

1. Coordinates of wind farm boundary (海域地質鑽探(Geotechnical Campaign)範圍與圖示)

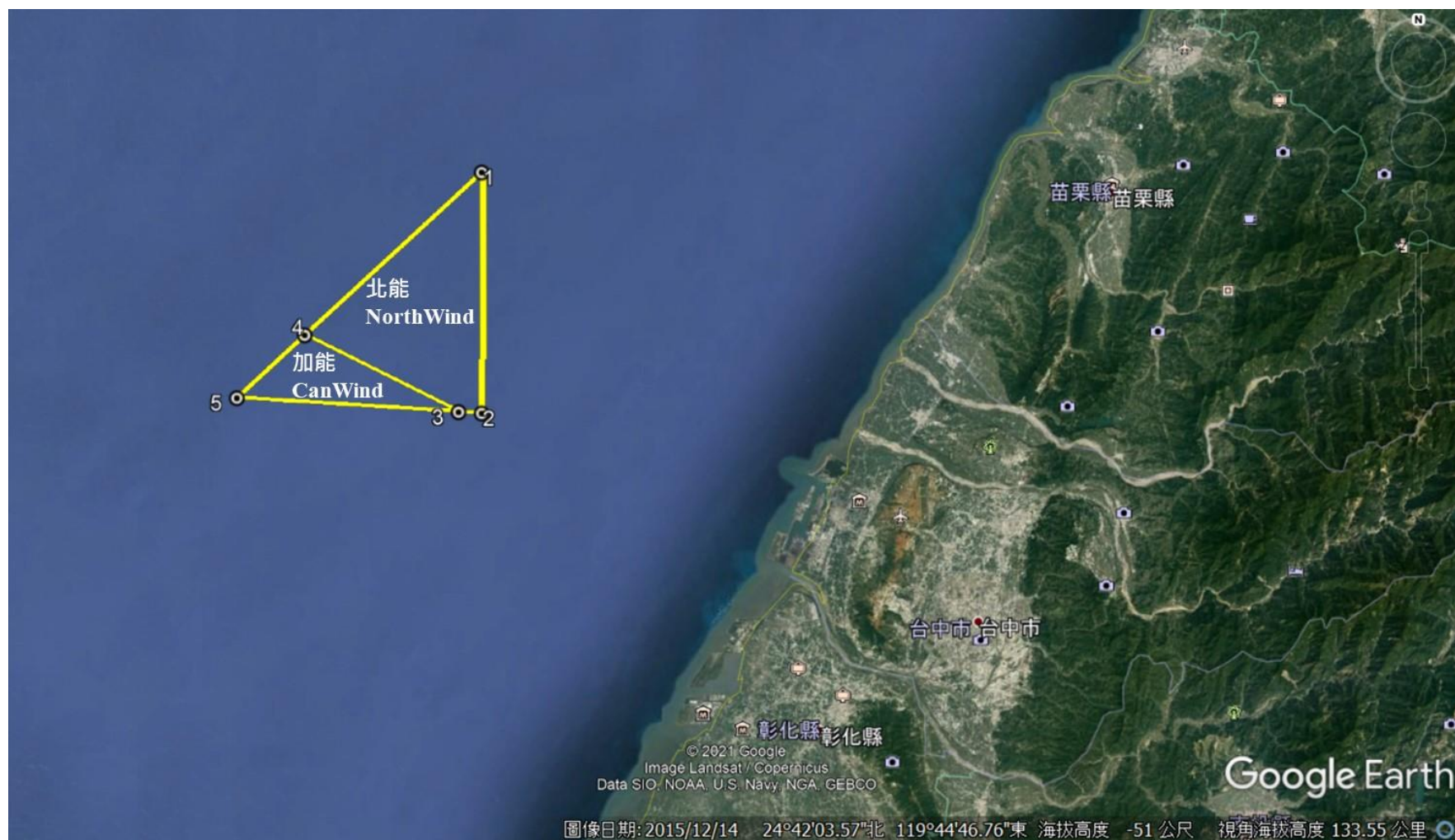


圖 1 北能與加能離岸風場位置示意圖

2. Working area, (施工地點座標)
(座標系統：WGS84)

SITE NorthWind (北能風場)

	經緯度座標 WGS84			
	(deg)		(deg, min, sec)	
編號	LONG(E)	LAT(N)	LONG(E)	LAT(N)
1	120.165783	24.581287	120°09'56.82"	24°34'52.63"
2	120.165964	24.353234	120°09'57.47"	24°21'11.64"
3	120.141901	24.354471	120°08'30.84"	24°21'16.10"
4	119.981372	24.427078	119°58'52.94"	24°25'37.48"

SITE CanWind (加能風場)

	經緯度座標 WGS84			
	(deg)		(deg, min, sec)	
編號	LONG(E)	LAT(N)	LONG(E)	LAT(N)
3	120.141901	24.354471	120°08'30.84"	24°21'16.10"
4	119.981372	24.427078	119°58'52.94"	24°25'37.48"
5	119.910583	24.367428	119°54'38.10"	24°22'02.74"

表 1 風場範圍之角點座標

3. Vessel specification including vessel name, IMO, Call sign, vessel flag, Port of registry, vessel length, GT, NT (船舶規格, 包含船名, IMO, 呼號, 船舶國籍, 船籍港, 總長, 總噸位, 淨噸位)

船舶名稱 Vessel name	大地能源號 MV Geo Energy	總長 Total length	72.20 m
IMO	9297797	船舶認證	CR & DNV GL
船舶國籍 Flag	台灣 (Republic of China)	主要設備	Drilling Derrick 起重設備, Deck Crane
總噸位	2151 噸	淨噸位	1047 噸
船籍港 Registry port	高雄港 Kaohsiung		



TECHNICAL SPECIFICATIONS MV GEO ENERGY

Principle Particulars

Vessel Name	GEO ENERGY
Length Overall	72.20 m
Beam	16.00 m
Depth	7.00 m
Draft Designed	5.00 m
Draft Maximum	5.80 m
Deadweight	3302 Tonnes
Gross Tonnage	2151 Tonnes
Net Tonnage	1047 Tonnes
IMO Number	9297797
MMSI	538007354
Flag	Republic of China
Port of Registry	Kaohsiung
Call Sign	BR4045
Classification	DNV GL/CR
Class Notation	1A1 SF E0 DPS-2 DK(+) HL(2.5) TMON
Reconstruction Year	2017

Machinery

Main-engines	2 x BERGEN KRMB 9 Diesel Engines Each 2725 BHP, Total 5450 BHP
Propellers	2 x ULSTEIN Controlled Pitch Props.
Rudders	2 x ULSTEIN High Lift Rudders
Bow Thruster	2 x ULSTEIN 150TV@800BHP
Stern Thruster	1 x ULSTEIN 150TV@800BHP
Generators	2 x 1280 KW Shaft Generators 2 x 250 KW Diesel Generators 1 x 48 KW Emergency Generator

Capacities

Clear Deck	690.00 M ² (51.00 x 13.50 Meters)
Deck Cargo	1600 Tonnes
Deck Strength	5.0 Tonnes Per M ²
Fuel Oil	1040 M ³
Ballast Water	510 M ³
Potable Water	1100 M ³

Deck Machinery

Anchors	2 x 2460 Kgs
Capstans	2 x 8 Tonnes SWL Line Pull
Crane	1 x 3 Tonnes SWL, At 10 to 16 Meters Radius

Life Saving and Fire Fighting

Rescue Boat	1 x Unit for 6 Persons
ALL LSA and FFA installed are in compliance to SOLAS	

Drilling System

Derrick	1 x 25 Tonnes SWL
Hoist System	1 x 25 Tonnes SWL
Hydraulic Power Packs	1 x 90 KW, 2 x 75 KW, 3 x 20 KW pumps
Power Swivel	1 x Max Load 30 Tonnes 0 - 1550 DaNm @ 0 - 76 rpm 0 - 3100 DaNm @ 0 - 38 rpm
Pipe Handling System	1 x Pipe Crane 1 x Pipe Grab 1 x Cat Walk 1 x Iron Roughneck
Mud System	2 x 6000 Ltrs working mud tank 1 x 9000 Ltrs working mud tank
Deck Generators	2 x 545 KW CAT Diesel Generators

Accommodation

01 x Bunk Cabins	5 x Cabins (5 person)
02 x Bunk Cabins	6 x Cabins (12 person)
04 x Bunk Cabins	6 x Cabins (24 person)
Dining Saloon	for 18 persons Per Meal
Metting Room	1 x Space
Hospital	1 x Hospital
<i>En Suite Shower/ Toilet installed for all cabins</i>	
<i>Air Conditioning for entire accommodation spaces</i>	

Navigation and Communication

DP System	K-POS DP 21 / KONGSBERG
Radars	1 x FURUNO FR-2135 1 x FURUNO FR-2115
GPS	1 x FURUNO GP 80 1 x FURUNO GP 150
AIS	1 x FURUNO FA-100
Echo Sounder	1 x FURUNO FC-700 1 x KONGSBERG EA440
Gyro Compass	1 x ANSCHUTZ, 2 x SPERRY with 4 x Repeaters
Auto Pilot	1 x ANSCHUTZ
Speed Log	1 x FURUNO DS 80
NAVTEX	1 x FURUNO NX 500
ECDIS System	TEELCHART TECDIS T-2138A
GMDSS	2 x FURUNO FELCOM 15 Inmarsat C; For A1-A2-A3
SSB Radios	1 x FURUNO FS 2570 C
VHF/DSC	1 x FURUNO FM 8700, and 1 x FURUNO FM 2721
VSAT	1 x SAILOR FleetXpress
Fleet Broadband	1 x SAILOR FBB 500

4. Picture of Vessel (船舶照片)

圖 2 大地能源號 船舶照片



5. Emergency contact window, Reps from HL side will be Miguel and Gabriel
(緊急應變聯絡人)

PDE 緊急連絡窗口:

Position	Name	Contact
PDE Director	Huang Hsin-Chih	pde@pde-offshore.com Mob: +886 937-004-357
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GE Party Chief	Abdul Hafidz Muhammad Syukri	ge_pc@pde-offshore.com Mob: +886 905-330-788
GE Master	Lee Kuo Liang	ge_captain@pde-offshore.com Mob: +886 937-717-202 Mob: +886 905-550-173 Call Sign: BR4045 Inmarsat C: 453843676 V-Sat: +65 31638755
HSE & Marine Manager	Tim Ho	timhotw@gmail.com fairwind.ship@gmail.com Mob: +886 263-6982

北陸能源發展股份有限公司聯絡窗口:

Position	Name	Contact
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