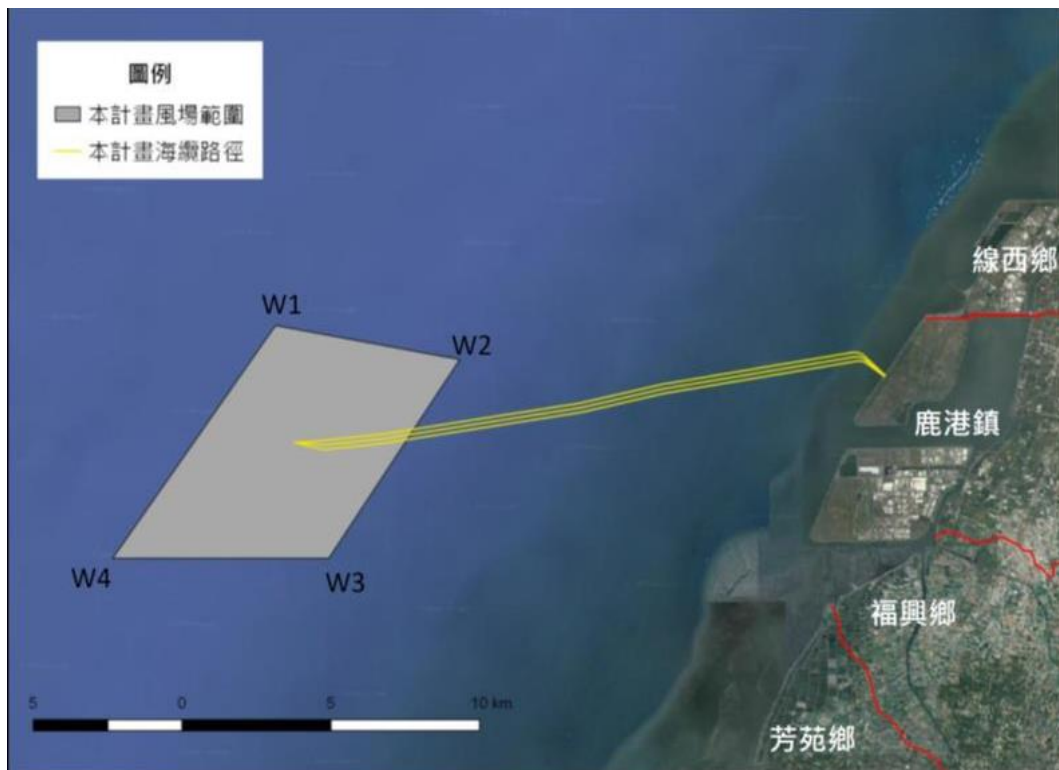


作業範圍 Construction Area

「離岸風力發電第二期計畫-風場財物採購帶安裝案」位於彰化縣彰濱工業區西方外海海域(如圖 1)，離岸最近距離約 16 公里，離岸風場內規劃採 6 個迴路，其中 5 個迴路的每 1 個迴路含 5 部風機，第 6 個迴路則含 6 部風機，每迴路所產生的電力則由風場內陣列海纜(Array cable)匯集至風場內海上變電站 (Offshore Substation)並升壓至 161 kV 後，經外送海纜(Export cable 3 迴路 161kV)由「彰化離岸風電海纜上岸共同廊道範圍之北側廊道」引接至彰濱工業區崙尾西區綠地之上岸人孔(TJB)上岸，改以地下管排經彰工升壓站西側旁之陸上電氣室進行功率補償，再以 1 迴路 161kV 複導體陸纜之地下管排自彰一(乙)開閉所西側進入對應之拱位併入電網。風場範圍如表 1 所示。各風機座標及海上變電站位置與座標可詳下圖 2 與表 2。

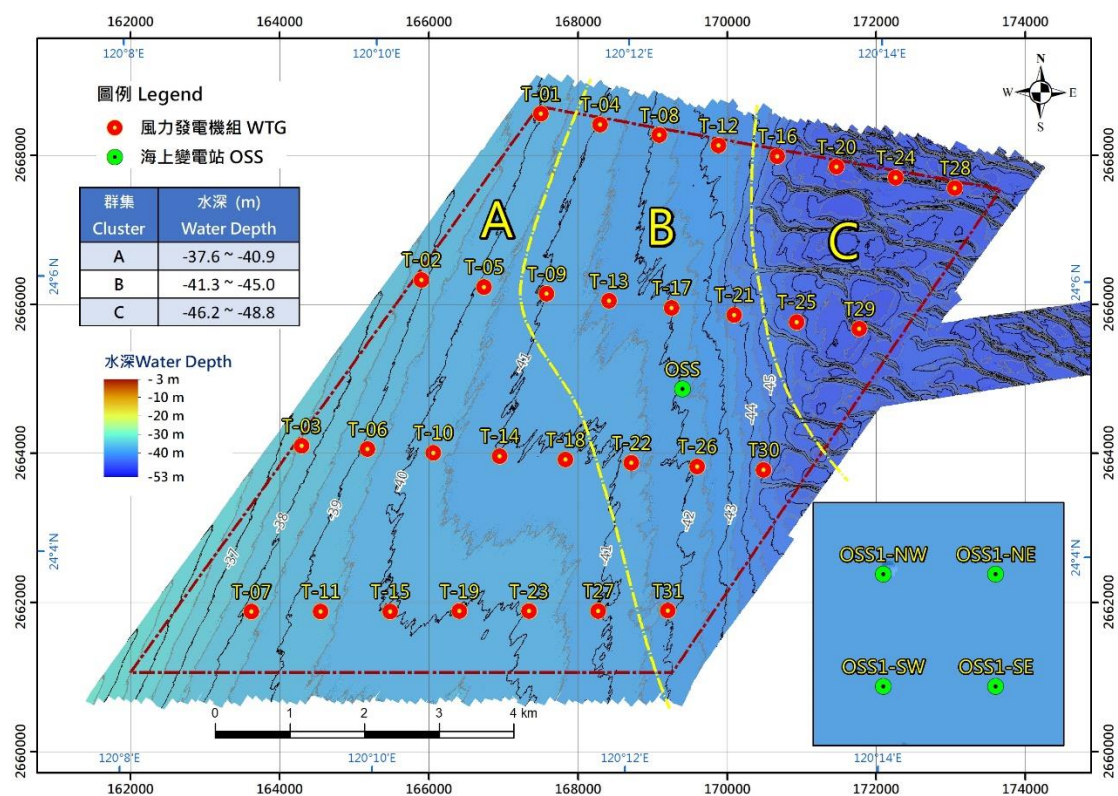
The "Offshore Wind Power Phase II Project - Wind Farm Property Procurement and Installation Project" is located in the western Changhua Coastal Industrial Park in Lukang Township of Changhua County (Figure 1), with the closest distance to the shore of about 16 km. There are 5 circuits of 5 wind turbines each and another 1 circuit of 6 wind turbines. The power generated by each circuit is collected from array cables to the offshore substation at the wind farm and boosted to 161kV. After that, the export cable 3 at circuit 161kV is connected to the manhole (TJB) in the greenbelt of Lunwei West District at the Changhua Coastal Industrial Park through the north side of the gallery as set forth in the "Common Gallery Scope of Changhua Offshore Wind Power Cables on Land." It is then compensated by the underground pipe duct connected to the land electric room beside the west side of the booster station at the Changbin Power Plant. And then it is transferred via the 161kV double conductor land cable at circuit 1 from the underground pipe duct to the west side of the Changyi (B) switching station connecting to the corresponding bay and merges into the Taipower power grid.



圖_Figure 1 風場範圍

表_Table 1 風場範圍座標

角點 / Corner	Easting_TWD97	Northing_TWD97
W1	167469	2668654
W2	173666	2667544
W3	169262	2661060
W4	161994	2661060



圖_Figure 2 本案風機及海上變電站位置

表_Table 2 本案風機及海上變電站座標

WTG No.	Easting_TWD97	Northing_TWD97	Depth_m
1	167508.8820	2668555.4240	-40.20
2	165904.0912	2666329.5278	-39.10
3	164299.3003	2664103.6316	-37.80
4	168301.4727	2668413.4560	-41.20
5	166742.5592	2666235.5650	-40.20
6	165183.6457	2664057.6739	-39.50
7	163624.7322	2661879.7829	-38.50
8	169094.0635	2668271.4880	-42.50
9	167581.0273	2666141.6021	-41.20
10	166067.9911	2664011.7162	-40.50
11	164554.9549	2661881.8303	-39.50

WTG No.	Easting_TWD97	Northing_TWD97	Depth_m
12	169886.6542	2668129.5200	-43.50
13	168419.4953	2666047.6393	-41.80
14	166952.3365	2663965.7585	-41.00
15	165485.1776	2661883.8777	-40.00
16	170679.2449	2667987.5520	-46.10
17	169257.9634	2665953.6764	-42.20
18	167836.6818	2663919.8008	-41.00
19	166415.4003	2661885.9252	-40.10
20	171471.8356	2667845.5840	-47.50
21	170096.4314	2665859.7135	-44.10
22	168721.0272	2663873.8431	-41.50
23	167345.6230	2661887.9726	-40.30
24	172264.4264	2667703.6160	-47.00
25	170934.8995	2665765.7507	-47.20
26	169605.3726	2663827.8854	-42.60
27	168275.8457	2661890.0200	-41.20
28	173057.0171	2667561.6480	-47.50
29	171773.3675	2665671.7878	-47.80
30	170489.7180	2663781.9276	-45.00
31	169206.0684	2661892.0675	-42.00
OSS1-SW	169396.2293	2664854.2783	-43.10
OSS1-SE	169421.2293	2664854.2783	-43.10
OSS1-NW	169396.2293	2664879.2783	-43.10
OSS1-NE	169421.2293	2664879.2783	-43.10

作業期程 Construction Period

本計畫船舶預計作業期程為 113 年 6 月 10 日至 114 年 6 月 30 日，惟此期程將依照現場施工或海氣象條件而有所變動。

The estimated vessel operation duration of this project is from 2024.June.10 to 2025.June.30, which will vary with practical operation situation and weather condition.

承攬廠商與相關聯繫人員 Contractors and relevant contact persons

本風場主要由寶巖海事工程公司所承攬，其相關聯繫相關人員如表 3 所示。

This plan is contracted to Shinfox Far East Company Pte Ltd and the relevant contact people are showed as Table 3.

表_Table 3 緊急聯絡人員表

施工廠商	聯絡人員	聯繫電話	施工範圍
富崙能源股份有限公司	陸俊煌	0937-004-861	運輸及安裝 T&I
富崙能源股份有限公司	陳冠嘉	0922-104-526	運輸及安裝 T&I
富崙能源股份有限公司	石依人	0920-119-011	環安衛 HSE
富崙能源股份有限公司	何昀潔	0932-111-103	環安衛 HSE
寶崙海事工程	Rolin	+60-19-220 0482	運輸及安裝 T&I
寶崙海事工程	Alan	0937-626-033	介面協調 Interface

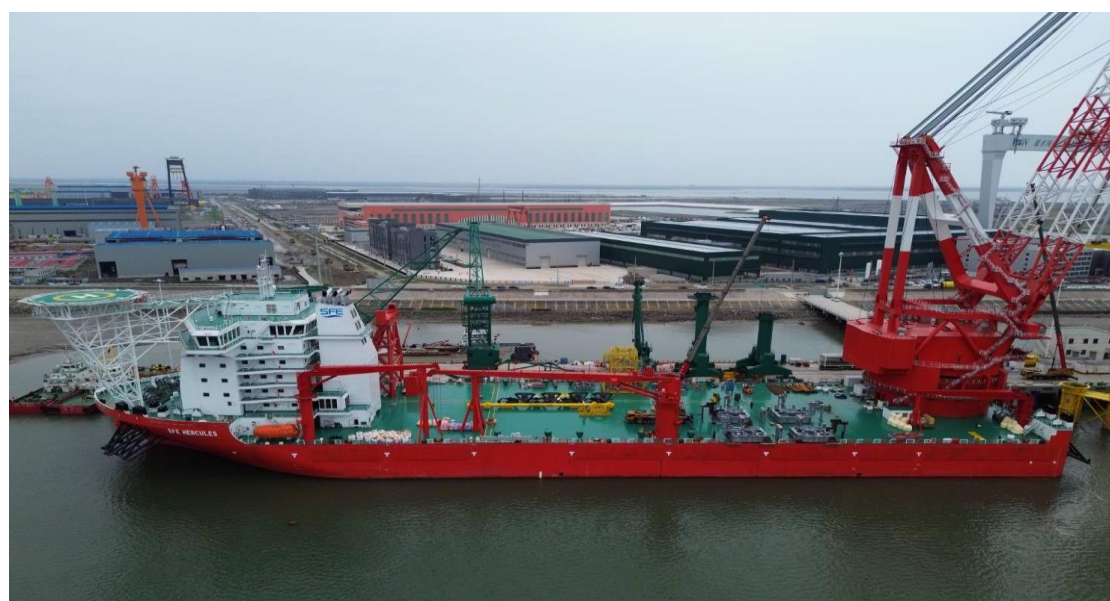
施工船舶 Working Vessels

本案風機下部結構運輸及安裝使用船隻，詳如下表 4。各船舶基本資訊續下表 5 至表 15。

表_Table 4 風機基樁運輸及安裝使用船隻

風機下部結構基樁運輸及安裝使用船隻			
船舶類型	船名	數量	目的
Heavy Lifting Vessel 重件吊裝船	SFE Hercules	1	基樁安裝 打樁模板安裝
Multi-Purpose Support Vessel 多功能輔助船	SFE Pioneer	1	海床整平
Transportation Barge 運輸駁船	CSBC 15	1	基樁運輸
Ocean Going Tug 拖船	CSBC 16	1	擔任 CSBC15 拖船
Support Tug 支援拖船	CSBC 11	1	輔助駁船拖帶
Bubble Curtain Vessel 氣泡船	MP Prospect	1	執行氣泡帷幕佈放
Guard Vessel 警戒船	Orient 8	1	風場警戒
MMO Vessel 鯨豚觀察船	Triton 1/7/8/9	4	鯨豚觀察

表_Table 5 SFE Hercules 船舶基本資訊



Name	SFE Hercules	Nationality	Panama
IMO no	1021439	Vessel Type	Heavy lift vessel
Length (m)	200.8	Draft (m)	11.5
Breadth (m)	48	Gross Tonnage	48349

表_Table 6 SFE Pioneer 船舶基本資訊



Name	SFE Pioneer	Nationality	Panama
IMO no	9413200	Vessel Type	Multi- Purpose Support Vessel
Length (m)	132	Draft (m)	9.6
Breadth (m)	48	Gross Tonnage	3599

表_Table 7 CSBC No.15 船舶基本資訊



Name	CSBC No.15	Nationality	Taiwan
MMSI	416046000	Vessel Type	Barge
Length (m)	140	Draft (m)	8
Breadth (m)	41	Gross Tonnage	13485

表_Table 8 CSBC No.16 船舶基本資訊



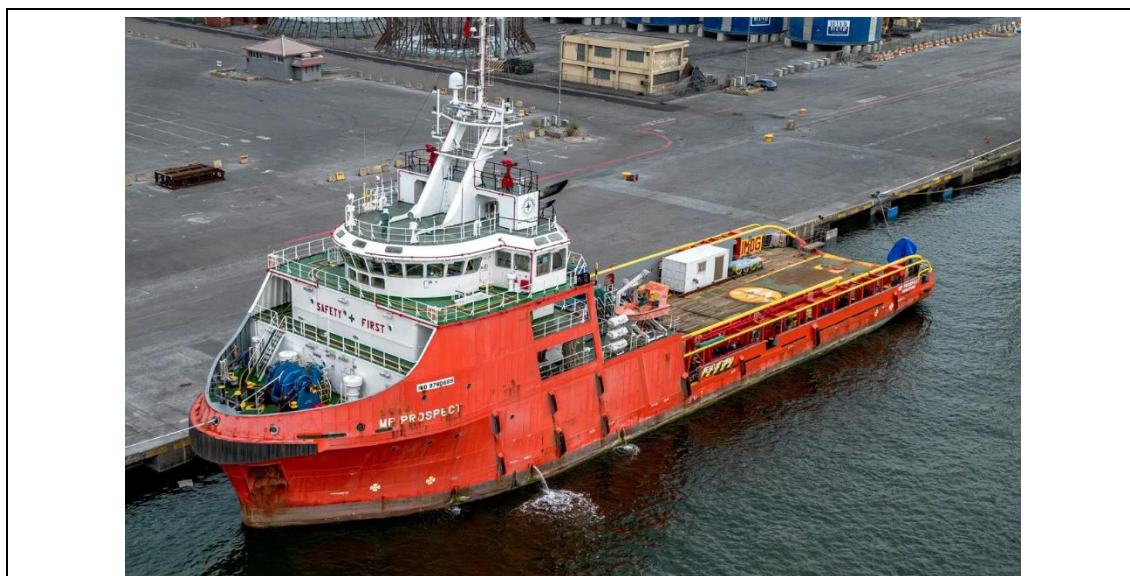
Name	CSBC No.16	Nationality	Taiwan
IMO no	9559030	Vessel Type	AHT
Length (m)	76	Draft (m)	8
Breadth (m)	18.5	Gross Tonnage	3511

表_Table 9 CSBC No.11 船舶基本資訊



Name	CSBC No.11	Nationality	Taiwan
IMO no	9709752	Vessel Type	TUG
Length (m)	38.1	Draft (m)	5
Breadth (m)	11	Gross Tonnage	499

表_Table 10 MP Prospect 船舶基本資訊



Name	MP Prospect	Nationality	Singapore
IMO no	9760689	Vessel Type	DBBC
Length (m)	70	Draft (m)	6.8
Breadth (m)	16.6	Gross Tonnage	2562

表_Table 61 Orient 8 船舶基本資訊



Name	Orient 8	Nationality	Taiwan
IMO no	9441635	Vessel Type	Guard Vessel
Length (m)	49.6	Draft (m)	4.3
Breadth (m)	12.6	Gross Tonnage	816

表_Table 12 Triton 1 船舶基本資訊



Name	Triton 1	Nationality	Taiwan
IMO no	9495894	Vessel Type	MMO Vessel I
Length (m)	34	Draft (m)	3.3
Breadth (m)	8	Gross Tonnage	217

表_Table 13 Triton 7 船舶基本資訊



Name	Triton 7	Nationality	Taiwan
IMO no	9495909	Vessel Type	MMO Vessel II
Length (m)	34	Draft (m)	3.3
Breadth (m)	8	Gross Tonnage	217

表_Table 14 Triton 8 船舶基本資訊



Name	Triton 8	Nationality	Taiwan
IMO no	9486776	Vessel Type	MMO Vessel III
Length (m)	34	Draft (m)	3.3
Breadth (m)	8	Gross Tonnage	217

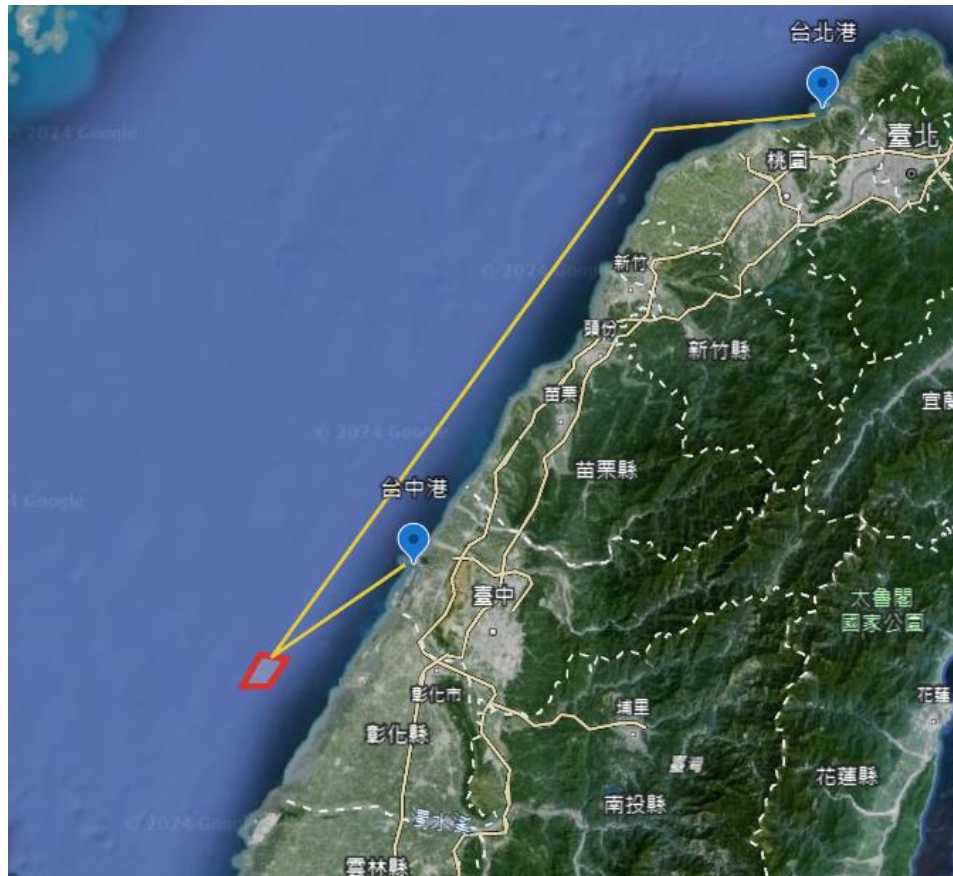
表_Table 15 Triton 9 船舶基本資訊

			
Name	Triton 9	Nationality	Taiwan
IMO no	9466075	Vessel Type	MMO Vessel IV
Length (m)	34	Draft (m)	3.3
Breadth (m)	8	Gross Tonnage	217

預計航行路線 The Planned Sailing Route

各船舶預定 113 年 6 月於台北港、台中港陸續整備，本案風機水下基礎(Jacket)將於台北港運出，而風機基樁(pin pile)將於台中港運出。專案執行期間，如遇緊急情況或氣候影響，則各船舶將會考量台中港作為緊急避難港口，相關位置如圖 3 所示。

During the installation of the casing foundation, each ship is scheduled to be ready in Taipei Port and Taichung Port in June 2024. The barge will transfer the Jacket in Taipei Port, while the tugboats and barges will transfer the pin piles in Taichung Port. During the implementation of the project, in the event of an emergency or climate impact, each ship will consider Taichung Port as an emergency evacuation port. The relevant location is shown in Figure 3.



圖_Figure 3 風場及港口位置圖 Location of Wind farm