Table of Contents

EIA Report - Volume 3a Figures

Chapter 1: Introduction
  Figure 1.5.1: Site Location

Chapter 2: Policy and Legislative Context
  No figures

Chapter 3: Site Selection and Alternatives
  Figure 3.4.1: Round 3 Wind Farms in the Moray Firth Zone
  Figure 3.6.1: Grid Connection Options
  Figure 3.6.2: Landfall Options

Chapter 4: Description of Development
  Figure 4.3.1: Development Boundary
  Figure 4.4.1: Indicative Turbine Layout

Chapter 5: EIA Methodology
  No figures

Chapter 6: Physical Processes
  Figure 6.4.1: Study Area
  Figure 6.4.2: Data and Deployment Locations in the Moray Firth
  Figure 6.4.3: Seabed Sediments within the Study Area
  Figure 6.4.4: Designated Sites and Identified Receptors in the Moray Firth
  Figure 6.7.1: Typical Sediment Plume Resulting from Dredging Overspill (Tenth Foundation in Sequence)
  Figure 6.7.2: Spring Tidal Excursion Ellipses and Buffer
  Figure 6.7.3: Effect of the Development on Tidal Currents
  Figure 6.7.4: Effect of the Development on Wave Height (1:1 year)
  Figure 6.7.5: Effect of the Development on Wave Height (1:10 year)
  Figure 6.7.6: Effect of the Development on Wave Height (1:50 year)
  Figure 6.8.1: The Offshore Export Cable Landfall Area
  Figure 6.9.1: Cumulative Effect of All Sites on Tidal Currents
  Figure 9.6.2: Cumulative Effect of All Sites on Wave Height (1:1 year)
  Figure 9.6.3: Cumulative Effect of All Sites on Wave Height (1:10 year)
  Figure 9.6.4: Cumulative Effect of All Sites on Wave Height (1:50 year)
Chapter 7: Benthic and Intertidal Ecology

Figure 7.3.1: Benthic Ecology Baseline Characterisation Survey Area & Stations
Figure 7.3.2: Intertidal Ecology Baseline Characterisation Survey Area & Transects
Figure 7.4.1: Seabed Sediments (derived from survey) within the Moray West Site
Figure 7.4.2: Seabed Sediments (derived from survey) within the Offshore Export Cable Corridor
Figure 7.4.3: Moray West Site -Biotopes (derived from survey)
Figure 7.4.4: Offshore Export Cable Corridor - Biotopes (derived from survey)
Figure 7.4.5: Landfall - Biotopes (derived from survey)

Chapter 8: Fish and Shellfish Ecology

Figure 8.4.1: Moray West Fish & Shellfish Study Area
Figure 8.4.2: Sandeel and Nephrops Spawning and Nursery Grounds
Figure 8.4.3: Herring & Lemon Sole Spawning and Nursery Grounds
Figure 8.4.4: Cod & Sprat Spawning and Nursery Grounds
Figure 8.4.5: Plaice & Haddock Spawning and Nursery Grounds
Figure 8.4.6: Whiting Spawning and Nursery Grounds
Figure 8.4.7: Spurdog, Tope, Thornback & Spotted Ray Nursery Grounds
Figure 8.4.8: Blue Whiting, Ling, Hake, Anglerfish, Mackerel & Saithe Nursery Grounds
Figure 8.4.9: Herring Spawning Areas from Coull et al. (1998) and 2007/2008 - 2016/2017 IHLS Abundance Heatmap

Chapter 9: Marine Mammal Ecology

Figure 9.4.1: Seal Designated Haul-outs, SAC and MU
Figure 9.4.2: ECOMMAS Porpoise Positive Days 2016
Figure 9.4.3: Cetacean Sightings During HiDef Surveys
Figure 9.4.4: Harbour Porpoise Predicted Density (#/cell)
Figure 9.4.5: ECOMMAS Dolphin Positive Days 2016
Figure 9.4.6: Bottlenose Dolphin Density (#/cell)
Figure 9.4.7: Minke Whale Density (#/km²)
Figure 9.4.8: Harbour Seal August Haul-out Counts
Figure 9.4.9: Harbour Seal Telemetry Tracks (n=37)
Figure 9.4.10: Harbour Seal Density Surface (#/cell)
Figure 9.4.11: Grey Seal August Haul-out Counts
Figure 9.4.12: Grey Seal Telemetry Tracks
Figure 9.4.13: Grey Seal Density Surface (#/cell)
Figure 9.7.1: Noise Modelling Locations
Figure 9.7.2: Minke Whale PTS Impact Range Concurrent Pin Pile 3,000 kJ
Figure 9.7.3: Porpoise Density Noise Level Contours Monopile 5,000 kJ
Figure 9.7.4: Porpoise Density Noise Level Contours Pin Pile 3,000 kJ
Figure 9.7.5: Dolphin Density Noise Level Contours Monopile 5,000 kJ
Figure 9.7.6: Dolphin Density Noise Level Contours Monopile 3,500 kJ
Figure 9.7.7: Dolphin Density Noise Level Contours Monopile 1,000 kJ
Figure 9.7.8: Dolphin Density Noise Level Contours Pin Pile 3,000 kJ
Figure 9.7.9: Minke Whale Noise Level Contours Monopile 5,000 kJ
Figure 9.7.10: Minke Whale Noise Level Contours Pin Pile 3,000 kJ
Figure 9.7.11: Harbour Seal Noise Level Contours Monopile 5,000 kJ
Figure 9.7.12: Harbour Seal Noise Level Contours Pin Pile 3,000 kJ
Figure 9.7.13: Grey Seal Density Noise Level Contours Monopile 5,000 kJ
Figure 9.7.14: Grey Seal Density Noise Level Contours Pin Pile 3,000 kJ
Figure 9.7.15: Porpoise Density Noise Level Contours Concurrent Monopile 5,000 kJ
Figure 9.7.16: Dolphin Density Noise Level Contours Concurrent Monopile 5,000 kJ
Figure 9.7.17: Minke Whale Noise Level Contours Concurrent Monopile 5,000 kJ
Figure 9.7.18: Harbour Seal Noise Level Contours Concurrent Monopile 5,000 kJ
Figure 9.7.19: Grey Seal Density Noise Level Contours Concurrent Monopile 5,000 kJ
Figure 9.8.1: Projects Included Quantitatively in the Cumulative Impact Assessment

Chapter 10: Ornithology

Figure 10.5.1: Moray West Arial Surveys

Chapter 11: Commercial Fisheries

Figure 11.4.1: Commercial Fisheries Study Area
Figure 11.4.2: Surveillance Sightings by Nationality (2012-2016)
Figure 11.4.3: Surveillance Sightings by Method (2012-2016)
Figure 11.4.4: UK Average Landings by Method (2012-2016)
Figure 11.4.5: Average Landings Values (2012-2016) by Species
Figure 11.4.6: Creeling Fishing Grounds Identified through Consultation with Local Fisherman 2017
Figure 11.4.7: Mackerel Grounds Identified through Consultation with Local Fishermen 2017
Figure 11.4.8: Average VMS Value by Demersal Mobile Nets UK (2012-2016)
Moray Offshore Windfarm (West) Limited
Volume 3a: Figures

Figure 11.4.9: Average VMS Effort by Demersal Mobile Nets for UK (2012-2016)
Figure 11.4.10: Nephrops Grounds Identified by Local Fishermen Following Consultation 2017
Figure 11.4.11: Squid Grounds Identified through Consultation with Local Fishermen 2017
Figure 11.4.12: Average VMS Value by Dredging (2012-2016)
Figure 11.4.13: Average VMS Effort by Dredging (2012-2016)
Figure 11.4.14: AIS Tracks for Scallop Dredges May - November 2017
Figure 11.4.15: VMS Value by Dredge (2012-2016) UK Wide
Figure 11.4.16: VMS Effort by Dredging (2012-2016) UK Wide
Figure 11.4.17: Scallop Fishing Grounds Identified Through Local Fishermen Consultation 2017
Figure 11.4.18: AIS tracks of Known Scallop Dredgers that Target the Moray Firth
Figure 11.8.1: Average VMS Value by Demersal Mobile Nets around Scotland (2012-2016)
Figure 11.8.2: Average VMS Effort by Demersal Mobile Nets around Scotland (2012-2016)
Figure 11.8.3: Average VMS Value by Dredge for UK (2012-2016)
Figure 11.8.4: Average VMS Effort by Dredging around UK (2012-2016)
Figure 11.8.5: Creeling Grounds Identified through Consultation with Local Fishermen 2017
Figure 11.8.6: Mackerel Grounds Identified by Local Fishermen Following Consultation 2017
Figure 11.8.7: Nephrops Grounds Identified by Local Fishermen Following Consultation 2017
Figure 11.8.8: Squid Grounds Identified by Local Fishermen Following Consultation 2017
Figure 11.8.9: Scallop Grounds Identified by Local Fishermen Following Consultation 2017
Figure 11.8.10: Average VMS Value by Dredge for UK (2012-2016)

Chapter 12: Shipping and Navigation

Figure 12.4.1: Navigational Features Overview
Figure 12.4.2: AIS, Visual and Radar Data within Moray West Offshore Wind Farm Study Area (25 Days Summer 2017)
Figure 12.4.3: AIS Data within Moray West Offshore Wind Farm Study Area (28 Days Winter 2016)
Figure 12.4.4: AIS Density Moray West Offshore Wind Farm Study Area (25 Days Summer 2017)
Figure 12.4.5: AIS Density within Moray West Offshore Wind Farm Study Area (28 Days Winter 2016)
Figure 12.4.6: 90th Percentile of Identified Main Routes within Vicinity of Moray West Offshore Wind Farm Study Area (53 Days Summer 2017 and Winter 2016)
Figure 12.4.7: AIS, Visual and Radar Fishing Vessels within the Moray West Offshore Wind Farm Study Area and the OFTI Study Area (53 Days Summer 2017 and Winter 2016)
Moray Offshore Windfarm (West) Limited
Volume 3a: Figures

Figure 12.4.8: RYA Cruising Routes and AIS, Visual and Radar Recreational Vessels within the Moray West Offshore Wind Farm Study Area and OffTI Study Area (25 Days Summer 2017)

Chapter 13: Military and Civil Aviation

Figure 13.4.1: Study Area

Chapter 14: Seascape, Landscape and Visual Impact Assessment

Figure 14.4.1: SLVIA Study Area
Figure 14.4.2: Visual Receptor Concentrations
Figure 14.4.3: Representative Viewpoint Location Plan
Figure 14.4.4 Landscape Character Types
Figure 14.4.5: National Coastal Character Types
Figure 14.4.6a: Regional Coastal Character Areas (context)
Figure 14.4.6b-h: Regional Coastal Character Areas (detail)
Figure 14.4.7: Landscape Planning Designations
Figure 14.4.8: Wild Land Areas
Figure 14.6.1: Rochdale Envelope- SLVIA Layouts
Figure 14.6.2: Rochdale Envelope- SLVIA Layouts (Night Layout)
Figure 14.6.3: Rochdale Envelope- SLVIA Assessment Layout
Figure 14.6.4: Rochdale Envelope- SLVIA Alternate Night Assessment Layout
Figure 14.7.1a: Blade Tip ZTV with Viewpoints (Overview)
Figure 14.7.1b: Blade Tip ZTV with Viewpoints (Detail)
Figure 14.7.1c: Comparative ZTV -Model 4f and Model 2 Layouts
Figure 14.7.1d: Comparative ZTV -Model 4f and Model 3 Layouts
Figure 14.7.2a: Hub Height ZTV
Figure 14.7.2b Hub Height ZTV Comparison - Layout 4f / Layout 2
Figure 14.7.3 Horizontal Angle ZTV
Figure 14.7.4 Landscape Character Types With ZTV
Figure 14.7.5a Regional Coastal Character Areas (context) with ZTV
Figure 14.7.5b-h Regional Coastal Character Areas (detail) with ZTV
Figure 14.7.6 Landscape Designations & Wild Land Areas With ZTV
Figure 14.7.7a Visual Receptor Concentrations with ZTV (Context)
Figure 14.7.7b: Visual Receptor Concentrations with ZTVA9: Suredale to Latheron
Figure 14.7.7c Visual Receptor Concentrations with ZTVA9: Brora to Latheron
Figure 14.7.7d Visual Receptor Concentrations with ZTVA99: Latheron to Wick
Figure 14.7.7e Visual Receptor Concentrations with ZTVA99: Wick to John o’ Groats
Figure 14.7.7f Visual Receptor Concentrations with ZTV Lossiemouth to Logie Head
Figure 14.8.1: Cumulative Wind Farm Locations
Figure 14.8.2: Cumulative ZTV with Operational / Under Construction Wind Farms
Figure 14.8.3: Cumulative ZTV with Operational / Under Construction & Consented Wind Farms
Figure 14.8.4: Cumulative ZTV with Operational / Under Construction / Consented & Application Wind Farms
Figure 14.8.5: Cumulative ZTV with Beatrice Demonstrator Turbines
Figure 14.8.6: Cumulative ZTV with BOWL
Figure 14.8.7: Cumulative ZTV with Moray East
Figure 14.8.8: Cumulative ZTV with Burn of Whilk
Figure 14.8.9: Cumulative ZTV with Buolfruich
Figure 14.8.10: Cumulative ZTV with Achairn, Flex Hill, Wathegar 1&2
Figure 14.8.11: Cumulative ZTV with Camster
Figure 14.8.12: Cumulative ZTV with Causeymire, Achachan 1&2, Bad a Cheo, Halsary
Figure 14.8.13: Cumulative ZTV with Gordonbush and Extension
Figure 14.8.14: Cumulative ZTV with Stroupster
Figure 14.8.15: Cumulative ZTV with Kilbraur
Figure 14.8.16: Cumulative ZTV with Rumster
Figure 14.8.17: Cumulative ZTV with Cogle Moss
Figure 14.8.18: Cumulative ZTV with Lochend Farm
Figure 14.8.19: Cumulative ZTV with Navidale
Figure 14.8.20: Cumulative ZTV with Golticlay
Figure 14.8.21: Cumulative ZTV with West Garty
Figure 14.8.22: Cumulative ZTV with Boyndie and Extension
Figure 14.8.23: Cumulative ZTV with Aultmore
Figure 14.8.24: Cumulative ZTV with Lurg Hill, Netherton of Windyhill

Chapter 15: Socioeconomics, Tourism and Recreation
No figures.

Chapter 16: Archaeology and Cultural Heritage

Figure 16.4.1: Location Map

Figure 16.4.2: Seabed Features of Archaeological Potential within Moray West Site
Figure 16.4.3: Seabed Features of Archaeological Potential within the Export Cable Route

Figure 16.4.4: Onshore Receptors within the ZTV Identified for Setting Impacts

Figure 16.7.1: Dunbeath Inver Forth (SM5073) and Latheronwheel Promontory Fort (SM5182): Cumulative Wirelines

Figure 16.7.2: The Tulloch (Usshilly), Broch and Field System (SM599) and Dunbeath Castle (LB7936): Cumulative Wirelines

Figure 16.7.3: Dunrobin Castle (LB7044) and Covesea Skerries Lighthouse, Keeper’s Cottage and Steading (LB3705): Cumulative Wirelines

Chapter 17: Other Human Activities

Figure 17.4.1: Other Human Study Area

Figure 17.4.2: Other Offshore Wind Farm Developments

Figure 17.4.3: Oil and Gas Infrastructure and Licenced Blocks

Figure 17.4.4: Open Marine Disposal Sites

Figure 17.4.5: Subsea Cables and Pipelines

Chapter 18: Whole Project Assessment

Figure 18.2.1: OnTI Location: Planning Application Boundary and Substation Site