# Bowdun Offshore Wind Farm, Onshore EIA Report

## Volume 1, Chapter 17: Summary of Significant Effects and Conclusion

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# 17 Summary of Significant Effects and Conclusion

## 17.1 Introduction

17.1.1 This chapter of the Onshore Environmental Impact Assessment (EIA) Report provides a summary of the significant effects associated with the onshore infrastructure of the Bowdun Offshore Wind Farm ('the Project'). The onshore infrastructure of the Project, is the works landward of Mean Low Water Springs (MLWS), including the intertidal area, and are referred to as 'the 'Proposed Development'. This Onshore EIA Report accompanies the application to Aberdeenshire Council for Planning Permission in Principle (PPP) for the Proposed Development.

## 17.2 Significant Effects

17.2.1 A summary of the significance of residual effects identified in this Onshore EIA Report is provided in Table 17.1, highlighting those which are considered significant in the context of the EIA Regulations. Similarly a summary of cumulative effects identified in the Onshore EIA Report is provided in Table 17.2.

17.2.2 No significant inter-related effects were identified in the EIA Report, as detailed in the individual topic specific chapters Volume 1, Chapter 6-16.

**Table 17.1: Summary of Significance of Residual Effects**

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| 6 | **Land use, Agriculture and Public Access** | Private Property and Housing | Land use, severance and access for Drumlithie. | Minor significance (temporary), which is **not significant.** |
| | | | Land use, severance and access at ATC14 (C20K, south of A90) and at ATC16 (C14K, west of Three Wells). | Minor (temporary) for private property and housing in the vicinity of ACT14 (C20K, south of A90), Minor (temporary) for private and housing in the vicinity of ATC16 (C14K, west of Three Wells), and Negligible (temporary) for all other private property and housing. **None of which are significant.** |
| | | Community Land and Assets | Potential impacts on both Community Land and Community Assets relate to the temporary material restriction/change of access due to temporary road closures and traffic management systems. | Minor significance (temporary), which is **not significant.** |
| | | Agricultural Land Holdings | Due to temporary restrictions during construction on agricultural land. | 45 Agricultural Land Holdings are assessed to have temporary effects, 22 of these are not significant (minor and negligible significance) and **23 are assessed to be significant (temporary) effects** one with Major and 22 with Moderate significance). |
| | | | Permanent effects (land-take). | Two holdings are subject to permanent effects from land-take which **are not significant.** |
| | | Public Access | Temporary closures, diversions and reduced amenity of Walking, Cycling and Horse-Riding (WCH) routes. | Given the temporary nature of any diversions/disruptions to the WCH route network effects area assessed as **not significant.** |
| | | | Permanent impact e.g. diversions, closures. | No permanent effects to the WCH routes as all routes will be reinstated post-construction. |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | Access to Outdoor Areas | Temporary closures, diversions, reduced amenity of Outdoor Areas. | Benholm Bay; Milennium Garden and Fetteresso Forest outdoor areas have potential to experience temporary severance and disruption resulting in **Major (temporary) significant effects** during construction. |
| | | | Permanent impact e.g. diversions, closures. | No permanent effects to access to outdoor areas as all access will be reinstated post construction. |
| | | Public Transport | Disruption during the construction due to temporary traffic management measures, the increase in construction traffic on the surrounding roads and the removal of access routes to public transport infrastructure. | Negligible to minor (temporary) significance of effect are assessed for Public Transport which is **not significant.** |
| **7** | **Biodiversity and Terrestrial Ecology and Ornithology** | Ecology & Ornithology Features (Designated sites; Protected Species; Habitats; Important Ornithological Features (IOFs)) | Temporary or permanent loss of or modification to habitats used by onshore ecology and ornithology features. | **No significant effects.** |
| | | | Disturbance to onshore ecology and ornithology features through increased noise, light, and dust. | **No significant effects.** |
| | | | Indirect impacts due to accidental pollution and/or contamination of habitats used by onshore ecology and ornithology features. | **No significant effects.** |
| | | | Direct mortality of onshore ecology and ornithology features from moving vehicles and operational plant. | **No significant effects.** |
| **8** | **Landscape and Visual** | Landscape Receptors | Landscape and visual effects during construction on Landscape Character | **Moderate (Significant)** during construction. |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | | Type 24 (Coastal Farmland Ridges and Hills – Aberdeenshire) is considered to be Moderate (Significant). | |
| | | Visual Receptors (Settlements) | Landscape and visual effects during construction on settlement of Tannachie are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Routes) | Landscape and visual effects during construction on Auchenblae Road are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Haughs of Benholm are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Nether Knox, Benholm are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Nether, Benholm are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Tillygrain Benholm are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Upper Knox, Benholm are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Three Wells, Inverbervie are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Peattie, Arbuthnott are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Peattie, Arbuthnott are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Kirkton, Arbuthnott are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Kirkton House, Arbuthnott are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Pitcharles Farm and Cottages, Arbuthnott are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Little Waids, Arbuthnott are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Broombank Cottage, Drumlithie are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Westfield House, Drumlithie are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Hillrise, Drumlithie are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Blererno, Buckie's Mill are considered to be Moderate (Significant) | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Annamuick are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Elfhill are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Individual Properties and Clusters) | Landscape and visual effects during construction on Westerton of Bogheadly, Rickarton are considered to be Moderate (Significant). During the winter year of opening Moderate (Significant) effects are anticipated. | **Moderate (Significant)** during construction and winter of the year of opening. |
| | | Visual Receptors (Routes) | Landscape and visual effects during construction on Johnshaven to Gourdon coastal path/National Cycle Network 1 are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | Visual Receptors (Routes) | Landscape and visual effects during construction on Mid Kinmonth Circular are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Routes) | Landscape and visual effects during construction on Fetteresso Forest Local Paths are considered to be Moderate (Significant).<br>During the winter year of opening Moderate (Significant) effects are anticipated. | **Moderate (Significant)** for both construction and winter year of opening. |
| | | Visual Receptors (Viewpoints) | Landscape and visual effects during construction on Viewpoint 1 (A92 near Nether Knox Cottage/NCN1/Southeast Aberdeenshire Coast SLA) are considered to be Major (Significant). | **Major (Significant)** during construction. |
| | | Visual Receptors (Viewpoints) | Landscape and visual effects during construction on Viewpoint 2 (Drumlithie/Mid Kinmonth Circular Core) are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Viewpoints) | Landscape and visual effects during construction on Viewpoint 3 (Carron Water valley near Buckie's Mill) are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Viewpoints) | Landscape and visual effects during construction on Viewpoint 4 (Auchenblae Road near Annamuick) are considered to be Moderate (Significant). | **Moderate (Significant)** during construction. |
| | | Visual Receptors (Viewpoints) | Landscape and visual effects during construction on Viewpoint 6 (Hill of | **Major (Significant)** during construction. |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | | Swanley, Fetteresso Forest) are considered to be Major (Significant). Major (Significant) effects are anticipated during first year and Moderate (Significant) effects by Year 12. | **Major (Significant)** during first year of operation and **Moderate (Significant)** by summer 12 years after opening. |
| | | Visual Receptors (Viewpoints) | Landscape and visual effects during construction on Viewpoint 8 (A957 (Slug Road) at Rickarton near Bogheadly) are considered to be Moderate (Significant).<br>Moderate (Significant) effects are anticipated during winter year of opening. | **Moderate (Significant)** during construction and during winter year of opening. |
| **9** | **Cultural Heritage** | Designated Heritage Assets | Removal of designated heritage assets, visual intrusion on setting of heritage assets and noise and visual intrusion on the setting of heritage assets. | **No significant effects**. |
| | | Archaeological remains (non-designated assets) | Removal of known heritage assets and previously unknown archaeological remains; visual intrusion on setting of heritage assets; noise and visual intrusion on the setting of heritage assets. | Considering Additional Mitigation, **no significant effects** for archaeological remains, historic buildings and the historic landscape are anticipated. |
| | | Historic Buildings | | |
| | | Historic Landscape | | |
| **10** | **Geology and Ground Conditions** | Soils | Potential downgrading of the LCA in the Substation Search Area during construction. | Minor adverse significance, which is **not significant**. |
| | | | The temporary degradation of agricultural soils along the Onshore Export Cable. Corridor during construction. | Negligible to minor adverse significance which is **not significant.** |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | | Impact on peat as a result of soils sealing during construction. | Negligible or minor significance, which is **not significant.** |
| | | | Potential peaty soil degradation. | Minor significance, which is **not significant.** |
| | | Land Contamination | Potential impact on human health and groundwater. | Minor adverse significance, which is **not significant.** |
| | | | Potential impact on surface waters. | Negligible to minor adverse significance, which is **not significant.** |
| | | Groundwater | Potential impact on Aquifers. | Minor adverse significance which is **not significant.** |
| | | | Potential dewatering of Private Water Supplies (PWS). | **Minor to Moderate (Significant)** effects during construction. |
| | | | Potential for dewatering impacts affecting Groundwater Dependent Terrestrial Ecosystems (GWDTEs) during construction for five potential GWDTEs. | **Minor to Moderate (Significant)** effects during construction. |
| | | Soils; Land Contamination and Groundwater | Potential effects during O&M and Decommissioning. | **No significant effects** have been identified during these phased of the Proposed Development**.** |
| **11** | **Water Quality and Flood Risk** | Surface Water | Temporary changes to surface water flow paths, increased sediment loading and potential for pollution to enter watercourses. | Minor adverse significance, which **is not significant** considering Embedded Mitigation**.** |
| | | Surface Water Supply | Construction activities near PWSs including trench excavation, HDD operations, dewatering, Substation construction and watercourse crossings could potentially impact water quality or quantity. Construction activities for the Substation could potentially impact | Minor adverse significance, which **is not significant** considering Embedded Mitigation**.** |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | | nearby abstractions and discharges. These activities may alter groundwater levels, flow paths or introduce contaminants. | |
| | | Groundwater Quality | The potential for contamination of groundwater during construction is limited due to the implementation of pollution prevention measures. | Minor adverse significance, which **is not significant** considering Embedded Mitigation**.** |
| | | Flood Risk | Construction activities, such as the removal of soil may increase runoff and increase downstream fluvial and surface water flood risk. A CEMP will be in place during the construction and include a detailed drainage strategy to control increases in surface runoff. A Flood Evacuation and Response Plan will be in place for any construction activities taking place within the functional floodplain. | Minor adverse significance, which **is not significant** considering Embedded Mitigation**.** |
| **12** | **Air Quality** | Construction dust | Construction dust has the potential to cause short term, localised impacts through deposition of dust at the nearest sensitive receptors. | **No significant effects.** |
| | | Construction traffic | Effect of vehicles during construction on local air quality. | **No significant effects.** |
| | | Potential effects resulting during decommissioning | Dust and road traffic effects associated with decommissioning. | **No significant effects.** |
| **13** | **Noise and Vibration** | Construction | Construction noise and vibration impact for cable and Substation works. | Minor significance, which is **not significant** considering Embedded and Additional Mitigation. |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | | Construction traffic noise | Considering Embedded and Additional Mitigation **no significant effects**. |
| | | Operational noise | Operational noise (Substation) | Minor significance, which is **not significant** considering Embedded and Additional mitigation. |
| **14** | **Traffic and Transport** | Impacts of construction traffic | Severance | Negligible to Minor significance which is **not significant.** |
| | | | Driver Delay | Negligible to Minor significance which is **not significant.** |
| | | | Non-Motorised Users (NMU) Delay | Negligible to Minor significance which is **not significant.** |
| | | | NMU Amenity | Negligible to Moderate significance, however with Embedded and Additional Mitigation, Moderate impacts are mitigated to Minor and are **not significant**. |
| | | | Fear and Intimidation | Negligible to Minor significance which is **not significant.** |
| | | | Road Safety | Negligible significance which is **not significant.** |
| | | | Abnormal Loads (AL) | **No significant effects** due to low number of AL vehicles and the short duration present on local road network. |
| | | | Public Transport | Negligible which is **not significant.** |
| | | | Active Travel | Minor significance which is **not significant.** |
| **15** | **Climate Change** | GHG Emissions | GHG Emissions resulting from the Proposed Development construction. | Minor Adverse which is **not significant** considering Embedded and Additional Mitigation. |
| | | Climate Change Risk Assessment | Projected increases in average and extreme temperatures, changes in | Negligible to Minor Adverse effects which are **not significant.** |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | | rainfall patterns, including increased rainfall in winter months, flooding and increased frequency of flood events and extreme weather events including storms | |
| **16** | **Socio-Economics, Tourism and Recreation** | GVA and employment in the North East region | The effects on GVA and employment during all three project phases for the combine onshore and offshore elements of the Project. | Moderate (Beneficial) which are **Significant.** |
| | | Other socio-economic, tourism and recreation effects | Changes in demographics, demand for housing and other services, tourism and recreation receptors and amenity of local public and private receptors arising from other environmental effects. | **No significant effects.** |
| | | Socio-cultural character of the local area | Impacts on the socio-cultural character of the local area and a resulting effect on community wellbeing. | Minor Adverse **(not significant)** during construction and Minor Beneficial **(not significant)** during operation and maintenance. |

**Table 17.2: Summary of Cumulative Significant Effects**

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| 6 | **Land Use, Agriculture and Public Access** | Five land interests have been identified as being affected by the Proposed Development and other identified projects (Fetteresso Forest; Nether Pitforthie Farm; Waters of Glenbervie; Upper Quithel Farm and East Kinmouth Farm). However, **no significant (permanent) cumulative effects** are expected, as at this stage there is no definitive temporal, conceptual or physical project overlap with any other projects. | | |
| 7 | **Biodiversity and Terrestrial Ecology and Ornithology** | **No significant cumulative effects** identified following the implementation of Embedded Mitigation. | | |
| 8 | **Landscape and Visual** | Landscape Receptors | **Moderate (Significant)** cumulative effects with Hurlie Substation on landscape character within LCT 24 are predicted during the winter of the year of opening. | **Moderate (Significant)** during winter year of opening. |
| | | Landscape Receptors | **Moderate (Significant)** cumulative effects with Hurlie Substation on landscape character within LCT 29 are predicted during both the winter of the year and summer 12 years after opening. | **Moderate (Significant)** during winter year of opening and summer 12 years after opening. |
| | | Visual Receptors | **Moderate (Significant)** cumulative visual effects with Hurlie Substation are predicted during both the winter of the year of opening and the summer 12 years after opening for people travelling along sections of path within Fetteresso Forest around Upper Baulk, Hill of Trusta and Hill of Swanley. | **Moderate (Significant)** during winter year of opening and summer 12 years after opening. |
| | | Visual Receptors | **Major (Significant)** cumulative visual effects with Hurlie Substation are predicted during the winter of the year of opening at Viewpoint 6: Hill of Swanley, | **Major (Significant)** during winter year of opening and **Moderate (Significant)** by summer 12 years after opening. |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | | Fetteresso Forest, reducing to **Moderate (Significant)** by the summer 12 years after opening. | |
| | | Visual Receptors | **Moderate (Significant)** cumulative visual effects with SSEN-T Tealing to Kintore 400 kV are predicted during the winter of the year of opening and summer 12 years after opening for people travelling along sections of path which lie within 1 km of the Proposed Development in Fetteresso Forest, including paths located on the more elevated western slopes of the Hill of Swanley. | **Moderate (Significant)** during winter year of opening and summer 12 years after opening. |
| | | Visual Receptors | **Major (Significant)** cumulative visual effects with SSEN-T Tealing to Kintore 400 kV are predicted during the winter of the year opening and reducing to **Moderate (Significant)** by the summer 12 years after opening at Viewpoint 6: Hill of Swanley, Fetteresso Forest. | **Major (Significant)** during winter year of opening and **Moderate (Significant)** by summer 12 years after opening. |
| | | Visual Receptors | **Moderate (Significant)** cumulative visual effects with SSEN Tealing to Kintore 400 kV are predicted during the winter of the year opening for Viewpoint 8: A957 (Slug Road) at Rickarton near Bogheadly reducing to Minor (not significant) by the summer 12 years after opening. | **Moderate (Significant)** during winter year of opening. |
| | | Landscape Receptors | **Moderate (Significant)** cumulative visual effects with Glenskinnan Renewable Energy Park are predicted during the winter year of opening for LCT24: Coastal | **Moderate (Significant)** during winter year of opening. |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | | Farmed Ridges and Hills – Aberdeenshire (between Carnmont Hill and Hillhead of Auquhirie) reducing to Minor (not significant) by the summer 12 years after opening. | |
| | | Landscape Receptors | **Moderate (Significant)** cumulative visual effects with Glenskinnan Renewable Energy Park are predicted during the winter year of opening and by summer 12 years after opening for LCT29: Summits and Plateaux – Aberdeenshire (central and eastern parts). | **Moderate (Significant)** during winter year of opening and by the summer 12 years after opening. |
| | | Visual Receptors | **Moderate (Significant)** cumulative visual effects with Glenskinnan Renewable Energy Park are predicted during the winter year of opening and by summer 12 years after opening for Fetteresso Forest Local Paths (at Hill of Trusta and Hill of Swanley) | **Moderate (Significant)** during winter year of opening and by the summer 12 years after opening. |
| | | Visual Receptors | **Moderate (Significant)** cumulative visual effects with Glenskinnan Renewable Energy Park are predicted during the winter year of opening for Viewpoint 5: Hillhead of Auquhirie reducing to Minor (Not Significant) by summer 12 years after opening. | **Moderate (Significant)** during winter year of opening. |
| | | Visual Receptors | **Major (Significant)** cumulative visual effects with Glenskinnan Renewable Energy Park are predicted during the winter year of opening for Viewpoint 6: Hill of Swanley, Fetteresso Forest | **Major (Significant)** during winter year of opening and **Moderate (Significant)** by the summer 12 years after opening. |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | | reducing to **Moderate (Significant)** by summer 12 years after opening. | |
| | | Visual Receptors | **Moderate (Significant)** cumulative visual effects with Glenskinnan Renewable Energy Park are predicted during the winter year of opening for Viewpoint 8: A8957 (Slug Road) at Rickarton near Bogheadly reducing to Minor (Not Significant) by summer 12 years after opening. | **Moderate (Significant)** during winter year of opening. |
| | | Landscape Receptors | **Moderate (Significant)** cumulative visual effects with Craigneil Wind Farm are predicted during the winter year of opening and by summer 12 years after opening for LCT 29: Summits and Plateaux – Aberdeenshire (eastern part of LCT). | **Moderate (Significant)** during winter year of opening and by the summer 12 years after opening. |
| | | Visual Receptors | **Moderate (Significant)** cumulative visual effects with Craigneil Wind Farm are predicted during the winter year of opening and by summer 12 years after opening for A957 Slug Road (between Durris Forest car park and Bogheadly). | **Moderate (Significant)** during winter year of opening and by the summer 12 years after opening. |
| | | Visual Receptors | **Moderate (Significant)** cumulative visual effects with Craigneil Wind Farm are predicted during the winter year of opening and by summer 12 years after opening for Fetteresso Forest Local Paths (at Hill of Swanley). | **Moderate (Significant)** during winter year of opening and by the summer 12 years after opening. |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | Visual Receptors | **Major (Significant)** cumulative visual effects with Craigneil Wind Farm are predicted during the winter year of opening for Viewpoint 6: Hill of Swanley, Fetteresso Forest reducing to **Moderate (Significant)** by the summer 12 years after opening. | **Major (Significant)** during winter year of opening reducing to **Moderate (Significant)** by the summer 12 years after opening. |
| | | Visual Receptors | **Major (Significant)** cumulative visual effects with Craigneil Wind Farm are predicted during the winter year of opening and by the summer 12 years after opening for Viewpoint 8: A957 (Slug Road) at Rickarton near Bodheadly. | **Major (Significant)** during winter year of opening and by the summer 12 years after opening. |
| | | Visual Receptors | **Moderate (Significant)** cumulative visual effects with Fetteresso Wind Farm are predicted during the winter year of opening for Fetteresso Forest Local Paths (at Upper Baulk, Hill of Trust and Hill of Swanley) reducing to Minor (Not Significant) by the summer 12 years after opening. | **Moderate (Significant)** during winter year of opening. |
| | | Visual Receptors | **Viewpoint 6: Hill of Swanley, Fetteresso Forest** | **Major (Significant)** during winter year of opening reducing to **Moderate (Significant)** by the summer 12 years after opening. |
| **9** | **Cultural Heritage** | Construction | Hurlie Bog, Hollow Way (Asset 154) | **No significant cumulative effects.** |
| | | Operation | Auquhirie Farmhouse (Asset 137; Category C Listed Building) setting is affected by the Hurlie 400kV substation during operation; however, there is no additional | No additional effect from Proposed Development due to screening therefore **no significant cumulative effect.** |

| EIAR Chapter | | Type | Description | Significance |
|---|---|---|---|---|
| | | | impact from the Proposed Development due to screening. | |
| 10 | **Geology and Ground Conditions** | **No significant cumulative effects identified.** | | |
| 11 | **Water Quality and Flood Risk** | **No significant cumulative effects identified.** | | |
| 12 | **Air Quality** | **No significant cumulative effects identified.** | | |
| 13 | **Noise and Vibration** | **No significant cumulative effects identified.** | | |
| 14 | **Traffic and Transport** | **No significant cumulative effects identified.** | | |
| 15 | **Climate Change** | GHG Emissions for Scotland and the UK | Cumulative impact of the Proposed Development and offshore components of the Project will displace electricity production from fossil fuel sources (to a greater or lesser extent) and is likely to result in an overall reduction of GHG emissions against that future baseline. | **Beneficial (Significant) cumulative effects** in the long-term for GHG emissions in Scotland and the UK. |
| | | Climate Change Risk Assessment | Potential inter-project related cumulative effects from other developments which have the potential to exacerbate the vulnerability of the Proposed Development to the effects of climate change. | **No significant cumulative effects identified.** |
| 16 | **Socio-Economics, Tourism and Recreation** | Socio-cultural character | Cumulative effect with other developments due to the large presence of infrastructure developments with potentially overlapping construction phases. | **Moderate adverse (Significant) cumulative effects** during construction phase of the Proposed Development. |

## 17.3 Conclusion

### Concluding Statement

17.3.1 The Onshore EIA has been carried out for the onshore elements of the Proposed Development in support of the application for PPP under the Town and Country Planning (Scotland) Act 1997 (as amended) (Scottish Government, 2017a), submitted to Aberdeenshire Council. The key focus of the planning application and associated submission, including the EIA, is to clearly establish the principle of development is acceptable in terms of policy.

17.3.2 The Proposed Development comprises all onshore components of the Project landward of MLWS including underground export cables, a new onshore substation, and all associated infrastructure (e.g. access tracks). At the landfall, the Proposed Development interfaces with the offshore components i.e. those seaward of Mean High Water Springs (MHWS), including wind turbine generators, cables, foundations, offshore substation platforms and all associated infrastructure.

17.3.3 A number of alternatives have been considered throughout the development of the onshore Project, both in terms of location of the infrastructure but also design options and construction installation methods, in order to refine the Proposed Development to a level at which a meaningful impact assessment can be conducted. The iterative site selection process involved consideration of environmental (e.g. environmentally designated sites, cultural heritage, woodland and landscape designations, amongst others) and technical (e.g. utilities, watercourses, and flood risk) constraints at various stages of the pre-application stage, informed by desk-based studies, specific surveys and stakeholder engagement. The site selection process and engineering design is ongoing and further refinements will occur as the Project progresses. Volume 1, Chapter 5: Site Selection and Reasonable Alternatives Considered outlines the design details that have been informed by the site selection process and where reasonable alternatives where considered.

17.3.4 This Onshore EIA Report provides a robust assessment of the likely environmental effects of the Proposed Development. The approach and methodology for the Onshore EIA Report is described in Volume 1, Chapter 3: EIA Methodology. The EIA process involved identifying potential impacts from the construction, operation and maintenance and decommissioning stages and assessing the likely significance of the associated effects on the receiving environment and receptors identified.

17.3.5 A Project Design Envelope (PDE) approach has been utilised to provide the flexibility for further refinement of the Proposed Development design in accordance with the Scottish Government (2022) Guidance on Using the Design Envelope for Applications under Section 36 of the Electricity Act 1989 and Planning Advice Note 1/2013 Revision 1 (Scottish Government 2017b). The first version of the PDE was presented within the EIA Scoping Report (TWP, 2024) and has since been refined for the purposes of this Onshore EIA Report through environmental surveys, technical and engineering studies and discussions with stakeholders and

the community, as part of the EIA process. In line with the Scottish Government guidance (2022), Volume 1 Chapter 2: The Proposed Development provides an explanation of why flexibility in the design parameters is required and necessary at this stage.

17.3.6 Within this Onshore EIA Report, the assessments are based on a Maximum Design Scenario (MDS) where the design option for each parameter is based on the parameter with the greatest impact (i.e., a reasonable worst-case scenario). Therefore, through applying the MDS, it can be concluded that the effect will be no greater for any other design scenarios where the parameters are within the MDS. For each of the impacts that have been assessed in the topic-specific chapters (see Volume 1, Chapters 6-16), the MDS is identified from the range of potential options for each parameter in the PDE. This is discussed in Volume 1, Chapter 2: The Proposed Development and is clearly defined in each topic specific chapter. This approach results in an EIA that can confidently state the likely significant environmental effects of the Proposed Development will be no greater than those identified and assessed.

17.3.7 The significance of effects were determined within each topic-specific assessment chapter (Volume 1, Chapters 6 – 16) by:

- identifying the existing baseline and therefore environmental receptors that could be impacted;
- defining the sensitivity of each receptor (influenced by tolerance to change, recoverability, adaptability and value);
- identifying the magnitude of impact (influenced by spatial extent, duration, frequency, intensity and likelihood); and
- using professional judgement, guidance and accepted approaches determining the potential consequence of the effect, and whether that significance level was significant in EIA terms.

17.3.8 Each impact assessment took account of Embedded Mitigation, and where significant effects were identified in the initial assessment, appropriate and proportionate Additional Mitigation proposed in order to reduce the residual effects to non-significant levels where possible. Where required monitoring has also been identified in each topic-specific discipline chapter (Volume 1, Chapters 6 – 16) to verify impact predictions and address uncertainties.

17.3.9 A schedule of mitigation commitments is provided in Volume 2, Technical Appendix 2.1: Schedule of Mitigation. Mitigation and monitoring will be further refined during the post-consent stage in accordance with any relevant planning conditions.

17.3.10 Overall, with the implementation of the Embedded and Additional Mitigation the majority of potential effects of the Proposed Development are predicted to be non-significant (see Table 17.1 and Table 17.2).

17.3.11 The exception to this are localised significant effects on visual receptors during the construction and O&M phases; temporary impacts on 23 agricultural land holdings during construction; temporary severance and disruption to three outdoor areas during construction; and potential for significant effects on five

GWDTEs and 14 Private Water Supplies that require further consideration at detailed design. Significant Beneficial effects are predicted for GHG Emissions for Scotland and the UK as a result of the Project.

17.3.12 The detailed design of the Substation is not yet known, and therefore, mitigation measures relevant to the final design cannot be specified in detail at this stage. However, it is envisaged that mitigation may include measures related to site design, colour schemes, and landscape screening, planting and retention of woodland. Similarly, the final alignment of the cable corridor routes will be subject to further refinement. The Applicant will continue to consider environmental impacts of the Proposed Development during further design refinement in the post-consent stage to reduce these effects where possible, informed by detailed engineering design studies.

*17.3.13* Despite the EIA predicting significant impacts, Policy 11 (e) of NPF4 states that

> *"In addition, project design and mitigation will demonstrate how the following impacts are addressed:*
> *i. impacts on communities and individual dwellings, including, residential amenity, visual impact, noise and shadow flicker;*
> *ii. significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/ or appropriate design mitigation has been applied, they will generally be considered to be acceptable;*
> *iii. public access, including impact on long distance walking and cycling routes and scenic routes;*
> *iv. impacts on aviation and defence interests including seismological recording;*
> *v. impacts on telecommunications and broadcasting installations, particularly ensuring that transmission links are not compromised;*
> *vi. impacts on road traffic and on adjacent trunk roads, including during construction;*
> *vii. impacts on historic environment;*
> *viii. effects on hydrology, the water environment and flood risk;*
> *ix. biodiversity including impacts on birds;*
> *x. impacts on trees, woods and forests;*
> *xi. proposals for the decommissioning of developments, including ancillary infrastructure, and site restoration;*
> *xii. the quality of site restoration plans including the measures in place to safeguard or guarantee availability of finances to effectively implement those plans; and*
> *xiii. cumulative impacts.*
> *In considering these impacts, significant weight will be placed on the contribution of the proposal to renewable energy generation targets and on greenhouse gas emissions reduction targets.*
> *Grid capacity should not constrain renewable energy development. It is for developers to agree connections to the grid with the relevant network operator.*

*In the case of proposals for grid infrastructure, consideration should be given to underground connections where possible."*

17.3.14 NPF4 (Scottish Government, 2023) has a key focus on Scotland's national assets, particularly the environment which is covered under Policy 3 and 4 (Biodiversity and Natural Places). These policies are part of a strategy to support, plan and deliver Sustainable Places through restoration and enhancement opportunities to protect and strengthen the local biodiversity. The Applicant has an ambition to not only conserve local biodiversity but to also enhance it where possible. A Biodiversity Enhancement Plan is proposed additional to the mitigation measures already embedded into the Proposed Development. The approach includes, but is not limited to, partnering with key stakeholders, neighbouring developers and the local community to ensure that any proposed enhancements are suited to the environment that they are situated in and will benefit not only the primary species but the wider ecosystem.

17.3.15 A suite of post-consent plans will be developed as the onshore Project design is finalised, in line with PPP conditions. The Outline Construction Environmental Management Plan (CEMP) in Volume 2, Technical Appendix 2.2 of this EIA supports the PPP application will be updated and finalised during the post-consent stage for approval by Aberdeenshire Council.

17.3.16 If successful in obtaining PPP (and Section 36 consent and Marine Licences for the offshore infrastructure), the Project will play a key role in fulfilling Scottish and United Kingdom (UK) renewable energy and climate change reduction targets and will have beneficial impacts for energy security and on the local and Scottish economy, for example through positive contributions towards employment opportunities and wider economic output.

17.3.17 A Planning Statement accompanies the PPP application and sets out, the designation of the Proposed Development as a National Development, which clearly defines the need for the Proposed Development in planning terms. This designation and established need is further reinforced by the compliance with relevant policies within the Development Plan, primarily comprising NPF4 and the Aberdeenshire LDP. The principle of the Proposed Development, made up of Landfall, Onshore Export Cable Corridor, 400 kV Cable Corridor and Substation is shown to be acceptable in planning and environmental terms and as such in considered to comply with all relevant policy.

### Next Steps

17.3.18 Following the submission and acceptance of this Onshore EIA Report and supporting PPP application, the key next steps are as follows:

1) **Notifications and consultation**: The Applicant will notify owners, and agricultural tenants of all land and buildings which are within the PPP Application Boundary. Aberdeenshire Council will undertake publication of the application upon validation of the application and thereafter consultation with stakeholders.

2) **Determination stage**: Aberdeenshire Council will consider the information provided within this Onshore EIA Report and supporting documentation,

representations from the public and comments from consultees in their decision making process to determine whether PPP should be granted.

3) **Notification of decisions**: If successful in obtaining the PPP applied for, a decision notice along with the PPP will be issued by Aberdeenshire Council detailing the conditions to which the decision is subject.

4) **Post-consent**: The Applicant will continue to refine and finalise the PDE during the post-consent stage, and this will be informed by further surveys, technical and engineering studies, technology advancements, supply chain considerations and discussions with stakeholders and the community. BOWFL will discharge and/or comply with all relevant PPP conditions within the timeframe specified and in consultation with stakeholders where relevant.

5) **Construction, O&M and decommissioning**: Once all necessary environmental, financial and supply chain requirements are secured, the construction of the onshore Project will commence. The construction programme will depend on contractor and equipment availability, weather conditions and other supply chain or logistical issues. However, as noted in Chapter 2 it is envisaged that construction may last approximately four years. Once construction and commissioning of the Project (onshore and offshore) is complete, it will enter into the O&M stage, and the decommissioning stage will commence at the end of the operational life. A Decommissioning Plan would be prepared and agreed with Aberdeenshire Council prior to decommissioning works being undertaken.

# References

(Scottish Government, 2017a),

Scottish Government (2017a) The Town and Country Planning (Scotland) Act 1997 (as amended) Available at: The Town and Country Planning (Scotland) Act 1997 (as amended) (Accessed 28/10/2025)

Scottish Government (2017b) Planning Advice Note 1/2013: Environmental Impact Assessment (Revision 1) Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2013/08/planning-advice-note-1-2013-environmental-impact-assessment/documents/00521028-pdf/00521028-pdf/govscot%3Adocument/00521028.pdf. (Accessed: November 2025)

Scottish Government (2022). Electricity Act 1989 – section 36 applications: guidance for applicants on using the design envelope. Available online at: https://www.gov.scot/publications/guidance-applicants-using-design-envelope-applications-under-section-36-electricity-act-1989/ (Accessed 20/11/2025)

Scottish Government (2023). National Planning Framework 4. Available online at: https://www.gov.scot/publications/national-planning-framework-4/ (Accessed 28/10/2025)

Thistle Wind Partners (2024). Bowdun Offshore Wind Farm Onshore Scoping Report. RPS. TWP-BOW-RPS-OSC-RPT-00002. Available online at: https://thistlewindpartners.scot/assets/uploads/Bowdun-Onshore-Scoping-Report_04.09.2024.pdf (Accessed 20/11/2025)