

Technical Addendum

MarramWind Offshore Wind Farm

September 2026

MarramWind

Document code:	MAR-GEN-PAM-REP-WSP-000012
Version:	Accepted
Date:	24/09/2026
Prepared by:	WSP UK Limited
Checked by:	WSP UK Limited
Approved by:	MarramWind Limited

Acronyms

Acronym	Definition
AC	Aberdeenshire Council
AOD	Above Ordnance Datum
EIA	Environmental Impact Assessment
GW	Gigawatt
HVAC	High-Voltage Alternating Current
HVDC	High-Voltage Direct Current
LCT	Landscape Character Type
LVIA	Landscape and Visual Impact Assessment
MLWS	Mean Low Water Springs
NPF4	National Planning Framework 4
OLAS	Outline Landscape and Architectural Strategy
O&M	Operation and Maintenance
PPiP	Planning Permission in Principle
RVAA	Residential Visual Amenity Assessment
SPR	ScottishPower Renewables
VP	Viewpoint
WSP	WSP UK Limited
ZTV	Zone of Theoretical Visibility

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1 Introduction

1.1 Purpose

1.1.1.1 This Technical Addendum has been prepared in support of Planning Application APP/2025/2060.

1.1.1.2 The document considers the implications of revisions to the proposed Onshore Substation design, including a reduction in the maximum HVDC building height from 30.75m to 23.75m, together with associated architectural and landscape mitigation measures.

1.1.1.3 The Technical Addendum should be read alongside the submitted **Environmental Impact Assessment (EIA) Report** and revised **Outline Landscape and Architectural Strategy (OLAS)**.

1.2 Scope of assessment

1.2.1.1 This Technical Addendum:

- identifies the proposed design changes;
- considers the implications for the Landscape and Visual Impact Assessment (LVIA);
- identifies any changes to the findings and conclusions of the original assessment; and
- records any updates required to the associated landscape and visual mitigation strategy.

1.3 Revised design parameters

Parameters	Original submission	Revised submission
Maximum HVDC Building Height	30.75m	23.75m
Architectural Treatment	Original	Revised
Landscape Mitigation	Original OLAS	Enhanced OLAS

2 Revised LVIA for Onshore Substation Zone

2.1 Introduction

2.1.1.1 This Section provides an assessment of the effects on landscape receptors resulting from the construction, operation and maintenance (O&M) and decommissioning of the onshore substations located within the onshore substation zone and subject to embedded mitigation, described in **Volume 1, Chapter 27 Landscape and Visual** of the EIA Report and in the **revised OLAS**[1].

2.1.1.2 No other changes are proposed to other components of the Project.

2.1.1.3 The assessment follows the methodology set out in V**olume 1, Chapter 27 Landscape and Visual** of the EIA Report and described in more detail in **Volume 3, Appendix 27.1 Landscape and Visual Assessment Methodology** of the EIA Report.

2.1.1.4 These effects are assessed by considering the landscape or visual sensitivity of the receptor (value and susceptibility) against the magnitude of change. The type of effect may also be described as short, medium or long-term, direct or indirect, cumulative and beneficial, neutral, or adverse.

2.1.1.5 The revised maximum HVDC building height should also be read alongside embedded mitigation measure M-185, which formed part of the submitted EIA mitigation framework for the onshore substation zone. The reduction in the maximum height of the southern HVDC block from 30.75m to 23.75m (Option C) represents a refinement of the design parameters assessed in the EIA and should be reflected, where necessary, in **Volume 3, Appendix 5.2 Commitments Register** of the EIA Report and any associated application documents that refer to the original maximum height.

2.2 Zone of theoretical visibility and visualisations

2.2.1.1 The Landscape and Visual Impact Assessment (LVIA) is supported by Zone of Theoretical Visibility (ZTV) and visualisations.

2.2.1.2 The revised ZTV's indicate the extent of theoretical visibility of the onshore infrastructure during construction and O&M and take account of the reduced maximum height of the southern block within the onshore substation zone (up to 23.75m) as follows:

- **Figure A27.2a** – provides an update of the EIA Report - Figure 27.2, as well as a comparative ZTV indicating any change in the geographical extent of the ZTV due to the reduced maximum height of the southern block (up to 23.75m).

2.2.1.3 The comparative ZTV (**Figure A27.2a**, Sheet 2) indicates marginal change to the geographical extent of theoretical visibility. Within 2km the areas of reduced ZTV coverage include land to the north of Torterston; to the east fragments of land in the Forehill area; in the south fragments of land near Gateside of Cocklaw and Auchtygall Croft; and in the west further fragments close to Thunderton.

2.2.1.4 The following viewpoint visualisations have also been revised.

[1] For the purposes of this Technical Addendum, references to the "revised OLAS" mean the updated version of the submitted OLAS, amended to reflect the reduced maximum HVDC building height, updated architectural treatment, revised façade colours, earthworks and associated landscape mitigation measures.

- **Figure A27.2.3a-e** Onshore Substation Viewpoint 3: Stockbridge East;
- **Figure A27.2.5a-f** Onshore Cable Corridor Viewpoint 5: Downieshill Cottage;
- **Figure A27.2.6a-f** Onshore Cable Corridor Viewpoint 6: Toddlehills (quarry); and
- **Figure A27.2.7a-f** Onshore Cable Corridor Viewpoint 7: Cowsrieve.

2.2.1.5 Each of the viewpoint visualisations illustrate three options in order to demonstrate the addition of bunding (Option A), an intermediate building height option (Option B), and the revised submission (Option C) as follows:

- Option A: Original imagery with amended façade colours, plus vegetation screening at 10-15 years maturity based on a new 1 m bund.
- Option B: Amended façade colours, HVDC buildings in southern block reduced to 26.75 m in height (including 0.75 m plinth), plus vegetation screening at 10-15 years maturity based on a new 1 m bund.
- Option C: Amended façade colours, HVDC buildings in southern block reduced to 23.75 m in height (including 0.75 m plinth), plus vegetation screening at 10-15 years maturity based on a new 1 m bund.

2.2.1.6 No other EIA figures require revision as a result of these changes.

2.3 Landscape effects

2.3.1.1 The onshore substation zone is located to the south of the A950 and south-east of Longside Airfield in an area of LCT 17a: Coastal Agricultural Plain and the associated subdivision LCT 17c: A950 / Longside Airfield which characterises the northern part of this zone.

2.3.1.2 A description of the onshore substations' construction is provided in **Volume 1, Chapter 4: Project Description** of the EIA Report.

2.3.1.3 The EIA Report summarised in Section 27.9.4.3 Onshore Substation Zone "*there would be significant landscape effects resulting from the three co-located onshore substations (comprising either fully enclosed or partially enclosed options) affecting both LCT 17a: Coastal Agricultural Plain and the LCT 17c: A950 / Longside Airfield sub-area out to a distance of 500m to 1km. The nature of these effects in terms of beneficial landscape and architectural mitigation would be subject to the detailed design and implementation of the Volume 4: Outline Landscape Architectural Strategy*."

2.3.1.4 A summary of the EIA Report's landscape assessment is provided in **Table 1**.

Table 1 Summary of landscape effects of onshore substations (fully enclosed)

Landscape receptor within the onshore substation zone	**Level of effect**		
Construction	Phase 1	Phase 2	Phase 3
LCT 17a: Coastal Agricultural Plain	**Moderate** (<400m).	**Moderate** (<400m).	**Major / Moderate to Moderate** (<500m).
LCT 17c: A950 / Longside Airfield	**Moderate**	**Moderate**	**Moderate**

Landscape receptor within the onshore substation zone	Level of effect		
	(<300m to 500m).	(<300m to 500m).	(<300m to 500m).
O&M			
LCT 17a: Coastal Agricultural Plain	**Major / Moderate to Moderate** (<500m) for both options. The nature of these significant effects could be beneficial subject to the detailed design and implementation of the **revised OLAS**.		
LCT 17c: A950 / Longside Airfield	**Moderate** (<500m) for both options The nature of these significant effects could be beneficial as above.		
Decommissioning			
LCT 17a: Coastal Agricultural Plain	Significant effects reversed.		
LCT 17c: A950 / Longside Airfield			

2.3.1.5 In reviewing the landscape assessment, there would be **no change** to this assessment, noting that the reduced maximum height for the southern block (up to 23.75m) would not alter effects on landscape character. Although it would be perceived as a visual change from some particular viewpoints there would be no change to the landscape character assessment. Visual effects are assessed in the next section.

2.4 Visual effects

2.4.1.1 The assessment of visual effects follows the same approach taken in **Volume 1, Chapter 27 Landscape and Visual** and includes both receptor assessment, guided by viewpoint analysis.

2.4.2 Viewpoint analysis

2.4.2.1 The viewpoint analysis reported in **Volume 3, Appendix 27.2 Viewpoint Assessment** of the EIA Report indicated that significant visual effects arising from the construction and O&M of the onshore substations would extend to within approximately 1.5km distance from the onshore substation zone. A review of the four visualisations indicates a noticeable reduction in the intensity of visual effect, although despite a change to the appearance of the onshore substations and a reduction in prominence of the southern block, the visual effect assessed in the viewpoint analysis would remain Significant. This is summarised in **Table 2.**

Table 2 Magnitude of change for identified viewpoints

Viewpoint	Summary
VP3	Reduced building height and enhanced mitigation reduce visual magnitude. Significant effect remains.
VP5	Limited change due to screened nature of Phase 3 buildings. Significant effect remains.
VP6	Reduced building height and mitigation reduce visual prominence. Significant effect remains.
VP7	Reduced skyline intrusion and prominence. Significant effect remains.

2.4.3 Visual effects on settlements and residential properties

2.4.3.1 The EIA Report reported no significant visual effects on the views from settlements (including Longside and Peterhead) due to the construction and O&M of the onshore substations.

2.4.3.2 There would be no significant effects from decommissioning of the onshore substations.

Residential Visual Amenity Assessment

2.4.3.3 There would be **no change** to the Residential Visual Amenity Assessment (RVAA) reported in Volume 3, Appendix 27.3 of the EIA Report which concluded that none of the residential properties would incur a breach of the Residential Visual Amenity Threshold where the visual effects (although significant) would be so severe as to be considered as "*overwhelming views in all directions*"; "*unpleasantly encroaching*" or being "*inescapably dominant from the property*" as exampled in the RVAA guidance (Landscape Institute, 2019a).

2.4.4 Visual effects on transport routes

2.4.4.1 The EIA Report identified significant visual effects on the views from part of the A950 and six minor roads within the onshore substation zone 5km study area, during construction and O&M. No significant effects would remain on completion of the decommissioning of the onshore substations.

2.4.4.2 The minor roads are identified in Volume 2, Figure 27.5a Onshore substations visual receptors of the EIA Report and a review of the visual assessment for these receptors is summarised as follows.

2.4.4.3 There would be **no change** to the assessment of receptors on the following transport routes to the north and east of the onshore substation zone as follows:

- A950;
- Minor road (9) - east of the onshore substations;
- Minor road (7) - Torterston Road / A950; and
- Minor road (8) - Downiehills Farm Road.

2.4.4.4 There would be a **change** (reduced effects) to the assessment of receptors on the following minor roads to the south and west of the onshore substation zone, although the visual effects would remain significant.

- Minor Road (10) - between Stockbridge and Lochside;
- Minor Road (11) - south of the onshore substations to Hillhead of Cocklaw;
- Minor Road (12) - west of the onshore substations A950 to West Toddlehills; and
- Minor Road (13) - between A950 and Toddlehills.

A950

2.4.4.5 The EIA Report reported that during construction the magnitude of change would range between high to medium and the level of effect would be **Major / Moderate** and Significant as a result of multiple construction activities related to the onshore export cable corridor and associated construction compounds and the northern block of the onshore substations which would screen the southern block (maximum design scenario). The nature of this effect would be medium-term duration, direct and adverse, although increasingly changing to neutral / beneficial on account of the landscape and architectural mitigation described in the **revised OLAS**. The neutral / beneficial effects would continue through O&M and decommissioning.

2.4.4.6 The reduced maximum height for the southern block (up to 23.75m) would not alter this assessment due to its location beyond the northern block and there would be **no change** to this assessment.

Minor Roads (7) - Torterston Road / A950 and (8) - Downiehills Farm Road

2.4.4.7 As with the A950, the EIA Report reported that during construction, significant visual effects would result from the onshore export cable corridor and associated construction compounds and the southern block (maximum design scenario) would be screened by the northern block resulting in a medium magnitude and a **Moderate and Significant** level of effect. The nature of this effect would be long-term (reversible), direct and adverse (see **Figure A27.2.5a-f**: **Viewpoint 5: Downieshill Cottage Option C** which is representative).

2.4.4.8 The reduced maximum height for the southern block (up to 23.75m) would not alter this assessment and there would be **no change** to the assessments for minor roads (7) and (8).

Minor Road (9) - east of the onshore substations

2.4.4.9 During construction (phases 1-2) the EIA Report reported significant visual effects (**Major / Moderate to Moderate**). However, during phases 1 to 3 the landscape and architectural mitigation described the **revised OLAS** would become increasingly visible as a new and significant feature in the landscape, with landscape screening likely to completely screen out views of the onshore substations by phase 3 resulting in a neutral / beneficial effect subject to the implementation of the landscape and architectural mitigation.

2.4.4.10 There would be **no change** to this assessment.

Minor Road (10) - between Stockbridge and Lochside

2.4.4.11 During construction (phases 1-3) the EIA Report reported significant visual effects (**Major / Moderate to Moderate**). However, as above, during phases 1 to 3 the landscape and architectural mitigation described in the **revised OLAS** would become increasingly visible as a new and significant feature in the landscape, with landscape screening likely to

completely screen out views of the onshore substations from the eastern most 800m of the route by phase 3 resulting in a neutral / beneficial effect subject to the implementation of the landscape and architectural mitigation.

2.4.4.12 The EIA Report also reports that significant residual effects would remain for the 450m of the western part of this route, due to the visibility of the onshore substations (High magnitude of change and Major / Moderate and Significant during construction and O&M). Due to the reduced maximum height of the onshore substation southern block (up to 23.75m) and earthworks up to 1m, the magnitude of change would reduce to between High to Medium and the level of effect to between **Major / Moderate to Moderate**, although remaining significant. The nature of this effect would remain long-term (reversible), direct and adverse (see **A27.2.3a-e**: **Viewpoint 3: Stockbridge east Option C** which is representative).

2.4.4.13 There would be a **change** (reduced effect) to this assessment.

Minor Road (11) - south of the onshore substations to Hillhead of Cocklaw

2.4.4.14 The EIA Report reports significant visual effects on the views from most of this road at 1km distance resulting from the construction of phases 1 to 3 and the O&M the onshore substations. Due to the increasing elevation, landscape mitigation within the onshore substation zone would not screen the onshore substations, although it would enclose them. (see **A27.2.7a-f**: **Viewpoint 7 Cowsrieve Photomontage Option C** which is similar to the likely views, although more distant).

2.4.4.15 Due to the reduced maximum height of the onshore substation southern block (up to 23.75m) the magnitude of change would reduce to between Medium to Low and the level of effect to between **Moderate** to **Minor**, although remaining significant from part of this route. The nature of this effect would remain long-term (reversible), direct and adverse.

2.4.4.16 There would be a **change** (reduced effect) to this assessment.

Minor Road (12) - west of the onshore substations between A950 and West Toddlehills

2.4.4.17 The EIA Report reports significant visual effects on the views from most of this road at 1.7km distance resulting in part from the construction of phases 1 to 3 and the O&M of the onshore substations (High to Medium magnitude of change and Major / Moderate to Moderate and Significant effect).

2.4.4.18 Due to the reduced maximum height of the onshore substation southern block (up to 23.75m) and earthworks up to 1m, the magnitude of change would reduce slightly (Medium), and the level of effect would reduce to **Moderate,** although it would remain significant. The nature of this effect would remain long-term (reversible), direct and adverse (see **Figure A27.2.3a-e: Viewpoint 3: Stockbridge east Option C** which is representative).

2.4.4.19 There would be a **change** (reduced effect) to this assessment.

Minor Road (13) - between A950 and Toddlehills

2.4.4.20 The EIA Report reports significant visual effects on the views from most of this road at 1.5km distance, resulting in part from the construction of phases 1 to 3 and the O&M of the onshore substations (Medium magnitude of change and Major / Moderate to Moderate and Significant effect).

2.4.4.21 Due to the reduced maximum height of the onshore substation southern block (up to 23.75m) and earthworks up to 1m, the magnitude of change would reduce slightly

(Medium), and the level of effect would reduce to **Moderate** although it would remain significant. The nature of this effect would remain long-term (reversible), direct and adverse (see **Figure A27.2.6a-f Viewpoint 6: Toddlehills (quarry) Option C** which is representative).

2.4.4.22 There would be a **change** (reduced effect) to this assessment.

2.4.5 Visual effects on recreational routes

2.4.5.1 The EIA Report identified no effect on the Formartine and Buchan Way and no significant visual effects on other recreational routes as a result of the onshore substations during construction, O&M or decommissioning. This includes views from the following receptors:

- Core path 208.01 at Longside;
- Core path 215.11, west of Peterhead; and
- Buthlaw River Ugie path network:
  - JC Buthlaw Ugie Walk;
  - JC Faichfield Buthlaw Walk;
  - JC Longside Innerfummery Loop; and
  - JC The Grave (partly overlapping with Core path 208.01).

2.4.5.2 In all cases the EIA Report, **Table 27.18** reported "*As a precaution the level of effect would be **Minor and Not Significant** with potential glimpsed views of the top of a crane appearing intermittently, subject to the need for cranage through construction phases 1, 2 and 3. The nature of these effects would be medium-term, temporary, indirect and neutral*."

2.4.5.3 There would be **no change** to this assessment.

2.4.6 Visual effects on recreational and visitor attractions

2.4.6.1 The EIA Report identified no significant visual effects on recreational and visitor attractions as a result of the onshore substations during construction, O&M or decommissioning. This includes views from the following receptors:

- Reform Tower, Peterhead;
- Longside Golf Course; and
- Golf Driving Range at Longside Airfield.

2.4.6.2 In all cases the EIA Report, **Table 27.19** reported "*As a precaution a **Minor / Negligible and Not Significant** effect has been noted due to the potential glimpsed views of the top of a crane, for the onshore substations, during construction phases 1, 2 and 3. The nature of these effects would be medium-term, temporary, indirect and neutral*."

2.4.6.3 There would be **no change** to this assessment.

2.5 Other effects

2.5.1.1 There would be **no change** to the EIA Report assessment of transboundary, inter-related (Volume 1, Chapter 32: Inter-Related Effects of the EIA Report) or cumulative effects (Volume 1, Chapter 33: Cumulative Effects Assessment of the EIA Report). The conclusions of the cumulative assessment remain unchanged. However, the revised design parameters

reduce the contribution of the onshore substation zone to cumulative landscape and visual effects when compared with the original assessed design envelope.

2.6 Summary of residual significant effects: onshore substations

2.6.1.1 There would be **no change** to the overall conclusion of the EIA Report that significant residual effects would remain in relation to the onshore substations during construction and O&M. However, the reduced maximum HVDC building height, together with associated architectural and landscape mitigation, would reduce the magnitude and nature of visual change for some receptors, particularly on minor roads to the south and west of the onshore substation zone.

2.6.1.2 Significant effects resulting from the onshore substations are unavoidable and would persist through the construction and O&M stages due to the height and scale of the onshore substations. Although the height has been reduced by 23% (from a maximum height of up to 30.75m to a maximum height of up to 23.75m) significant and adverse effects on the existing undesignated agricultural landscape character and the views from minor roads crossing this landscape and associated residential properties would remain.

2.6.1.3 Landscape and architectural mitigation as described in the **revised OLAS** is proposed to reduce these effects; subject to the detailed design and implementation it would introduce beneficial effects and provide additional landscape and architectural enhancement with attendant biodiversity and nature conservation improvements.

2.6.1.4 Additionally, as outlined in the **revised OLAS**, opportunities for further mitigation in the form of offsite planting and wider landscape enhancement will be funded via the provision of a Public Amenity Fund, subject to landowner consent. This could strengthen the existing landscape pattern of trees, woodland and hedges in the area surrounding the onshore substations and provide increased screening and an enhanced landscape setting to better integrate the development within its landscape context.

2.6.1.5 Decommissioning of the onshore substations would remove significant effects on landscape character whilst leaving a beneficial, landscape legacy of mature woodland, trees and hedgerows.

3 Conclusion

3.1.1.1 This Technical Addendum assesses the implications of the following revisions to the onshore substation design parameters:

- reduction in maximum HVDC building height from 30.75m to 23.75m;
- revised architectural treatment;
- enhanced landscape mitigation; and
- associated updates to the OLAS.

3.1.1.2 The assessment concludes that the revised design reduces the magnitude and prominence of effects for a number of visual receptors, particularly in views from the south, east and west of the onshore substation zone. However, the localised nature of these effects means that their significance remains unchanged in EIA terms.

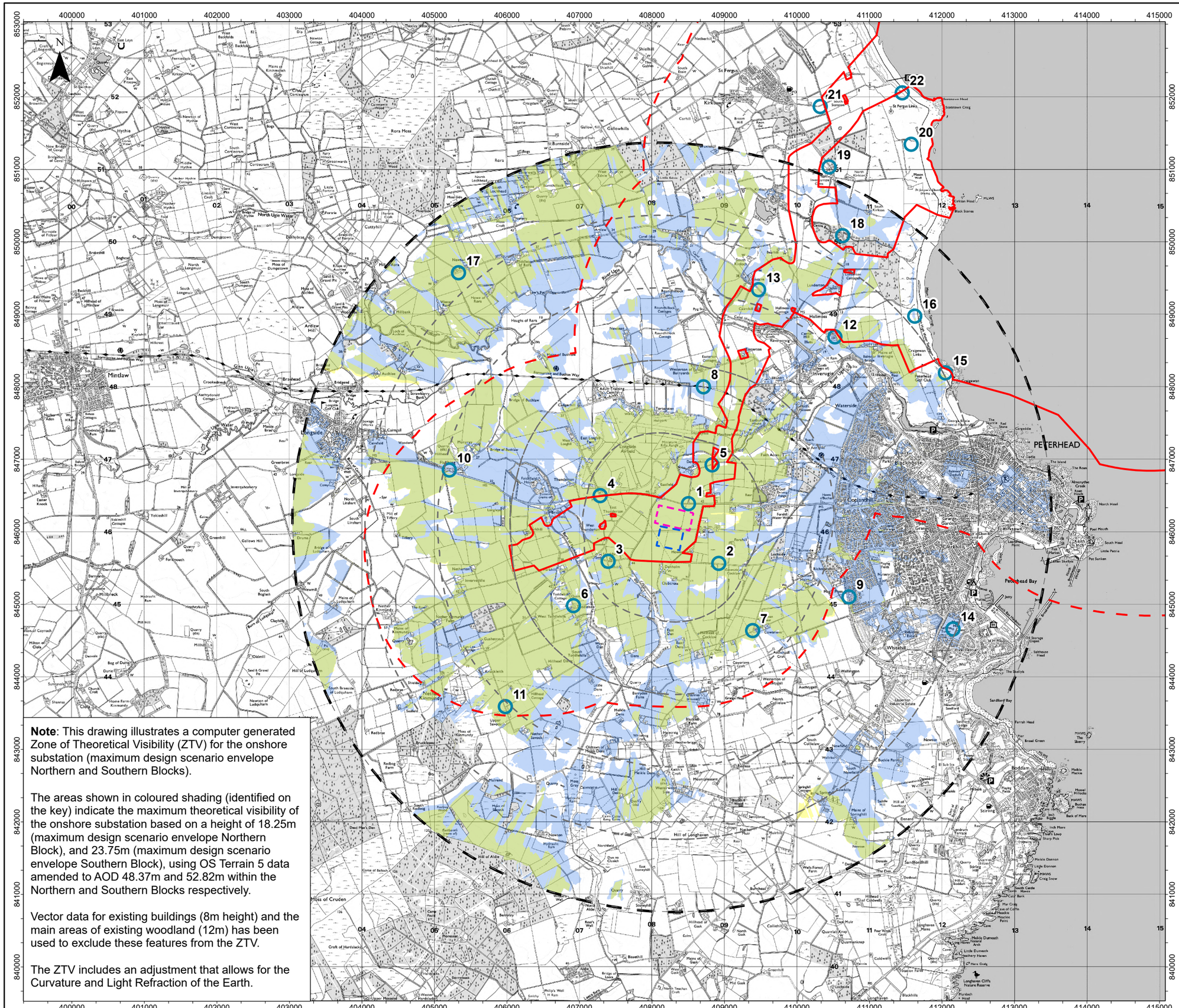
3.1.1.3 This Technical Addendum should be read alongside the submitted EIA Report, revised figures, revised OLAS and associated application documents.

Appendix A Register of application documents detailing the onshore substation height

Document Name	Document Reference	Location	Reference
EIA Report Volume 1, Chapter 4: Project Description	MAR-GEN-PMG-REP-WSP-000068	Section 4.8.3.5 Table 4.25	Maximum building height for HVDC electrical infrastructure stated as up to 30m.
EIA Report Volume 1, Chapter 23: Terrestrial Ecology and Ornithology	MAR-GEN-ENV-REP-WSP-000058	Table 23.3 Potential effects for terrestrial ecology and ornithology, ZOIs and justification for scoped-in features	Up to 30m beyond the Onshore Red Line Boundary. Up to 30m beyond maintenance areas (based on NatureScot protected species advice).
		Table 23.7 Maximum design scenario for impacts on terrestrial ecology and ornithology	Up to 30m for High Voltage Direct Current (HVDC) infrastructure.
EIA Report Volume 1, Chapter 24: Onshore Archaeology and Cultural Heritage	MAR-GEN-ENV-REP-WSP-000070	Section 24.7, bullet point within paragraph 24.7.1.3	The maximum height (30.75m Above Ordnance Datum (AOD)) of the onshore substations within the southern block has been based on the proposed platform height (52.82m AOD), plus the foundation and building plinth depth (up to 750mm), plus the maximum height of the onshore substation HVDC infrastructure (up to 30m). The maximum height (18.25m AOD) of the onshore substations within the northern block, has been based on the proposed platform height (48.37m AOD), plus the foundation and building plinth depth (up to 750mm), plus the maximum height of the onshore substation (HVAC) infrastructure (up to 17.5m).
		Table 24.7 Maximum design scenario for impacts on onshore archaeology and cultural heritage	The maximum height (30.75m AOD) of the onshore substations within the southern block has been based on the proposed platform height (52.82m AOD), plus the foundation and building plinth depth (up to 750mm), plus the maximum height of the onshore substation HVDC infrastructure (up to 30m). The maximum height (18.25m AOD) of the onshore substations within the northern block, has been based on the proposed platform height (48.37m AOD), plus the foundation and building plinth depth (up to 750mm), plus the maximum height of the onshore substation HVAC infrastructure (up to 17.5m).
EIA Report Volume 1, Chapter 27: Landscape and Visual	MAR-GEN-ENV-REP-WSP-000060	Table 27.7 Maximum design scenario for impacts on landscape and visual	The maximum height (30.75m AOD) of the onshore substations within the southern block has been based on the proposed platform height for the maximum design scenario parameters (52.82m AOD), plus the foundation and building plinth depth (up to 750mm), plus the maximum height of the onshore substations HVDC infrastructure (up to 30m). The maximum height (18.25m AOD) of the onshore substation within the northern block within the ZTVs and annotated viewpoints has been based on the proposed platform height for the maximum design scenario parameters (48.37m AOD), plus the foundation and building plinth depth (up to 750mm), plus the maximum height of the onshore substations HVAC infrastructure (up to 17.5m). Note: the HVAC infrastructure illustrated in Volume 3, Appendix 27.2, Figures 1-4 uses a platform height of 46.98m AOD for phase 1 onshore substation and 48.37m for phase 2 onshore substation.
		Table 27.7 Maximum design scenario for impacts on landscape and visual	The maximum height (30.75m AOD) of the onshore substations within the southern block has been based on the proposed platform height (52.82m AOD), plus the foundation and building plinth depth (up to 750mm), plus the maximum height of the onshore substation HVDC infrastructure (30m); and The maximum height (18.25m AOD) of the onshore substation within the northern block, has been based on the proposed platform height (48.37m AOD), plus the foundation and building plinth depth (up to 750mm), plus the maximum height of the onshore substation HVAC infrastructure (up to 17.5m).
		Table 27.8 Relevant landscape and visual embedded environmental measures, ID: M185	Due to the proximity of the onshore substations to receptors on the A950 and the topography of the onshore substation site, HVAC electrical infrastructure (maximum height of 18.25m) to be placed to the north of the onshore substation site; and HVDC (maximum height of 30.75m) placed to the south of the onshore substation site, as described further in Section 27.7.1.
		ZTV visibility analysis, paragraph 27.7.3.2	Volume 2, Figure 27.2a –illustrates the ZTV within the 5km study area for the onshore substations during O&M calculated to a maximum height of 30.75m within the southern block and 18.25m within the northern block. Theoretical visibility is almost continuous within 1km to 2km distance in all directions and extends west to 3km to 4km distance and limited to higher ground in the south-west and the north-northwest. There is little or no ZTV coverage at Peterhead and along the coast.
		Table 27.10 Viewpoint analysis	Onshore substations (Southern Block parameter maximum design parameter height 30.75m): the likely threshold for significant visual effects is approximately <1.5km distance from the onshore substations as illustrated by Viewpoints 1-7 (Volume 3, Appendix 27.2, Figures 1-7).
		Magnitude and level of effect during construction: phase 3. paragraph 27.9.4.24	Construction of the phase 3 onshore substation would occur during phase 3 (Years 7-9) along with related works associated with the onshore export cable and the onshore grid connection (Zones A and B). Notably the maximum height of the phase 3 onshore substation would be 30.75m above the platform level8 (M-185).
		Magnitude and level of effect during O&M and decommissioning, paragraph 27.10.2.21	The ZTV in Volume 2, Figure 27.2a indicates very limited ZTV overlap with theoretical visibility of the onshore substations at 30.75m height occurring near the school on Inn Brae. There would be negligible to no view from this settlement of the onshore substations during O&M. Additionally, there would be no visible O&M activities or above ground infrastructure associated with the onshore export cable corridor.
		Footnote on page 87	Includes an allowance for 600mm foundation and 150mm plinth in addition to the 30m maximum building height.
EIA Report Volume 2, Figure 24.7: Zone of Theoretical Visibility of Onshore Substations (Construction)	MAR-GEN-ENV-MAP-WSP-000517	N/A	Not specifically referenced - but conclusions rely on the maximum substation height/ associated visual modelling assumptions.
EIA Report Volume 2, Figure 24.8 Zone of Theoretical Visibility (ZTV) of onshore substations - operational (including designated heritage assets)	MAR-GEN-ENV-MAP-WSP-000278	Within the key	Onshore substation site southern block (30.75m) The areas shown in coloured shading (identified on the key) indicate the maximum theoretical visibility of the onshore substation based on a height of 18.25m (maximum design scenario envelope northern block, Phases 1 and 2), and 30.75m (maximum design scenario envelope southern block), using OS Terrain 5 data amended to AOD 48.37m and 52.82m within the northern and southern blocks respectively.

Document Name	Document Reference	Location	Reference
EIA Report Volume 2, Figure 27.4 Landscape designations and landscape character types	MAR-GEN-ENV-MAP-WSP-000354	Within the key	Maximum design scenario envelope Southern Block (30.75m)
EIA Report Volume 2, Figure 27.6a Residential properties within 500m of the onshore substations	MAR-GEN-ENV-MAP-WSP-000357	Within the key	Zone of theoretical visibility for maximum design scenario envelope Southern Block (30.75m) The areas shown in coloured shading (identified on the key) indicate the maximum theoretical visibility of the onshore substation based on a height of 18.25m (maximum design scenario envelope Northern Block, Phases 1 and 2), and 30.75m (maximum design scenario envelope Southern Block), using OS Terrain 5 data amended to AOD 48.37m and 52.82m within the Northern and Southern Blocks respectively.
EIA Report Volume 2, Figure 27.2a Zone of Theoretical Visibility of onshore substations	MAR-GEN-ENV-MAP-WSP-000351	Within the key / note	Maximum design scenario envelope Southern Block (30.75m) Zone of theoretical visibility for maximum design scenario envelope Southern Block (30.75m). Zone of theoretical visibility for maximum design scenario envelope Northern and Southern Blocks (18.25m and 30.75m).
EIA Report Volume 2, Figure 27.2b: Zone of Theoretical Visibility (Construction)	MAR-GEN-ENV-MAP-WSP-000352	N/A	Not specifically referenced - but conclusions rely on the maximum substation height/ associated visual modelling assumptions.
EIA Report Volume 2, Figure 33.25e Other developments screened into the CEA for landscape and visual Viewpoint A: Formartine Buchan Way near Easterton Cottages Southeast View	MAR-GEN-ENV-MAP-WSP-000588	Within the key	Indicative, Onshore Substations, 30.75m Indicative, Onshore Substations, 30.75m (Screened)
EIA Report Volume 2, Figure 33.25h Other developments screened into the CEA for landscape and visual Viewpoint B: Upper Savock Northeast View	MAR-GEN-ENV-MAP-WSP-000589	Within the key	Indicative, Onshore Substations, 30.75m Indicative, Onshore Substations, 30.75m (Screened)
EIA Report Volume 2, Figure 33.25l Other developments screened into the CEA for landscape and visual Viewpoint D: Minor road near Newton Southeast View	MAR-GEN-ENV-MAP-WSP-000591	Within the key	Indicative, Onshore Substations, 30.75m
EIA Report Volume 3, Appendix 27.2: Viewpoint Assessment Part 1	MAR-GEN-ENV-REP-WSP-000157	Table 1.1 Maximum geographical extent for significant effects of onshore infrastructure elements resulting from viewpoint analysis	Onshore substations (Southern Block parameter maximum design parameter height 30.75m): the likely maximum geographical extent for significant visual effects is approximately <1.5km distance from the onshore substations as illustrated by Viewpoints 1-7 (Figures 1-7).
	MAR-GEN-ENV-MAP-WSP-000407	Volume 3, Appendix 27.2, Figure 5d Viewpoint 5: Downiehills Cottage Southwest View Within the key	Indicative, Onshore Substations, 30.75m
	MAR-GEN-ENV-MAP-WSP-000409	Volume 3, Appendix 27.2, Figure 6b Viewpoint 6: Toddlehills near quarry Northeast View Within the key	Indicative, Onshore Substations, 30.75m
	MAR-GEN-ENV-MAP-WSP-000410	Volume 3, Appendix 27.2, Figure 7 Viewpoint 7: Cowsrieve Northwest View Within the key	Indicative, Onshore Substations, 30.75m
	MAR-GEN-ENV-MAP-WSP-000411	Volume 3, Appendix 27.2, Figure 8b Viewpoint 8: Formartine Buchan Way near Easterton Cottages Southeast View Within the key	Indicative, Onshore Substations, 30.75m Indicative, Onshore Substations, 30.75m (Screened)
EIA Report Volume 3, Appendix 27.2: Viewpoint Assessment Part 2	MAR-GEN-ENV-MAP-WSP-000412	Volume 3, Appendix 27.2, Figure 9 Viewpoint 9: A90 near Meg's Moss Northwest View Within the key	Indicative, Onshore Substations, 30.75m (Screened)
	MAR-GEN-ENV-MAP-WSP-000413	Volume 3, Appendix 27.2, Figure 10 Viewpoint 10: A950 near Flushing East View Within the key	Indicative, Onshore Substations, 30.75m (Screened)
	MAR-GEN-ENV-MAP-WSP-000414	Volume 3, Appendix 27.2, Figure 11 Viewpoint 11: Upper Savock Northeast View Within the key	Indicative, Onshore Substations, 30.75m Indicative, Onshore Substations, 30.75m (Screened)
	MAR-GEN-ENV-MAP-WSP-000415	Volume 3, Appendix 27.2, Figure 12a Viewpoint 12: A90 junction at Hallmoss Southwest View Within the key	Indicative, Onshore Substations, 30.75m (Screened)
	MAR-GEN-ENV-MAP-WSP-000416	Volume 3, Appendix 27.2, Figure 13b Viewpoint 13: Minor road near Kincairn South View Within the key	Indicative, Onshore Substations, 30.75m Indicative, Onshore Substations, 30.75m (Screened)
	MAR-GEN-ENV-MAP-WSP-000417	Volume 3, Appendix 27.2, Figure 14 Viewpoint 14: Reform Tower Northwest View Within the key	Indicative, Onshore Substations, 30.75m
	MAR-GEN-ENV-MAP-WSP-000420	Volume 3, Appendix 27.2, Figure 17 Viewpoint 17: Minor road near Newton Southeast View Within the key	Indicative, Onshore Substations, 30.75m
EIA Report Volume 3, Appendix 27.3: Residential Visual Amenity Assessment	MAR-GEN-ENV-REP-WSP-000158	Section 1.2.1.6 Table 1.3	Assessment references a maximum substation height of 30.75m and discusses visibility and screening of the southern block.
EIA Report Volume 1, Chapter 31: Civil and Military Aviation	MAR-GEN-ENV-REP-WSP-000036	Table 31.6 Maximum design scenario for impacts on civil and military aviation. Impact C2: Impacts of onshore infrastructure on civil and military aviation and Impact D2: Impacts of onshore infrastructure on civil and military aviation.	Three onshore substations up to 30m in height.
EIA Report Volume 1, Chapter 31: Civil and Military Aviation	MAR-GEN-ENV-REP-WSP-000036	31.10.3 Impact O2: impacts of onshore infrastructure on civil and military aviation, paragraph 31.10.3.2	The onshore substation site infrastructure would include buildings of up to 30m in height and would be approximately 1km south of Longside Airfield. Obstacles at this location would be unlikely to have any impact on operations at Longside Airfield. Other onshore infrastructure such as onshore export cables would be buried below the surface.
Onshore Design and Access Statement	MAR-GEN-PMG-REP-WSP-000080	Section 4.8.5.5 Table 4.3	Maximum building height for HVDC electrical infrastructure stated as up to 30m.

Figures



Note: This drawing illustrates a computer generated Zone of Theoretical Visibility (ZTV) for the onshore substation (maximum design scenario envelope Northern and Southern Blocks).

The areas shown in coloured shading (identified on the key) indicate the maximum theoretical visibility of the onshore substation based on a height of 18.25m (maximum design scenario envelope Northern Block), and 23.75m (maximum design scenario envelope Southern Block), using OS Terrain 5 data amended to AOD 48.37m and 52.82m within the Northern and Southern Blocks respectively.

Vector data for existing buildings (8m height) and the main areas of existing woodland (12m) has been used to exclude these features from the ZTV.

The ZTV includes an adjustment that allows for the Curvature and Light Refraction of the Earth.

- Red Line Boundary
- 2km RLB Study Area
- 5km Substation Study Area
- 1km buffers
- Maximum design scenario envelope Northern Block (18.25m)
- Maximum design scenario envelope Southern Block (23.75m)
- Zone of theoretical visibility for maximum design scenario envelope Northern Block (18.25m)
- Zone of theoretical visibility for maximum design scenario envelope Southern Block (23.75m)
- Zone of theoretical visibility for maximum design scenario envelope Northern and Southern Blocks (18.25m and 23.75m)
- Viewpoints

1) A950 track to Downiehills
2) Minor road south of Forehill House
3) Minor road east of Stockbridge
4) A950 junction to Longside airfield
5) Downieshill Cottage
6) Toddlehills near quarry
7) Cowsrieve
8) Formartine Buchan Way, near Easterton Cottages
9) A90 near Meg's Moss
10) A950, near Flushing
11) Upper Savock
12) A90 junction at Hallmoss
13) Minor road near Kincairn
14) Reform Tower
15) Core Path, Craigewan
16) Core Path, Peterhead Golf Club
17) Minor road near Newton
18) A90 layby near Cuttie Burn
19) A90 near Inverquinzie Cotts
20) St Fergus Links
21) Minor road near South Scotston
22) St Fergus Links near Scotstown Beach

0 1 2 Kilometres

REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER
5	17/09/2026	SS	LT	SV	NC

WSP DRAWING NUMBER	808368-WEIS-IA-E5-FG-L4-23689
MarramWind DRAWING NUMBER	MAR-GEN-HSE-DRG-WSP-000347
DATUM	OSGB 1936
PROJECTION	British National Grid
SCALE	1:50,000
PAGE SIZE	A3

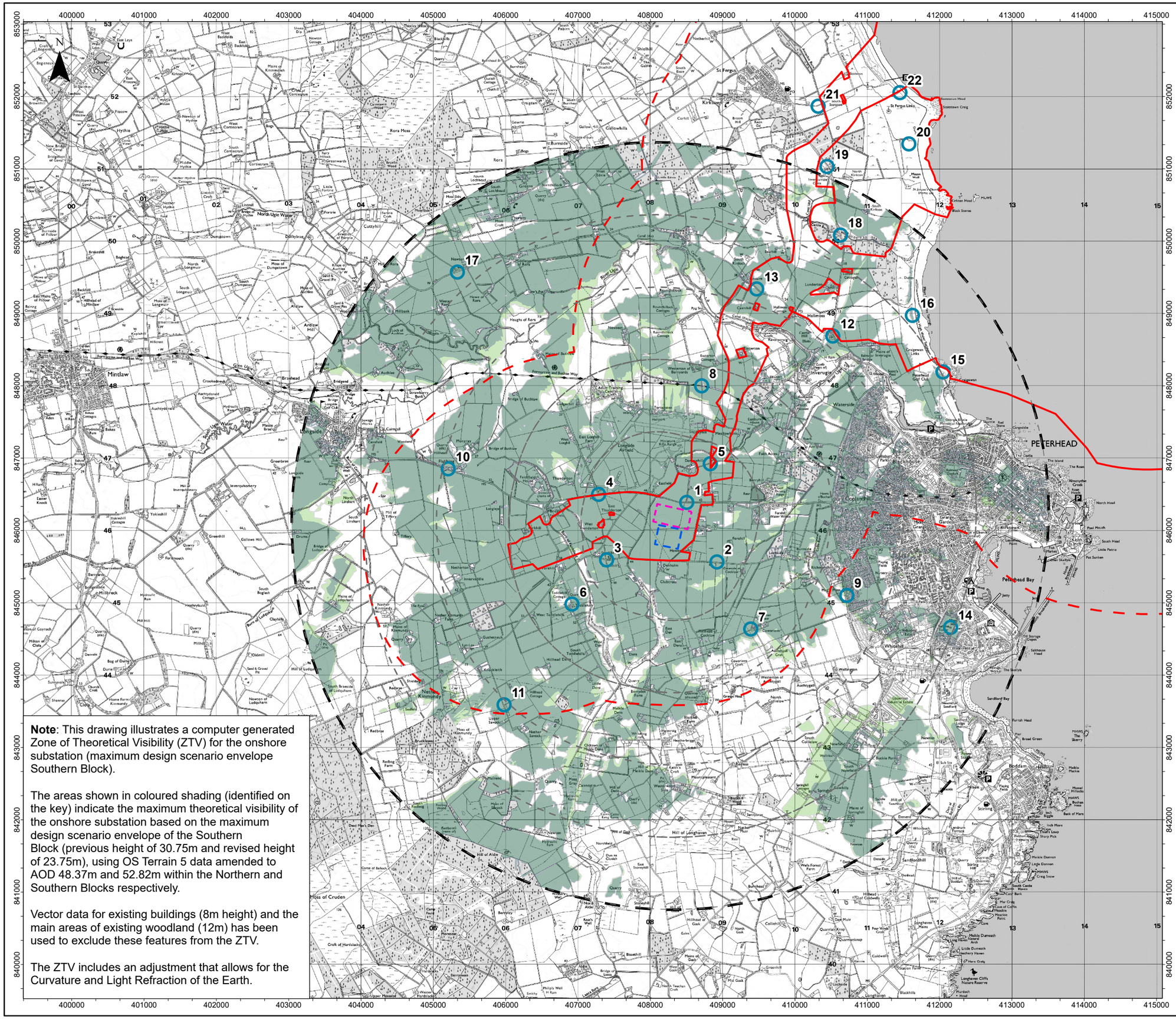
PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE
Figure A27.2a Zone of Theoretical Visibility of onshore substations
Sheet 1: Zone of Theoretical Visibility of onshore substations

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wsp MarramWind



Red Line Boundary
2km RLB Study Area
5km Substation Study Area
1km buffers
Maximum design scenario envelope Northern Block (18.25m)
Maximum design scenario envelope Southern Block (30.75m)

Comparative Zone of Theoretical Visibility, comparing the following:

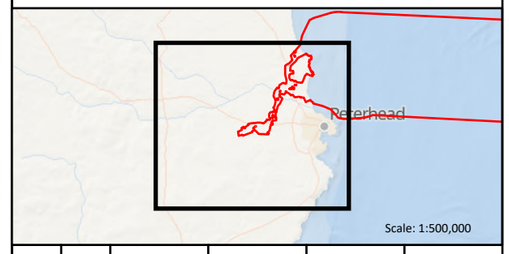
Zone of theoretical visibility for maximum design scenario envelope Southern Block (23.75m)

Zone of theoretical visibility for maximum design scenario envelope Southern Block (30.75m)

Viewpoints

1) A950 track to Downiehills
2) Minor road south of Forehill House
3) Minor road east of Stockbridge
4) A950 junction to Longside airfield
5) Downieshill Cottage
6) Toddlehills near quarry
7) Cowsrieve
8) Formartine Buchan Way, near Easterton Cottages
9) A90 near Meg's Moss
10) A950, near Flushing
11) Upper Savock
12) A90 junction at Hallmoss
13) Minor road near Kincairn
14) Reform Tower
15) Core Path, Craigewan
16) Core Path, Peterhead Golf Club
17) Minor road near Newton
18) A90 layby near Cuttie Burn
19) A90 near Inverquinzie Cotts
20) St Fergus Links
21) Minor road near South Scotston
22) St Fergus Links near Scotstown Beach

0 1 2 Kilometres



REV	REV DATE	GIS CREATOR	GIS REVIEWER	TECHNICAL CHECKER	TECHNICAL APPROVER
5	17/09/2026	SS	LT	SV	NC

WSP DRAWING NUMBER	808368-WEIS-IA-E5-FG-L4-23689
MarramWind DRAWING NUMBER	MAR-GEN-HSE-DRG-WSP-000347
DATUM	OSGB 1936
PROJECTION	British National Grid
SCALE	1:50,000
PAGE SIZE	A3

PROJECT TITLE
MarramWind Offshore Wind Farm

DRAWING TITLE
Figure A27.2a Zone of Theoretical Visibility of onshore substations
Sheet 2: Comparative Zone of Theoretical Visibility of the maximum design scenario envelope of the Southern Block (30.75m and 23.75m)

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wsp MarramWind





N

0 km 0.5 km 1 km 1.5 km 2 km

Scale 1:5,000

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Photograph Parameters Viewpoint 3:

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Correct printed image size:	820 x 260mm	Date and time:	30/06/2025 11:45

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

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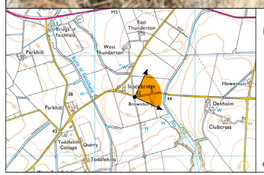
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Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

Figure A27.2.3a
Onshore Substation
Viewpoint 3: Stockbridge east
Existing View

MarramWind wsp





N

0 km 0.5 km 1 km 1.5 km 2 km

Scale 1:5,000

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Photograph Parameters Viewpoint 3:

Location grid reference:	E407 395, N845 592	Distance:	707m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	30/06/2025 11:45

Indicative details regarding Proposed Development montage:

Building Height of HVDC 30.75m
AoD Height of HVDC 83.567m
Vegetation screening

Building Colour:
Building: RAL 7015 Slate Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

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Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

Figure A27.2.3b
Onshore Substation
Viewpoint 3: Stockbridge east
Photomontage: Original Design

MarramWind wsp

Potential further mitigation planting would partially screen the Proposed Development

View flat at a comfortable arm's length



N

0 km 0.5 km 1 km 1.5 km 2 km

Scale 1:5,000

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Photograph Parameters Viewpoint 3:

Location grid reference:	E407 395, N845 592	Distance:	707m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	30/06/2025 11:45

Indicative details regarding Proposed Development montage:

Building Height of HVDC 30.75m
AoD Height of HVDC 83.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

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MarramWind Offshore Wind Farm

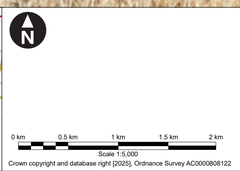
Figure A27.2.3c
Onshore Substation
Viewpoint 3: Stockbridge east
Photomontage: Option A

MarramWind wsp

Potential further mitigation planting would partially screen the Proposed Development

View flat at a comfortable arm's length





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Photograph Parameters Viewpoint 3:

Location grid reference:	E407 395, N845 592	Distance:	707m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
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Correct printed image size:	820 x 260mm	Date and time:	30/06/2025 11:45

Indicative details regarding Proposed Development montage:

Building Height of HVDC 26.75m
AoD Height of HVDC 79.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

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TYPE 4 VISUALISATION

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Drawn By:	BRYCC
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Drawn Date:	21/08/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

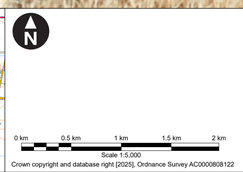
Figure A27.2.3d
Onshore Substation
Viewpoint 3: Stockbridge east
Photomontage: Option B

MarramWind wsp

Potential further mitigation planting would partially screen the Proposed Development

View flat at a comfortable arm's length





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Photograph Parameters Viewpoint 3:

Location grid reference:	E407 395, N845 592	Distance:	707m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
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Correct printed image size:	820 x 260mm	Date and time:	30/06/2025 11:45

Indicative details regarding Proposed Development montage:

Building Height of HVDC 23.75m
AoD Height of HVDC 76.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

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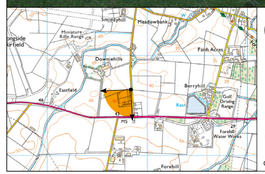
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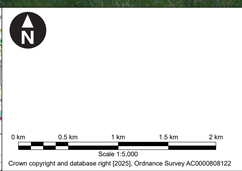
MarramWind Offshore Wind Farm

Figure A27.2.3e
Onshore Substation
Viewpoint 3: Stockbridge east
Photomontage: Option C

MarramWind wsp







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Photograph Parameters Viewpoint 5:

Location grid reference:	E408 829, N846 921	Distance to Cable Corridor:	49m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
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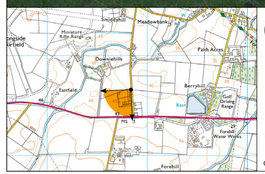
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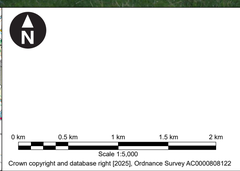
MarramWind Offshore Wind Farm

Figure A27.2.5a
Onshore Cable Corridor
Viewpoint 5: Downieshill Cottage
Existing View

MarramWind wsp







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Photograph Parameters Viewpoint 5:

Location grid reference:	E408 829, N846 921	Distance to Cable Corridor:	49m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5º (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	17/10/2023 08:50

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative locations of the onshore elements of the Proposed Development

- Indicative, Phase 1 substation compound extents
- Indicative, Phase 1 substation compound extents (Screened)
- Indicative, Phase 2 substation compound extents
- Indicative, Phase 2 substation compound extents (Screened)
- Indicative, Phase 3 substation compound extents
- Indicative, Phase 3 substation compound extents (Screened)

100% Enlargement

TYPE 4 VISUALISATION

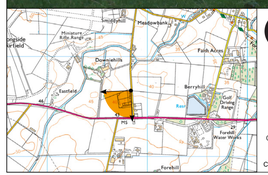
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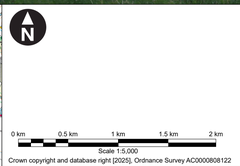
MarramWind Offshore Wind Farm

Figure A27.2.5b
Onshore Cable Corridor
Viewpoint 5: Downieshill Cottage
Wireline

MarramWind wsp

View flat at a comfortable arm's length





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Photograph Parameters Viewpoint 5:

Location grid reference:	E408 829, N846 921	Distance to Cable Corridor:	49m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	17/10/2023 08:50

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative details regarding Proposed Development montage:

Building Height of HVDC 30.75m
AoD Height of HVDC 83.567m
Vegetation screening

Building Colour:
Building: RAL 7015 Slate Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

100% Enlargement

TYPE 4 VISUALISATION

Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

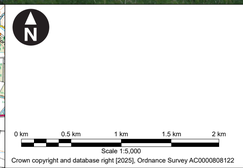
Figure A27.2.5c
Onshore Cable Corridor
Viewpoint 5: Downieshill Cottage
Photomontage: Original Design

MarramWind wsp

Potential further mitigation planting would fully screen the Proposed Development

View flat at a comfortable arm's length





Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 5:

Location grid reference:	E408 829, N846 921	Distance to Cable Corridor:	49m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	17/10/2023 08:50

Indicative details regarding Proposed Development montage:

Building Height of HVDC 30.75m
AoD Height of HVDC 83.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

100% Enlargement

TYPE 4 VISUALISATION

Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

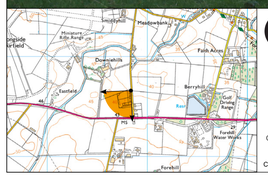
MarramWind Offshore Wind Farm

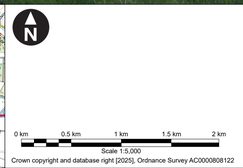
Figure A27.2.5d
Onshore Cable Corridor
Viewpoint 5: Downieshill Cottage
Photomontage: Option A

MarramWind wsp

Potential further mitigation planting would fully screen the Proposed Development

View flat at a comfortable arm's length





Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 5:

Location grid reference:	E408 829, N846 921	Distance to Cable Corridor:	49m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	17/10/2023 08:50

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative details regarding Proposed Development montage:

Building Height of HVDC 26.75m
AoD Height of HVDC 79.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

100% Enlargement

TYPE 4 VISUALISATION

Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

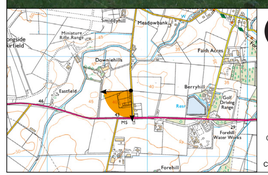
MarramWind Offshore Wind Farm

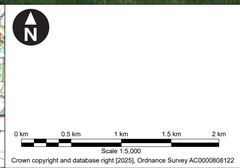
Figure A27.2.5e
Onshore Cable Corridor
Viewpoint 5: Downieshill Cottage
Photomontage: Option B

MarramWind wsp

Potential further mitigation planting would fully screen the Proposed Development

View flat at a comfortable arm's length





Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 5:

Location grid reference:	E408 829, N846 921	Distance to Cable Corridor:	49m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	17/10/2023 08:50

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative details regarding Proposed Development montage:

Building Height of HVDC 23.75m
AoD Height of HVDC 76.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

100% Enlargement

TYPE 4 VISUALISATION

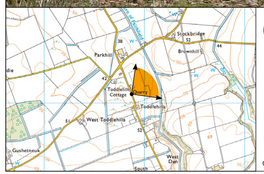
Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

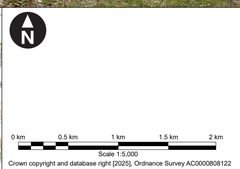
MarramWind Offshore Wind Farm

Figure A27.2.5f
Onshore Cable Corridor
Viewpoint 5: Downieshill Cottage
Photomontage: Option C

MarramWind wsp







Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 6:

Location grid reference:	E406 916, N844 981	Distance to Cable Corridor:	775m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	17/10/2023 14:05

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

100% Enlargement

TYPE 1 VISUALISATION

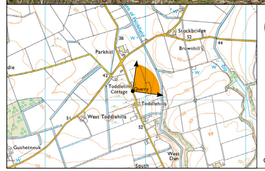
Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

Figure A27.2.6a
Onshore Cable Corridor
Viewpoint 6: Toddlehills (quarry)
Existing View

MarramWind wsp





N

0 km 0.5 km 1 km 1.5 km 2 km

Scale 1:5,000

Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 6:

Location grid reference:	E406 916, N844 981	Distance to Cable Corridor:	775m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	17/10/2023 14:05

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative locations of the onshore elements of the Proposed Development

- Indicative, Phase 1 substation compound extents
- Indicative, Phase 2 substation compound extents
- Indicative, Phase 2 substation compound extents (Screened)
- Indicative, Phase 3 substation compound extents

100% Enlargement

TYPE 1 VISUALISATION

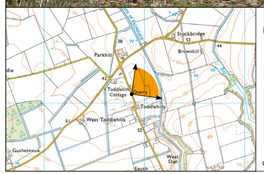
Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

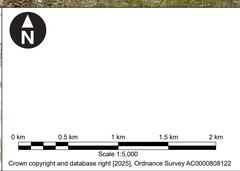
MarramWind Offshore Wind Farm

Figure A27.2.6b
Onshore Cable Corridor
Viewpoint 6: Toddlehills (quarry)
Wireline

MarramWind wsp







Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 6:

Location grid reference:	E406 916, N844 981	Distance to Cable Corridor:	775m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5º (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	17/10/2023 14:05

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative details regarding Proposed Development montage:

Building Height of HVDC 30.75m
AoD Height of HVDC 83.567m
Vegetation screening

Building Colour:
Building: RAL 7015 Slate Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

100% Enlargement

TYPE 4 VISUALISATION

Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

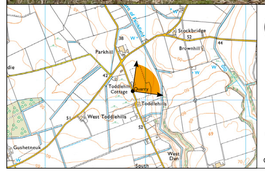
Figure A27.2.6c
Onshore Cable Corridor
Viewpoint 6: Toddlehills (quarry)
Photomontage: Original Design

MarramWind wsp

Potential further mitigation planting would be visible in the midground

View flat at a comfortable arm's length





0 km 0.5 km 1 km 1.5 km 2 km

Scale 1:5,000

Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 6:

Location grid reference:	E406 916, N844 981	Distance to Cable Corridor:	775m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5º (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	17/10/2023 14:05

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative details regarding Proposed Development montage:

Building Height of HVDC 30.75m
AoD Height of HVDC 83.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

100% Enlargement

TYPE 4 VISUALISATION

Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

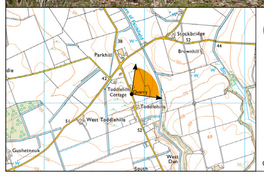
Figure A27.2.6d
Onshore Cable Corridor
Viewpoint 6: Toddlehills (quarry)
Photomontage: Option A

MarramWind wsp

Potential further mitigation planting would be visible in the midground

View flat at a comfortable arm's length





0 km 0.5 km 1 km 1.5 km 2 km

Scale 1:5,000

Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 6:

Location grid reference:	E406 916, N844 981	Distance to Cable Corridor:	775m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5º (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	17/10/2023 14:05

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative details regarding Proposed Development montage:

Building Height of HVDC 26.75m
AoD Height of HVDC 79.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

100% Enlargement

TYPE 4 VISUALISATION

Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

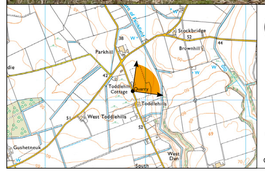
Figure A27.2.6e
Onshore Cable Corridor
Viewpoint 6: Toddlehills (quarry)
Photomontage: Option B

MarramWind wsp

Potential further mitigation planting would be visible in the midground

View flat at a comfortable arm's length





0 km 0.5 km 1 km 1.5 km 2 km

Scale 1:5,000

Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 6:

Location grid reference:	E406 916, N844 981	Distance to Cable Corridor:	775m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	17/10/2023 14:05

Indicative details regarding Proposed Development montage:

Building Height of HVDC 23.75m
AoD Height of HVDC 76.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

100% Enlargement

TYPE 4 VISUALISATION

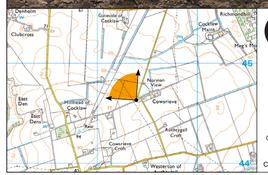
Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	21/08/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

Figure A27.2.6f
Onshore Cable Corridor
Viewpoint 6: Toddlehills (quarry)
Photomontage: Option C

MarramWind wsp

View flat at a comfortable arm's length



Crown copyright and database right [2025], Ordnance Survey AC0000808122

0 km 0.5 km 1 km 1.5 km 2 km

Scale 1:5,000

Photograph Parameters Viewpoint 7:

Location grid reference:	E409 388, N844 637	Distance to Cable Corridor:	1,493m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	30/04/2024 09:45

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

100% Enlargement

TYPE 1 VISUALISATION

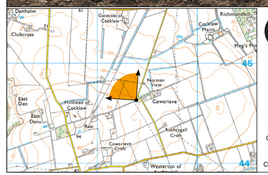
Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	07/09/2026
Status:	REVIEW

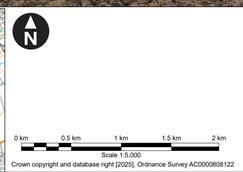
MarramWind Offshore Wind Farm

Figure A27.2.7a
Onshore Cable Corridor
Viewpoint 7: Cowsrieve
Existing View

MarramWind wsp

View flat at a comfortable arm's length





Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 7:

Location grid reference:	E409 388, N844 637	Distance to Cable Corridor:	1,493m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	30/04/2024 09:45

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative locations of the onshore elements of the Proposed Development

- Indicative, Phase 1 substation compound extents
- Indicative, Phase 2 substation compound extents
- Indicative, Phase 3 substation compound extents

100% Enlargement

TYPE 1 VISUALISATION

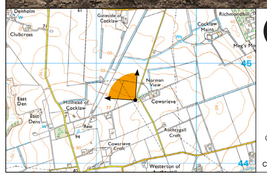
Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	07/09/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

Figure A27.2.7b
Onshore Cable Corridor
Viewpoint 7: Cowsrieve Wireline

MarramWind wsp

View flat at a comfortable arm's length



Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 7:

Location grid reference:	E409 388, N844 637	Distance to Cable Corridor:	1,493m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	30/04/2024 09:45

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative details regarding Proposed Development montage:

Building Height of HVDC 30.75m
AoD Height of HVDC 83.567m
Vegetation screening

Building Colour:
Building: RAL 7015 Slate Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

100% Enlargement

TYPE 4 VISUALISATION

Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	07/09/2026
Status:	REVIEW

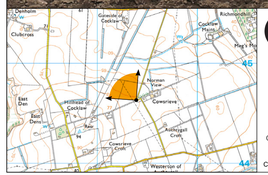
MarramWind Offshore Wind Farm

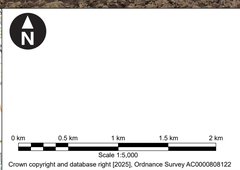
Figure A27.2.7c
Onshore Cable Corridor
Viewpoint 7: Cowsrieve
Photomontage: Original Design

MarramWind wsp

Potential further mitigation planting would partially screen the Proposed Development

View flat at a comfortable arm's length





Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 7:

Location grid reference:	E409 388, N844 637	Distance to Cable Corridor:	1,493m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	30/04/2024 09:45

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative details regarding Proposed Development montage:

Building Height of HVDC 30.75m
AoD Height of HVDC 83.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

100% Enlargement

TYPE 4 VISUALISATION

Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	07/09/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

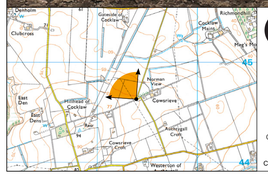
Figure A27.2.7d
Onshore Cable Corridor
Viewpoint 7: Cowsrieve
Photomontage: Option A

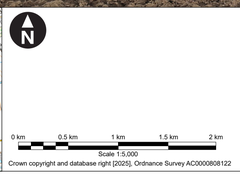
MarramWind wsp

MAR-GEN-HSE-DRG-WSP-000615 P05

Potential further mitigation planting would partially screen the Proposed Development

View flat at a comfortable arm's length





Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 7:

Location grid reference:	E409 388, N844 637	Distance to Cable Corridor:	1,493m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	30/04/2024 09:45

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative details regarding Proposed Development montage:

Building Height of HVDC 26.75m
AoD Height of HVDC 79.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

100% Enlargement

TYPE 4 VISUALISATION

Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	07/09/2026
Status:	REVIEW

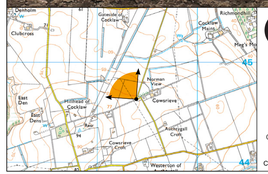
MarramWind Offshore Wind Farm

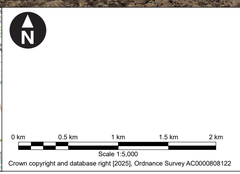
Figure A27.2.7e
Onshore Cable Corridor
Viewpoint 7: Cowsrieve
Photomontage: Option B

MarramWind wsp

Potential further mitigation planting would partially screen the Proposed Development

View flat at a comfortable arm's length





Crown copyright and database right [2025], Ordnance Survey AC0000808122

Photograph Parameters Viewpoint 7:

Location grid reference:	E409 388, N844 637	Distance to Cable Corridor:	1,493m
GPS location accuracy:	+/- 3m	Camera:	Canon EOS 5D Mk2
Horizontal field of view:	53.5° (planar projection)	Lens:	50mm (Canon EF 50mm f/1.8)
Paper size:	841mm x 297mm (½ A1)	Camera height:	1.5m AGL
Correct printed image size:	820 x 260mm	Date and time:	30/04/2024 09:45

Note: Figure produced to accord with the Landscape Institute's Technical Guidance Note 6/19: Visual Representation of Development Proposals.

Indicative details regarding Proposed Development montage:

Building Height of HVDC 23.75m
AoD Height of HVDC 76.567m
Vegetation screening including 1m bunding

Building Colour:
Building: RAL 7009 Green Grey
Roof: RAL 7033 Cement Grey
Accent: RAL 8016 Mahogany Brown

100% Enlargement

TYPE 4 VISUALISATION

Company:	WSP
Drawn By:	BRYCC
Chk/Aprvd:	RYLOR
Drawn Date:	07/09/2026
Status:	REVIEW

MarramWind Offshore Wind Farm

Figure A27.2.7f
Onshore Cable Corridor
Viewpoint 7: Cowsrieve
Photomontage: Option C

MarramWind wsp

MarramWind