



[Appendix 附件]

Vessel Specification and Information

船舶與作業相關資訊

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1.0 作業範圍 SITE AREA

1.1 作業區域 Layout of Site

Formosa 2 離岸風場位於台灣西北海岸新竹外海約 4-10 公里處。風電場分為四組，總面積約為 60 平方公里。該風電場將由 47 台 Siemens Gamesa SG-8.0-167 DD 風力渦輪機組成，總共將擁有容量 378MW。下圖 1 可見其風場範圍（橘色與綠色框線內），關於此區之座標請詳見表 2

The Formosa 2 Offshore Windfarm site is located approximately 4-10km off the North-West coast of Taiwan near Shin-chu. The Windfarm is subdivided into four strings which total an area of approximately 60km². The Windfarm will consist of 47 Siemens Gamesa SG-8.0-167 DD wind turbines and will have a total capacity of 378MW. Windfarm area as shown in below picture 1 (outlined with orange and green).

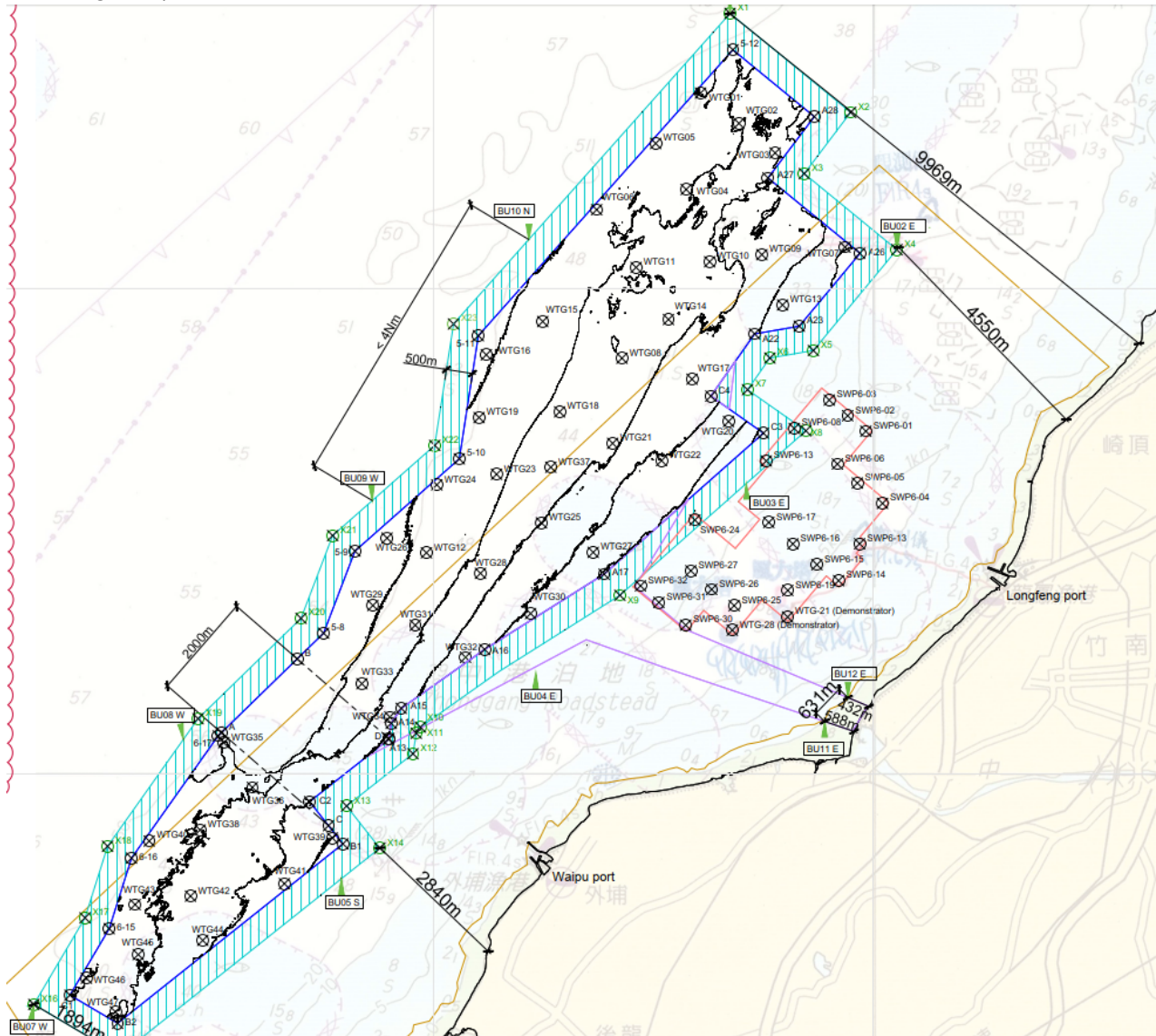


Figure 1-1 : Offshore Windfarm boundary and survey boundary

風場位置圖及調查範圍

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1.2 風場邊界座標資訊 Coordinate of Site Boundary

詳細座標如下表所示。The coordinate information is as below.

編號 (No.)	TWD 97		WGS 84 (deg, deg)		WGS 84 (deg, min, sec)	
	E	N	E	N	E	N
C1	217872.89	2724643.02	120.682670	24.628277	120°40'57.61"	24°37'41.79"
B2	218777.04	2724108.93	120.691612	24.623474	120°41'29.8"	24°37'24.5"
B1	223051.42	2727512.60	120.733765	24.654285	120°44'1.55"	24°39'15.42"
C2	222420.02	2728313.81	120.727511	24.661508	120°43'39.03"	24°39'41.42"
A13	223918.65	2729494.82	120.742295	24.672197	120°44'32.26"	24°40'19.9"
A14	223968.13	2729800.37	120.742779	24.674957	120°44'34"	24°40'29.84"
A15	224159.06	2730083.03	120.744660	24.677512	120°44'40.77"	24°40'39.04"
A16	225741.48	2731201.52	120.760277	24.687636	120°45'36.99"	24°41'15.48"
A17	228006.96	2732629.73	120.782642	24.700565	120°46'57.51"	24°42'2.03"
C3	231031.62	2735304.39	120.812498	24.724754	120°48'44.99"	24°43'29.11"
C4	230033.37	2736007.16	120.802621	24.731086	120°48'9.43"	24°43'51.9"
A22	230863.75	2737186.68	120.810813	24.741747	120°48'38.92"	24°44'30.28"
A23	231711.18	2737333.89	120.819189	24.743086	120°49'9.08"	24°44'35.1"
A26	232857.59	2738717.59	120.830506	24.755592	120°49'49.82"	24°45'20.13"
A27	231116.90	2740145.99	120.813276	24.768468	120°48'47.79"	24°46'6.48"
A28	231996.72	2741308.46	120.821961	24.778974	120°49'19.05"	24°46'44.3"
5-12	230451.67	2742576.32	120.806664	24.790402	120°48'23.99"	24°47'25.44"
5-11	225622.66	2737153.28	120.758999	24.741371	120°45'32.39"	24°44'28.93"
5-10	225260.72	2734817.01	120.755462	24.720272	120°45'19.66"	24°43'12.97"
5-9	223280.88	2733067.65	120.735926	24.704444	120°44'9.33"	24°42'15.99"
5-8	222685.42	2731509.97	120.730071	24.690370	120°43'48.25"	24°41'25.33"
6-17	220684.84	2729561.41	120.710342	24.672740	120°42'37.23"	24°40'21.86"
6-16	219041.03	2727242.50	120.694151	24.651771	120°41'38.94"	24°39'6.37"
6-15	218617.86	2725904.15	120.689999	24.639679	120°41'23.99"	24°38'22.84"

Table 1-1 : Coordinate of Site Boundary
 風場範圍座標



1.3 風基點位分布 Layout of WTG Location

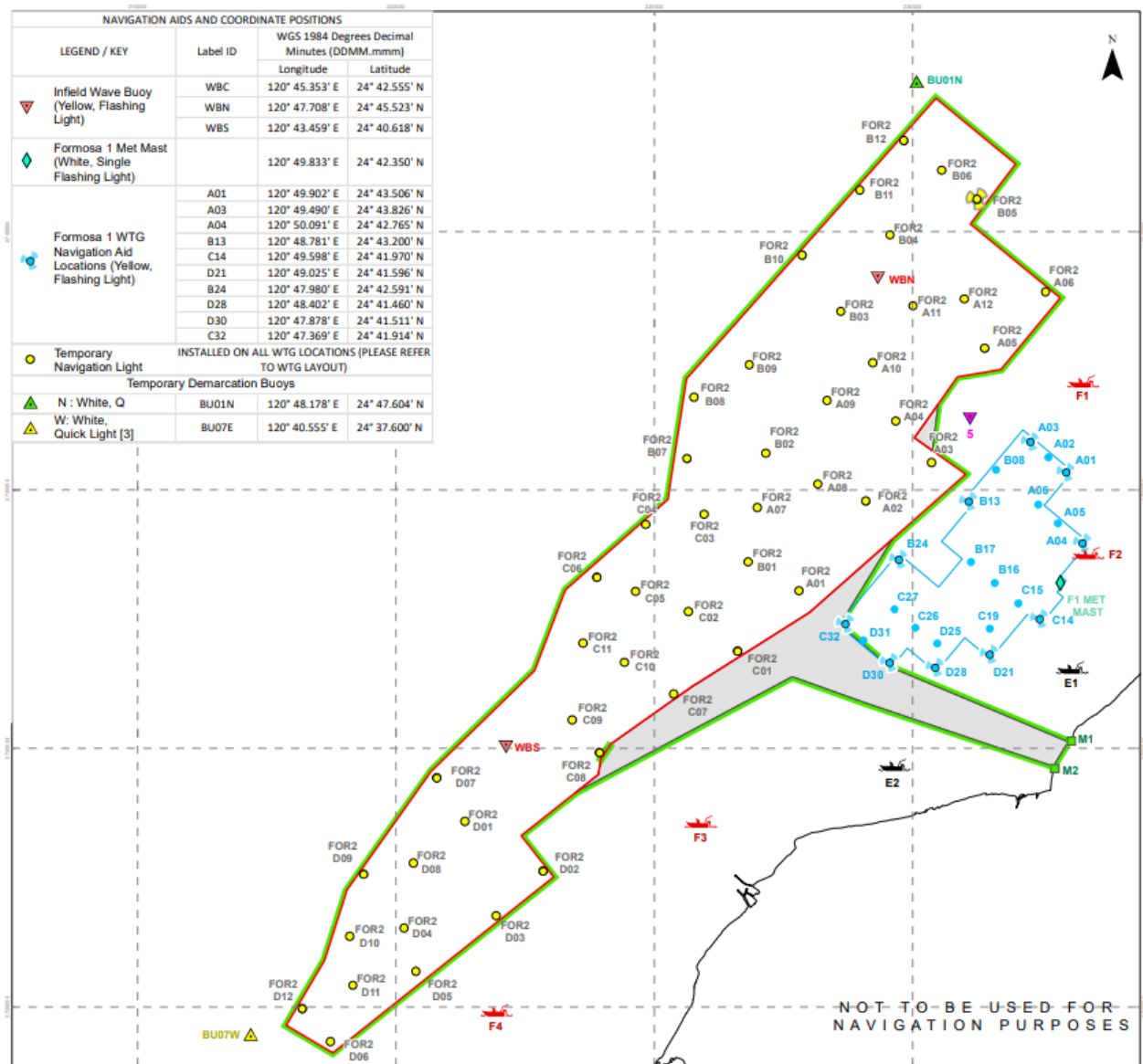


Figure 1-2 : Offshore Windfarm Layout

風積分布圖

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1.4 風基點位座標資訊 Coordinate of WTG Location

詳細座標如下表所示。The coordinate information is as below.

編號 (No.)	TWD 97		WGS 84 (deg, min, sec)	
	E	N	E	N
A01	227800.87	2733042.68	120° 46' 50.163" E	24° 42' 15.445" N
A02	229098.18	2734783.27	120° 47' 36.228" E	24° 43' 12.086" N
A03	230369.08	2735525.69	120° 48' 21.415" E	24° 43' 36.277" N
A04	229675.49	2736328.39	120° 47' 56.691" E	24° 44' 2.335" N
A05	231394.57	2737736.25	120° 48' 57.803" E	24° 44' 48.174" N
A06	232579.87	2738832.87	120° 49' 39.941" E	24° 45' 23.868" N
A07	226997.50	2734657.00	120° 46' 21.484" E	24° 43' 7.873" N
A08	228169.59	2735110.64	120° 47' 3.166" E	24° 43' 22.680" N
A09	228346.95	2736725.89	120° 47' 9.388" E	24° 44' 15.190" N
A10	229229.02	2737460.64	120° 47' 40.741" E	24° 44' 39.116" N
A11	230010.52	2738555.77	120° 48' 8.499" E	24° 45' 14.748" N
A12	231001.69	2738690.32	120° 48' 43.773" E	24° 45' 19.167" N
B01	226819.90	2733602.24	120° 46' 15.227" E	24° 42' 33.581" N
B02	227163.07	2735707.81	120° 46' 27.314" E	24° 43' 42.037" N
B03	228614.70	2738448.45	120° 47' 18.822" E	24° 45' 11.192" N
B04	229565.88	2739927.07	120° 47' 52.601" E	24° 45' 59.299" N
B05	231253.87	2740619.82	120° 48' 52.656" E	24° 46' 21.893" N
B06	230566.60	2741181.25	120° 48' 28.161" E	24° 46' 40.111" N
B07	225634.96	2735601.50	120° 45' 32.940" E	24° 43' 38.497" N
B08	225772.55	2736790.25	120° 45' 37.763" E	24° 44' 17.143" N
B09	226844.07	2737422.78	120° 46' 15.860" E	24° 44' 37.762" N
B10	227867.17	2739543.07	120° 46' 52.152" E	24° 45' 46.733" N
B11	229011.57	2740775.17	120° 47' 32.822" E	24° 46' 26.838" N
B12	229838.23	2741756.60	120° 48' 2.201" E	24° 46' 58.777" N
C01	226614.05	2731882.61	120° 46' 8.006" E	24° 41' 37.675" N
C02	225662.12	2732645.55	120° 45' 34.092" E	24° 42' 2.420" N
C03	225967.62	2734524.59	120° 45' 44.845" E	24° 43' 3.513" N
C04	224834.48	2734324.29	120° 45' 4.537" E	24° 42' 56.937" N
C05	224636.68	2733034.49	120° 44' 57.582" E	24° 42' 15.002" N

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編號 (No.)	TWD 97		WGS 84 (deg, min, sec)	
	E	N	E	N
C06	223889.77	2733313.52	120° 44' 30.989" E	24° 42' 24.027" N
C07	225379.48	2731052.18	120° 45' 24.136" E	24° 41' 10.614" N
C08	223942.30	2729919.07	120° 44' 33.084" E	24° 40' 33.699" N
C09	223412.20	2730551.19	120° 44' 14.185" E	24° 40' 54.212" N
C10	224424.78	2731660.71	120° 44' 50.133" E	24° 41' 30.337" N
C11	223621.48	2732035.90	120° 44' 21.529" E	24° 41' 42.483" N
D01	221334.39	2728583.36	120° 43' 0.415" E	24° 39' 50.117" N
D02	222851.20	2727626.10	120° 43' 54.432" E	24° 39' 19.102" N
D03	221941.85	2726757.65	120° 43' 22.152" E	24° 38' 50.815" N
D04	220160.74	2726520.76	120° 42' 18.827" E	24° 38' 42.995" N
D05	220392.34	2725681.64	120° 42' 27.127" E	24° 38' 15.736" N
D06	218736.05	2724326.57	120° 41' 28.337" E	24° 37' 31.574" N
D07	220792.14	2729432.24	120° 42' 41.064" E	24° 40' 17.672" N
D08	220342.40	2727776.09	120° 42' 25.192" E	24° 39' 23.810" N
D09	219376.67	2727565.64	120° 41' 50.862" E	24° 39' 16.901" N
D10	219109.34	2726360.48	120° 41' 41.449" E	24° 38' 37.711" N
D11	219168.60	2725412.17	120° 41' 43.631" E	24° 38' 6.891" N
D12	218184.92	2724963.38	120° 41' 8.688" E	24° 37' 52.232" N

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2.0 船舶基本資料 VESSEL INFORMATION

2.1 Vessel 1：風機安裝船

船名 Vessel Name	Brave Tern
船籍港 Home Port	Valletta
總噸數 Gross Tonnage	15328
船長 LOA	131.73 m
船寬 Width	39.00 m
IMO	9583782
MMSI	229044000

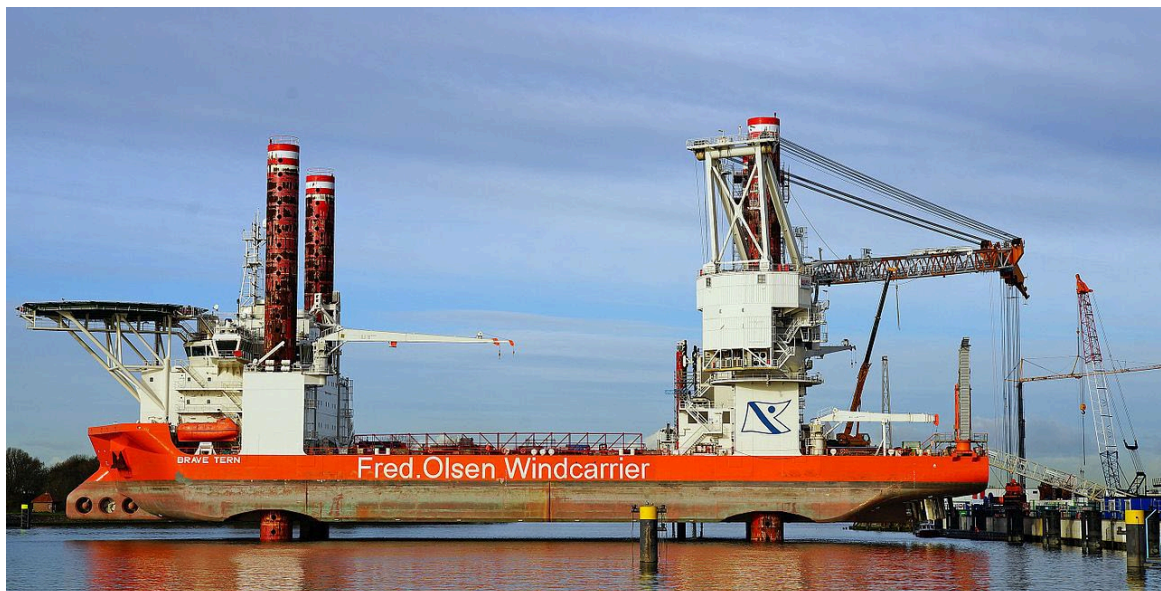


Figure 2-1 : Photo of Brave Tern

海上飛燕 船舶照片

Vessel Specification and Information

2.1 Vessel 2 : 風機安裝船

船名 Vessel Name	Bold Tern
船籍港 Home Port	Valletta
總噸數 Gross Tonnage	TBC
船長 LOA	131.73
船寬 Width	TBC
IMO	9583794
MMSI	229080000



Figure 2-2 : Photo of Bold Tern

環宇飛燕船舶照片

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2.2 Vessel 3：多功能支援船

船名 Vessel Name	MMA PRESTIGE
船籍港 Home Port	Labuan
總噸數 Gross Tonnage	5138
船長 LOA	87.8 m
船寬 Width	22.0 m
IMO	9696175
MMSI	533130592



Figure 2-3 : Photo of MMA Prestige

威望船舶照片

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2.1 Vessel 4 : 多功能支援船

船名 Vessel Name	Normand Baltic
船籍港 Home Port	Labuan
總噸數 Gross Tonnage	4792
船長 LOA	94.9m
船寬 Width	20.03 m
IMO	9468190
MMSI	235077315



Figure 2-4 : Photo of MMA Prestige

MMA Prestige 船舶照片

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2.2 Vessel 5：人員運輸船

船名 Vessel Name	Falcon 2
船籍港 Home Port	Taichung
總噸數 Gross Tonnage	241.89
船長 LOA	26.8 m
船寬 Width	10.3 m
IMO	9884069
MMSI	416006193



Figure 2-5 : Photo of Falcon 2

宏隼 2 號 船舶照片

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2.3 Vessel 6: 人員運輸船

船名 Vessel Name	UMO Mistral
船籍港 Home Port	Kaohsiung
總噸數 Gross Tonnage	161
船長 LOA	23.65 m
船寬 Width	9.5 m
IMO	9681302
MMSI	416008897



Figure 2-6 : Photo of UMO Mistral

裕風 3 號船舶照片

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2.1 Vessel 7：人員運輸船

船名 Vessel Name	Ventus Xingang
船籍港 Home Port	Kaohsiung
總噸數 Gross Tonnage	199
船長 LOA	26.0 m
船寬 Width	8.9 m
IMO	9909819
MMSI	416006765



Figure 2-7 : Photo of Ventus Xingang

峰達新港船舶照片

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2.1 Vessel 8 : 人員運輸船

船名 Vessel Name	Ventus Beigang
船籍港 Home Port	Kaohsiung
總噸數 Gross Tonnage	199
船長 LOA	26.0 m
船寬 Width	8.9 m
IMO	9884368
MMSI	416005898



Figure 2-8 : Photo of Ventus Beigang

峰達北港船舶照片

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2.1 Vessel 9: 人員運輸船

船名 Vessel Name	Falcon 5
船籍港 Home Port	Taichung
總噸數 Gross Tonnage	241.89
船長 LOA	26.8 m
船寬 Width	10.3 m
IMO	9908009
MMSI	416006809



Figure 2-9 : Photo of Falcon 5

宏隼 5 號 船舶照片

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2.1 Vessel 10 : 人員運輸船 (非長租僅按實際狀況單次租賃 Time Charter by voyage)

船名 Vessel Name	TIPM22602
船籍港 Home Port	高雄港
總噸數 Gross Tonnage	Kaohsiung Port
船長 LOA	176 ton
船寬 Width	26 m
IMO	9.8 m
MMSI	9854442



Figure 2-10 : Photo of TIPM22602

TIPM22602 船舶照片

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3.0 緊急聯絡人與專案負責人 CONTACT INFORMATION

專案公司 Project company 海能公司 Formosa 2			
職位 Position	公司 Company	姓名 Name	電話 Mobile Phone
海事協調中心	海能風力發電股份有限公司	MCC	+886 928 193 922 +886 972 779 573
海事經理	海能風力發電股份有限公司	Arden Tsai 蔡亞霖	+886 911 374 469
運輸&安裝經理	海能風力發電股份有限公司	Oliver Stettner	+886 916 548 103
施工經理	海能風力發電股份有限公司	Paul Hammond	+886 971 007 716

Table 3-1 : Contact Information of Project Company

專案公司聯絡人資訊

工程公司 Contractor 西門子歌美颯離岸風力發電公司 SGRE			
職位 Position	公司 Company	姓名 Name	電話 Mobile Phone
PM	SGRE	Saraswat, Arun	+886 976-159-482
Site Manager	SGRE	Chris Sweeney	+886 981-185-505
Site Manager	SGRE	Xavier De Meulder	+886 903-317-161
Site Manager	SGRE	William Ho	+886 981-185-329
Marine Supervisor	SGRE	Tom Ward	+886 910-233-672

Table 0-1 : Contact Information of SGRE

海事工程公司聯絡人資訊

船舶聯絡人 Vessel Contact					
船名 Vessel	職位 Position	公司 Company	姓名 Name	電話 Phone	Mobile
Brave Tern Bold Tern	Master	Fred Olsen	Master	+886 741	903-039-
MMA Prestige	VP	MOL Taiwan	Jay Ko	+886 2 2537 8005	
Falcon 2/5	CEO	Dong Fang Offshore	Polin Chen	+886 249	970-299-
UMO Mistral	Manager	U-Ming Marine Offshore	Falco Fang	+886 642	976-219-
Ventus Xingang/Begang	MD	Ventus Marine	Lai Kuan Seng	+886 051	967-300-

Table 0-2 : Contact Information of vessel

船舶聯絡人資訊