmospheric dispersion modelling at human receptors and compared to legislative Air Quality Objectives (AQO). Concentrations of oxides of nitrogen (NO_x) and acid and nitrogen deposition rates have been predicted at ecological receptors selected as representative of SSSIs in the vicinity of the OnTI. Concentrations of NO_x and deposition rates have been compared to NO_x critical levels and acidity and nutrient nitrogen critical loads.

The OnTI's effects on air quality once it becomes operational are expected to be minimal and so no detailed assessment has been undertaken. In the event that the OnTI is decommissioned, it is considered possible that some demolition work will be required. The potential effects of this have been assessed in the same manner as construction dust emissions.

Summary of Findings

The risk of dust impacts in terms of dust soiling, human health and at ecological receptors has been assessed. With the application of onsite dust controls (e.g. covering seed or fence stockpiles to prevent wind whipping, or speed limits for construction vehicles using temporary access tracks / within temporary works areas) during construction, the effects of the OnTI will be negligible and not significant in terms of the EIA Regulations.

Regarding air pollutants associated with construction traffic at human receptors, concentrations have been determined as well below their respective AQS. Regarding ecological receptors, predicted NO_x concentrations will be well below the NO_x critical level, while nitrogen and acid deposition will also be



well below their respective critical load thresholds. The effects of OnTI will be negligible and not significant in terms of the EIA Regulations.

With the application of onsite dust controls (e.g. water suppression to rapidly bring dust to the ground, or the use of manual / mechanical approaches rather than explosives), the effects of demolition during decommissioning will be negligible and not significant in terms of the EIA Regulations.

All effects during construction and decommissioning of the OnTI will be temporary, and often intermittent in their nature.

Socio-Economics

Chapter 12 of the EIA Report assesses the effects of Moray West OnTI on socio-economics, tourism and outdoor recreation.

Scope of Assessment

A desk-based study outlined the socio-economic, tourism and recreational characteristics in the local area, defined as the local authorities of Moray and Aberdeenshire. This included an overview of baseline employment, economic activity and wealth generation (as defined by Gross Value Added (GVA), analysis of supply chain strength and demographic indicators, as well as tourism volume and value, and recreational assets. Detailed baseline information is provided in Chapter 11: Socio-economics, tourism and recreation.

The assessment of socio-economic effects draws on an economic impact model which quantifies the additional economic activity and employment which could arise in Scotland and the local area from Moray West OnTI construction. The effects are compared to existing baseline conditions across the set of relevant indicators (namely employment and GVA).

The assessment of effects on recreation considers short-term path closures and diversions, and user enjoyment, and as a consequence, the effects on tourism volume and value.

Summary of Findings

Due to the uncertainties at this stage with regard to port selection and ability of local companies to secure contracts in the Moray West OnTI supply chain, the quantitative assessment considers two scenarios which demonstrate the range of likely socio-economic impacts. These present a low and high view by



varying the assumptions about the amounts of goods and services sourced from Scotland and the local area.

The assessment findings estimated the number of jobs supported during construction in Scotland to range between 140 and 410 annually over the two-year construction period under the low and high scenario respectively. In the local area, the jobs numbers are anticipated to be approximately 80 to 160 annually. The corresponding GVA impact is expected to range from £6 million to £25 million annually in Scotland under the low and high scenarios. In the local area, the potential GVA impact ranges from £4 million annually over the construction period in the low scenario to £9 million in the high scenario.

The employment and GVA effects during the construction of Moray West OnTI are expected to be minor positive, which is not significant in EIA terms.

In terms of recreation and tourism, the core paths between Fordyce – Sandend and Sandend – Portsoy, along with the national cycle network (NCN1) will be crossed by the onshore cable route. Both the Fordyce – Sandend core path and NCN1 are anticipated to incur a minor negative impact (not significant), while there is considered to be a moderate negative and significant effect upon the Sandend – Portsoy core path due to a higher level of displacement. With the application of mitigation through clear signage and alternative routing, the significance is reduced to not significant.

The impact on tourism is also expected to be minor to moderate positive.

No significant, negative cumulative effects are expected.

Land Use

Chapter 13 of the EIA Report sets out a description of the existing land use within the PAB and presents an assessment of the potential effects that the OnTI may have upon land use in terms of agricultural land, woodland, settlements, land used by the community, development land and watercourses.

Scope of Assessment

The assessment of potential effects upon land use takes into consideration all known existing land uses that may be affected by the OnTI, including land capability for agriculture, woodland and forestry, settlement land, community land, development land and watercourses. Effects on all of these receptors, arising from construction, operation, maintenance and decommissioning have been assessed.



A desk based study has been undertaken to identify any prime agricultural land that is present along the PAB, along with woodland, watercourses, settlements and other community features. In addition, the findings from site visits undertaken for other technical disciplines or for engineering appraisals have been used to further inform the current land use and its sensitivity. This baseline information has then been used to identify areas within the PAB where the OnTI may result in changes to the existing land use as well as identifying receptors to be removed from the PAB (e.g. Fordyce, Sandend and Areas of Search for Minerals). The study area used to inform this assessment is the area of land contained within the PAB as only direct effects required assessment (with indirect effects scoped out in consultation with MC and AC).

Summary of Findings

Through consideration of current land use and development within the PAB during the early feasibility and site selection process, it has been possible to avoid several sensitive land use features such as Mill Wood SSSI, core settlements such as Fordyce, Sandend and Keith, rural groupings such as Kirktown of Deskford and Berryhillock and Areas Safeguarded or Identified as Areas of Search for Minerals Development, along with minimising the extent of prime agricultural land present within the PAB. Through consideration of this embedded mitigation, it is considered that, with the exception of Class 3.1 land, all potential effects will be negligible to minor and not significant. There will be some significant but temporary disturbance to Class 3.1 agricultural land and with the application of additional mitigation such as sensitive cable routing and timing of construction works, these effects can be reduced to be not significant.

For the onshore substation, as this infrastructure will be in place for the lifetime of the Moray West Offshore Wind Farm and is also likely to be retained afterwards, there will be a change in land use from the existing Class 3.2 agricultural land to built up. If decommissioning of the onshore substation does take place the land use will return to agriculture.

Whole Project Assessment

Chapter 14 of the EIA Report sets out the findings of the whole project assessment which considers both the OnTI and the OfTI. This identifies that most interactions between the Development and the OnTI are likely to occur at the Onshore Landfall Area where there is already an existing overlap in jurisdictions between the MHWS and MLWS (intertidal area).



Scope of Assessment

The likely significant effects of the OfTI have been assessed in a separate Offshore EIA Report, which will be submitted to Marine Scotland as part of the consent applications for Section 36 consent under the Electricity Act 1989 (for generating stations with capacity of > 50 MW) and Marine Licences as required under the Marine and Coastal Access Act 2009 and the Marine (Scotland) Act 2010. Given that the Project extends across multiple jurisdictions and comprises multiple components, it is necessary to provide information on potential effects of the OfTI and potential inter-relationships between the marine and terrestrial components of the Project, in the Onshore EIA Report in order to ensure that Aberdeenshire and Moray Council and other statutory consultees have sufficient information available to enable them to consider the project, and associated environmental effects, as a whole, rather than the different components being considered in isolation.

Summary of Findings

In terms of the physical and biological environment there is potential for construction activities at the Onshore Landfall Area (both onshore and offshore) to affect coastal water quality and sensitive geological features (Cullen to Stake Ness Coast SSSI). However, with the implementation of appropriate mitigation, including a commitment to ensuring cable installation activities do not affect any exposed rock features, these potential effects are considered to be not significant. There are also not expected to be any significant effects on sensitive intertidal habitats or species (including any birds, otters or seals).

In terms of impacts on SLVIA, neither the onshore substation or the Moray West Offshore Wind Farm will be visible from the Onshore Landfall Area. All infrastructure at the landfall (once installed) will be buried beneath the ground and therefore will not be visible long term. Potential interactions at the Onshore Landfall Area therefore relate to temporary visual and landscape / seascape effects due to the presence of cable laying vessels / HDD rigs offshore together with construction compounds onshore. However, given these effects will be temporary and short term they are not considered to be significant.

Impacts on cultural heritage assets in the intertidal area will be limited based on the inclusion of mitigation to minimise any potential impacts in both the Onshore and Offshore EIA Reports. Impacts on the setting of onshore cultural heritage sites will also be limited, given the limited potential for inter-related landscape and visual effects.

In terms of socio-economics, the Project as a whole, has the potential to provide a number of benefits to both Moray and Aberdeenshire, as well as the wider local study area, in terms of temporary and long term



employment opportunities and wealth generation (GVA). In particular, given that the employment opportunities associated with the OnTI are completely different to those associated with the Moray Offshore Wind Farm and OfTI, these can be considered in addition to each other, rather than a duplication.

Potential effects on surfers and the quality of the surf have been assessed in the Offshore EIA Report and considered in Chapter 12: Socioeconomics, Tourism and Recreation of this EIA Report. These are considered to be not significant both during construction and operation. In terms of effects on local recreation and amenity, there will be some short term, temporary disturbance in the Onshore Landfall Area while the cables are brought to shore. However, in order to minimise disruption, where possible Moray West will aim to coordinate onshore and offshore activities, such that operations in the Onshore Landfall Area are completed as one combined activity rather a series of separate activities.

Review and Comments on the EIA Report

The EIA Report comprises:

- Volume 1: Non-Technical Summary (this document);
- Volume 2: EIA Report Main Text;
- Volume 3: EIA Report Visualisations and Figures; and
- Volume 4: EIA Report Technical Appendices.

Stakeholder engagement will continue following submission of the planning applications and there will be an opportunity to make formal representations to both AC and MC. The EIA Report and supporting documents are available for inspection, free of charge, via the Moray West Offshore Wind Farm website (<http://www.morayoffshore.com/moray-west/the-project/>). Hard copies of the EIA Report will also be made available for public viewing at the following locations:

- AC, Banff and Buchan Area Office, Town House, 34 Low Street, Banff, AB45 1AY Development Management, The Moray Council, High Street, Elgin, IV30 1BX; and
- MC, Elgin Council Offices, High Street, Elgin, IV30 1BX.





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