

Rampion 2 Wind Farm

Category 6:

Environmental Statement

Volume 4, Appendix 4.3:

Proposed Development Parameters (clean)

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Revision B

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Document revisions

Revision	Date	Status/reason for issue	Author	Checked by	Approved by
A	04/08/2023	Final for DCO Application	WSP	RED	RED
B	01/08/2024	Update to substation parameters to m AOD in line with draft DCO and correction of errata.	WSP	RED	RED

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1. Proposed Development Parameters

1.1.1 This Appendix provides a summary of the parameters that are detailed in [Table 4.2](#) to [Table 4.27](#) in [Chapter 4: The Proposed Development, Volume 2](#) of the Environmental Statement (Document Reference 6.2.4).

Table 1-1 Proposed Development assessment Parameters

Parameter	Value
WTG maximum design parameters	
Maximum number of WTG	90 (for smaller WTG type)
Rotor diameter	295m (for larger WTG type)
Minimum air gap above Mean High Water Springs (MHWS)	22m (for both WTG types)
Maximum blade tip height above Lowest Astronomical Tide (LAT)	325m (for larger WTG type)
Minimum turbine spacing	830m (for both WTG types)
Maximum WTG monopile foundation parameters	
Diameter of monopile	13.5m (for larger WTG type)
Total number of structures	Up to 90 WTGs (for smaller WTG type)
Maximum WTG multi-leg foundation with pin piles foundation parameters	
Number of legs per multi-leg foundation	Up to 4 (for both WTG types)
Number of pin piles per multi-leg foundation	Up to 4 (for both WTG types)
Pin pile diameter	Up to 4.5m (for larger WTG type)
Maximum WTG multi-leg foundation with suction buckets foundation parameters	
Number of legs per WTG	Up to 4 (for both WTG types)
Suction bucket diameter	Up to 15m (for both WTG types)
Scour protection volume (WTG project total maximum)	1,215,000 m ³
Area of seabed take including scour protection (WTG project total maximum)	405,000 m ²

Parameter	Value
Maximum offshore substation parameters	
Maximum number of offshore substations	Up to 3
Topside: main structure length and width	80m x 50m
Topside: height (excluding helideck or lightning protection) T	65m above LAT
Height of lightning protection & ancillary structures	115m above LAT
Diameter of monopile	13.5m
Number of legs per multi-leg foundation (Substation)	Up to 6
Number of pin piles per multi-leg foundation (Substation)	Up to 12
Pin pile diameter	Up to 4.5m
Scour protection volume (3 substations)	65,700m ³
Maximum array cable parameters	
Total length of array cables	250km
Maximum offshore interconnector cable parameters	
Number of cables	2
Total cable length	40km
Maximum export cable assessment parameters	
Number of high voltage alternating current (HVAC) offshore cables	4
Total length of export cables	170km
Maximum array cable installation parameters	
Cable protection area	300,000m ²
Cable protection volume	175,000m ³
Number of crossings (estimate)	4
Cable/pipe crossings: total impacted area	10,000m ²

Parameter	Value
Cable/pipe crossings: pre-lay rock berm volume	10,000m ³
Cable/pipe crossings: post-lay rock berm volume	10,000m ³
Maximum offshore interconnector cable installation parameters	
Cable protection area	122,000m ³
Cable protection volume	110,500m ³
Maximum export cable installation parameters	
Cable protection area	517,000m ²
Cable protection volume	470,000m ³
Maximum export cable landfall parameters	
Number of HDD drills	Up to four
Number of transition joint bays	Up to four
HDD cable ducts	Up to four
HDD exit pits number	Up to four
Maximum onshore cable corridor parameters	
Corridor width: temporary (construction corridor width)	Up to 40m ¹
Joint Bay, Link Box and Fibre Optic Cable Junction Box design parameters	
Number of JB locations	Up to 66
Number of JBs per location	Up to 4
Number of LBs	264
Number of FOCJBs	264
Construction compounds maximum parameters	
Trenchless crossing compounds (length and width)	Up to 50m x 75m

¹ At discrete locations this will be expanded to accommodate the works including at trenchless crossings as defined in Outline Code of Construction Practice.

Parameter	Value	
Trenchless crossing compound at landfall (length and width)	Up to 120m x 100m	
Maximum parameters for the onshore substation		
Permanent area of site for all infrastructure	Up to 6ha	
Maximum main operational building and other infrastructure height	28.75 m AOD	
Maximum height of fire walls	26.25 m AOD	
Lightning protection mast height	34.25 m AOD	
Maximum number of buildings	12	
Maximum length of main operational building	70m	
Maximum width of main operational building	20m	
Maximum parameters for the extension to Bolney NG substation		
	AIS value	GIS value
Permanent area of site for all infrastructure	0.63ha	0.35ha
Maximum building height	3m	12m
Maximum number of buildings	2	1
Maximum length building	12m	35m
Maximum width of building	3m	20m
Maximum height of other infrastructure	12m (busbars)	6m (interface asset to take the existing busbars into the GIS)



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2. Glossary of terms and abbreviations

Table 2-1 Glossary of terms and abbreviations

Term (Acronym)	Definition
Air Insulated Switchgear (AIS)	Consist of components where active parts on high voltage are located outside open to the atmosphere.
Environmental Statement (ES)	The written output presenting the full findings of the Environmental Impact Assessment.
DCO Application	An application for consent under the Planning Act 2008 to undertake a Nationally Significant Infrastructure Project made to the Planning Inspectorate who will consider the application and make a recommendation to the Secretary of State, who will decide on whether development consent should be granted for the Proposed Development.
Development Consent Order (DCO)	This is the means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects, under the Planning Act 2008.
FOC	Fibre optic cable
FOCJB	Fibre optic cable joint bay
Gas Insulated Switchgear (GIS)	Consists of components where active parts on high voltage potential are insulated in pipes filled with gas and located within a building.
Horizontal Directional Drill (HDD)	A trenchless crossing engineering technique using a drill steered underground without the requirement for open trenches. This technique is often employed when crossing environmentally sensitive areas, major water courses and highways. This method is able to carry out the underground installation of pipes and cables with minimal surface disruption.

Term (Acronym)	Definition
HGV	Heavy goods vehicle
HVAC	High Voltage Alternating Current
JB	Joint bay
LAT	Lowest Astronomical Tide
LB	Link box
MHWS	Mean High Water Springs
Proposed Development	The development that is subject to the application for development consent, as described in Chapter 4: The Proposed Development, Volume 2 of the ES (Document Reference: 6.2.4).
RED	Rampion Extension Development Limited (The Applicant).
Wind Turbine Generators (WTGs)	The components of a wind turbine, including the tower, nacelle, and rotor.

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