

# Attachment 1 – Project specifications

The indicative offshore Project characteristics are detailed in Table 1 below, along with anticipated location in State and/or Commonwealth waters.

Table 1: Indicative offshore characteristics

Feature	Parameters	State waters	Commonwealth waters
<b>Wind Turbine Generators (WTGs)</b>		✓	
Maximum generation capacity	495 MW		
Number of turbines	33 - 62		
OWT capacity	8 – 15 MW		
Max. rotor diameter	220 m		
Max. hub height	154 m		
Design. life	30 years		
Separation between OWT	825 – 1100 m (5 x rotor diameter)		
Max. water depth at turbine locations	45 m		
Monopile foundations dimensions	6.5 – 8 m		
Monopile foundations depth	30 – 50 m		
<b>Offshore substation</b>		✓	
Platform size	800 m <sup>2</sup>		
Format	66 – 132 275kV		
Monopile foundations depth	30 – 50 m		
<b>Inter-array cables</b>		✓	
Total length (dependent upon WTG size)	250 km – 465 km		
Format	66kV		
<b>Offshore export cable</b>		✓	
Length (straight to shore and offshore to Portland)	11km and 58km		
Format	i.e. Up to 2x275kV		
Burial depth	1 – 4 m		
<b>Offshore construction platforms (J/U)</b>		✓	

Number	1		
Size	Up to length: 260m, beam: 50m, draft: 12m		
<b>Construction support vessels (CSV)</b>		✓	✓
Number	3-5		
Size	15-20m (CTV) 80-100m (ROV support)		
<b>Service Operation Vessels (SOV)</b>		✓	✓
Number	1		
Size	Up to 85m in length with accommodation for 60 POB		
<b>Navigational aids and monitoring devices</b>		✓	✓
Type	TBD		
Number	TBD		

The indicative onshore Project characteristics are detailed in Table 2 below.

Table 2: Indicative onshore characteristics

<b>Feature</b>	<b>Parameters</b>
<b>Transition pit</b>	
Footprint	10 x 15 m ( 5m deep)
Cable size	275 kV
<b>Onshore substation</b>	
Footprint	300 x 250 m (20 m high)
Format	275 kV
<b>Transmission line (to Heywood)</b>	
Total length	Approximately 30 km for all options being investigated
Format	2 x 275kV
Connection point	550 kV network substation at Heywood Terminal Station
<b>Construction sites</b>	
Footprint of temporary construction compound and lay down areas	Construction port requirements are typically:

	<ul style="list-style-type: none"> <li>• At least 8 hectares suitable for lay down and pre-assembly of product</li> <li>• Quayside of length 200-300m length with high load bearing capacity and adjacent access</li> <li>• Water access to accommodate vessels up to 140m length, 45m beam and 6m draft with no tidal or other access restrictions, and</li> <li>• Overhead clearance to sea of 100m minimum (to allow vertical shipment of towers).</li> </ul> <p>Sites with greater weather restrictions or for larger scale construction may require an additional lay-down area, up to 30 hectares. Large areas of land are required due to the space taken when turbines are stored lying down on the ground.</p>
<p><b>Operation and maintenance facilities</b></p>	<p>Operations relate to management of the asset such as health and safety, control and operation of the asset including wind turbines and balance of plant, remote site monitoring, environmental monitoring, electricity sales, administration, marine operations supervision, operation of vessels and quayside infrastructure, and back office tasks. An onshore control room provides access to detailed real-time and historical data for the wind turbines, substation, met station, offshore crew and vessels. Systems ensure that the operations duty manager knows where all personnel and vessels are located.</p>