Code: UKCAL-CWF-CON-EIA-RPT-00007-7A02

Volume 7A Overview Chapter Appendices

Appendix 6-1 Landfall Appraisal RAG Criteria

Caledonia Offshore Wind Farm Ltd

5th Floor Atria One, 144 Morrison Street, Edinburgh, EH3 8EX

OW
OCEAN WINDS

Volume 7A Appendix 6-1 Landfall Appraisal RAG Criteria

Code	UKCAL-CWF-CON-EIA-RPT-00007-7A02
Revision	Issued
Date	18 October 2024

Table of Contents

List of Tables

Acronyms and Abbreviations

HDD	Horizontal Directional Drilling
MHWS	Mean High Water Spring
RAG	Red Amber Green
SAC	Special Areas of Conservation
SPA	Special Protection Areas
SSSI	Site of Special Scientific Interest

1 Criteria for RAG Assessment

1.1.1.1 Each landfall area was considered as part of a Red Amber Green (RAG) assessment. This approach allows for efficient comparison of a large number of sites. RAG assessments are an assessment tool frequently used to assess potential risks of proposed development options.

1.1.1.2 Each criteria used was given a score of Red, Amber or Green indicating the adverse or positive impacts on the landfall location. It should be noted that a red score did not necessarily preclude the landfall location from being considered, it just indicates that other landfall locations may perform better within those criteria.

1.1.1.3 The findings of the high-level desk-based review of available information have been used to inform the RAG assessment. The criteria considered as part of the RAG assessment include:

- coastal topography;
- geology and ground conditions;
- coastal erosion;
- suitability for open cut/trench;
- suitability for Horizontal Directional Drilling (HDD);
- suitability for onshore area;
- natural heritage and the water environment;
- cultural heritage;
- people and land use; and
- planning designations and considerations.

1.1.1.4 Table 1-1 presents the criteria used for the RAG assessment.

Table 1-1: RAG Criteria Used for Landfall Appraisal

Topic	Favourable scenario (Green)	Less Favourable scenario (Amber)	Unfavourable scenario (Red)
Ground Conditions and Topography			
Suitability of Ground Conditions for Open Cut/Trench at Landfall	▪ Level coastal topography such as a beach and flat backshore area. Absence of coastal cliff/slope; and ▪ Anticipated easy excavation in superficial material.	The site has TWO or more constraints/characteristics which make it less favourable: ▪ Coastline vulnerable to erosion, and future coastal regression is predicted; ▪ Shallow rock is shown on the superficial geology map, or a rocky coastal platform is visible on aerial imagery (poor excavatability); ▪ A coastal road is present at the landfall point, which would be disrupted by trenching works; and ▪ Potentially complex coastal topography such as sand dunes within the backshore area, or a low/shallow coastal slope (but not a cliff).	▪ The site has challenging topography such as coastal cliffs which would impact the feasibilty/constructability of a direct-trenched option; and ▪ Shallow rock is shown on the superficial geology map, or a rocky coastal platform is visible on aerial imagery (poor excavatability).
Suitability of Ground Conditions for HDD at Landfall	The HDD will be drilled within rock, AND all of the following conditions are met: ▪ The geological map does not show the rock to be impacting by significant faulting or shearing	The site has ONE of the following constraints/characteristics which make it less favourable: ▪ Part of the HDD drive is anticipated to be within sand/gravel;	The site has TWO or more of the following adverse characteristics: ▪ Part of the HDD drive is anticipated to be within sand/gravel; ▪ The geological map shows the rock to be impacted by faulting or shearing;

Topic	Favourable scenario (Green)	Less Favourable scenario (Amber)	Unfavourable scenario (Red)
	(which would increase the potential for fluid loss during drilling)[i]; ▪ The geological map does not show bedded/sedimentary rock (generally considered to present an increased potential for fluid loss during drilling, compared to igneous and metamorphic rock types which are less likely to contain bedding-related discontinuities); and ▪ The geological map does not show a high degree of lithological variability (potential for variation in material strength/hardness which could impact on HDD works).	▪ The geological map shows the rock to be impacted by faulting or shearing; ▪ The geological map shows high degree of lithological variability at the landfall site; and ▪ The geological map shows sedimentary bedrock.	▪ The geological map shows high degree of lithological variability at the landfall site; and ▪ The geological map shows sedimentary bedrock.
Access			
Access for Cable Vessels / Barges	▪ 10m water depth <1km from Mean High Water Springs (MHWS); and ▪ No nearshore obstructions such as shipwrecks.	The site has any of the following adverse characteristics: ▪ Nearshore obstructions such as shipwrecks; ▪ Distance to 10m water depth is unknown; and ▪ Distance to 10m water depth is 1km-2km from MHWS.	▪ 10m water depth is >2km from MHWS.

[i] other discontinuities and unrecorded faults may still be present within the rock mass

Topic	Favourable scenario (Green)	Less Favourable scenario (Amber)	Unfavourable scenario (Red)
Access to Onshore Area and availability of space for Transition Joint Bay and 100m wide corridor	The site has THREE or more of the following beneficial characteristics: ▪ Landfall point is <200m from an existing road or track; ▪ There is evidence of an existing road or track <200m from the landfall point which has been currently/recently used for haulage or construction traffic; ▪ There are no immediate constraints at the landfall point which would limit the space available onshore for a compound. such as residential properties; and ▪ There is an existing area of hardstanding such as a car park in close proximity to the landfall point.	Landfall point is 200m-500m from an existing road or track, AND the site has one of the following beneficial characteristics: ▪ There is evidence of an existing road or track 200m-500m from the landfall point which has been currently/recently used for haulage or construction traffic; ▪ There are no immediate constraints at the landfall point which would limit the space available onshore for a compound; and ▪ There is an existing area of hardstanding such as a car park in close proximity to the landfall point.	The site is >500m from the nearest road or track
Access to Shoreline / Intertidal area for Trenching	There is evidence of an existing road or slipway which could be used to provide plant/vehicle access onto the shoreline.	There is no evidence of an existing access point to the shoreline, however the topography is suitable for an access point for plant/vehicles to be created without too many technical issues	There is no current access point onto the shoreline for plant/vehicles and creation of ssuch an access point it likely to be technical chgallenging due to coastal cliffs
Environment and Consents			

Topic	Favourable scenario (Green)	Less Favourable scenario (Amber)	Unfavourable scenario (Red)
Natural Heritage and Water Environment	▪ The site is >500m from internationally, nationally and locally protected sites such as Special Protection Areas (SPA), Special Areas of Conservation (SAC), Site of Special Scientific Interest (SSSI), RAMSAR and ancient woodland; and ▪ No fluvial flood risk.	▪ The site is <500m from from internationally, nationally and locally protected sites such as SPA, SAC, SSSI, RAMSAR and ancient woodland; and ▪ The site is <500m from an area of high fluvial flood risk.	▪ The site lies within a internationally, nationally and locally designated site such as SPA, SAC, SSSI, RAMSAR and could be subject to direct / unnaceptable impact; ▪ The site directly impacts ancient woodland; and ▪ The site is <50m from an area of high fluvial flood risk.
Cultural Heritage	▪ The site is >500m from National and Regional Designations (Scheduled Monument, Listed Buildings, Conservation Area).	▪ The site is<500m from National and Regional Designations (Scheduled Monument, Listed Buildings, Conservation Area).	▪ The site lies within National Designations (Scheduled Monument, Listed Buildings, Conservation Area); and ▪ The site lies within Regional Designations (Listed Buildings, Conservation Area).
People / Land Use	▪ No conflict with existing infrastructure; ▪ No residential properties within 250m; ▪ No sensitive land uses (such as schools, recreational areas and hospitals) within 250m; and ▪ No Core Paths / Recreational Routes within 250m.	▪ Close proximity to existing infrastructure (<250m); ▪ Properties located within close proximity (<250m); ▪ Sensitive land uses (such as chools, recreational areas and hospitals) within close proximity (<250m); and ▪ Core Paths / Recreational Routes in close proximity (<250m) or crossing site.	▪ Conflict with existing infrastructure (cabling / pipelines); ▪ Residential and commercial properties within 50m; and ▪ Sensitive land uses (such as schools, recreational areas and hospitals) within 50m.
Planning	▪ No conflict with permitted planning applications; and ▪ No conflict with adopted/proposed planning allocations.	▪ Potential conflict with permitted planning applications; and	▪ Direct conflict with permitted planning applications.

Topic	Favourable scenario (Green)	Less Favourable scenario (Amber)	Unfavourable scenario (Red)
		▪ Potential conflict with adopted/proposed planning allocations	▪ Direct conflict with adopted/proposed planning allocations.
Cable Crossing	▪ No cable crossing required.	▪ One or more cable will be crossed.	▪ N/A.

Caledonia Offshore Wind Farm
5th Floor, Atria One
144 Morrison Street
Edinburgh
EH3 8EX

www.caledoniaoffshorewind.com

OCEAN WINDS