











Item No. 編號	Tools/Equipment Description 工具/設備名稱		數量 (澳電最低的要求) Quantity (CEM Min. Reqmt.)	種類 Category	規格Specification
1	Boom Lift 臂式升降機		1		Max Platform Height: 40ft Max Horizontal Reach: 20ft
2	Crane Truck 起重吊車		1		Crane Load Torque: 75kNm Carry Capacity: 7500kg
3	Lathe machine 車床		1		Maximum Rotation: 500mm Workpiece Maximum Length: 1500mm
4	Milling machine 銑床		1		Range of Spindle Speed(r.p.m): 65 - 4540 r.p.m Spindle Bore(mm): 86 Feed Speed(mm/min): 0 - 2000 mm/min Rapid Feed Speed(mm/min): 0 - 2000 mm/min
5	Radial Drilling Machine 搖臂鑽床		1		Maximum Drilling Diameter: 32mm Span: 1000mm
6	Bench Drilling & Tapping Machine 台式鑽攻兩用機		1		Maximum Tapping Capacity: 16mm
7	Forklifts 堆高機		1		Nominal load at COG 2 T Engine power 37.3 kW

投標編號 Tender Ref. PLD-CS001/26/33
 附件一 - 工具與設備列表
 Attachment 1 - List of Tools and Equipment



Item No. 編號	Tools/Equipment Description 工具/設備名稱		數量 (澳電最低的要求) Quantity (CEM Min. Reqmt.)	種類 Category	規格Specification
8	Van 貨車		2		Carry capacity 2400kg
9	Dynamic Balancing Machines 動平衡機		1		Rotor max. weight: 50kg - 500kg
10	Sandblasting machine 噴沙機		1		Machine Working Pressure: 0.5 - 0.8 Mpa Vessel Working Pressure: 0.8 Mpa Vessel Max Pressure: 1.26 Mpa
11	Chain Block Hoist 鏈式起重機		8	Workshop Facilities	Load Capacity: 1 ton (4 unit) Load Capacity: 2 ton (4 unit)
12	Tile Cutter Machine 切石機		1	Workshop Facilities	Saw Disc Diameter: 5 inch
13	Angle Grinder 角磨機		8	Workshop Facilities	Disc Diameter: 100 mm Maximum Cutting Depth: 16 mm

Item No. 編號	Tools/Equipment Description 工具/設備名稱		數量 (澳電最低的要求) Quantity (CEM Min. Reqmt.)	種類 Category	規格Specification
14	Cordless Angle Grinder 充電式角磨機		4	Workshop Facilities	Maximum torque (soft/hard joint): 65 Nm (soft joint), 85 Nm (hard joint) No load RPM: gear 1: 490 rpm; gear 2: 2000 rpm Chuck clamping range: 2 - 13 mm
15	Cordless Impact Wrench 充電式衝擊扳手		6	Workshop Facilities	Anvil Type: 1/2" detent pin(4), 3/4" detent pin(2) Maximum Torque: 450 Nm (1) Full Hammering Frequency: 2500 impacts/minute
16	Subcompact Class Cordless 12V Drill Driver 次精密級別充電式 12V 衝擊鑽		2	Workshop Facilities	Maximum torque (Soft / Hard Joint): 21 Nm (soft joint), 34 Nm (hard joint) No load RPM: gear 1: 400 rpm; gear 2: 1600 rpm Chuck clamping range: 1 - 10 mm
17	Subcompact Class Cordless 12V Drill Driver 充電式電鑽鑽絲批		2	Workshop Facilities	Maximum torque (soft/hard joint): 65 Nm (soft joint), 85 Nm (hard joint) No load RPM: gear 1: 490 rpm; gear 2: 2000 rpm Chuck clamping range: 2 - 13 mm
18	Cordless Rotary Hammer 充電式電鎚鑽		3	Workshop Facilities	Optimum Hammer Drilling Range: 4 - 14 mm Single Impact Energy: 2.3 J
19	Cordless 22V Circular Saw 充電式金屬鋸		1	Workshop Facilities	Max. cutting depth: 57 mm Blade diameter: 165 mm Base material: Metal, Sandwich panel
20	Rotary Hammer SDS 四坑錘鑽		4	Workshop Facilities	Impact rate at rated speed: 0 – 4.000 bpm Rated speed: 0 – 900 rpm







投標編號 Tender Ref. PLD-CS001/26/33
 附件一 - 工具與設備列表
 Attachment 1 - List of Tools and Equipment



Item No. 編號	Tools/Equipment Description 工具/設備名稱		數量 (澳電最低的要求) Quantity (CEM Min. Reqmt.)	種類 Category	規格Specification
21	Manual arc welding machine 手工電弧焊機		1	Workshop Facilities	Technical details Input voltage: 230V 1ph Absorbed power: kVA 8,7 KW 7 No load voltage: 65 Welding current: 15-200 Duty cycle: MMA 200A-60% Electrodes (mm): 1,6 - 5
22	AC manual arc welding machine 交流式手工電弧焊机		1	Workshop Facilities	Input Power (V): 380 Rated Input Current (A): 59.3 Rated Input Capacity (kVA): 22.5 Rated Open Circuit Voltage(V): 70 Welding Current Adjustment Range(A): 60-300 Rated Output(A) (20°C) / (40°C): 35%@300
23	Portable Handheld Air Plasma Cutting Machine 便携手提式空氣等離子切割機		1	Workshop Facilities	Max Cutting Thickness: 15 mm Voltage: AC380V
24	Portable argon arc welding machine 手提式氬弧焊機		1	Workshop Facilities	Input voltage: AC380V±15%, 50Hz/60Hz Power rating (KVA): 7.2 Power factor: 0.93 No-load voltage (V): 60
25	Inverter DC stainless steel welding machine single use argon arc welding machine 逆變直流不銹鋼焊機 單用氬弧焊機		1	Workshop Facilities	Input Voltage: 1P 220V Frequency: 50/60Hz Power: 3.9kVA TIG Welding voltage: 44V Workpiece welding: ø0.5 - ø4.0mm Welding current: 10 - 180A
26	Portable inverter DC argon arc welding machine 手提式逆變直流氬弧焊機		1	Workshop Facilities	Max. Load Power Capacity: 6.2 kVA Output Polarity: DC TIG Rated Duty Cycle @40°C (TIG): 60%
27	Portable dual voltage inverter DC arc welding machine 手提式雙電壓逆變直流電弧焊機		1	Workshop Facilities	Rated Duty Cycle @40°C: 40%

投標編號 Tender Ref. PLD-CS001/26/33
 附件一 - 工具與設備列表
 Attachment 1 - List of Tools and Equipment



Item No. 編號	Tools/Equipment Description 工具/設備名稱		數量 (澳電最低的要求) Quantity (CEM Min. Reqmt.)	種類 Category	規格Specification
28	Welding heat treatment equipment 用於焊接熱處理的柔性陶瓷加熱墊		1	Workshop Facilities	Minimum requirement for pre-heating piping: 10" inch, SCH120, outlet size 273.1mm
29	Welding heat treatment equipment 焊接熱處理用電磁感應加熱機		1	Workshop Facilities	Minimum requirement for pre-heating piping: 10" inch, SCH120, outlet size 273.1mm
30	Welding stick preheat equipment 便携式焊條電極烘箱		1	Workshop Facilities	Input Voltage 230 Rod Elevator - Makes it easy to extract your stick electrode. Preset 300° F (149 C) temperature. Removable, one-piece carrying handle.
31	Lux Meter 測光器		1	Workshop Facilities	Measurement range: 400.0 / 4000 / lux Resolution: 0.1 / 1 / 10 / 100 lux
32	Advanced Wire Tester Tracker 高級電線追蹤器		1	Workshop Facilities	transmitter: Output signal: 125kHz External voltage identification range: DC 12~400V±2.5%; AC 12~400V(50-60Hz±2.5%); receiver: Single-pole use : approx. 0~2m Multi-pole use : approx. 0~0.5m
33	Multifunction Tester MEGGER錶(阻抗錶)		1	Workshop Facilities	Insulation test: 1000 Volts: 10 kΩ - 999 MΩ ±3% ±2 digits 500 Volts: 10 kΩ - 500 MΩ ±3% ±2 digits >500 MΩ ±10% ±4 digits 250 Volts: 10 kΩ - 250 MΩ ±3% ±2 digits >250 MΩ ±10% ±4 digits 100 Volts: 10 kΩ - 100 MΩ ±3% ±2 digits >100 MΩ ±10% ±4 digits
34	Digital Multimeter 多用途他錶		4	Workshop Facilities	Maximum voltage between any terminal and earth ground: 1000 V DC or AC RMS Fuse for mA inputs: 440 mA, 1000 V FAST Fuse Fuse for A input: 11 A, 1000 V FAST Fuse

投標編號 Tender Ref. PLD-CS001/26/33
 附件一 - 工具與設備列表
 Attachment 1 - List of Tools and Equipment



Item No. 編號	Tools/Equipment Description 工具/設備名稱		數量 (澳電最低的要求) Quantity (CEM Min. Reqmt.)	種類 Category	規格Specification
35	Digital Clamp Meter 夾式電流表		4	Workshop Facilities	Range: 0 - 40.00 A, 40.0 - 400.0 A Accuracy: 50 - 60 Hz 1.8%±5 counts 60 Hz - 400 Hz 3.0%±5 counts
36	Press welded special steel hydraulic crimping pliers pressure power tool 壓焊特殊鋼液壓壓接 鉗		1	Workshop Facilities	Maximum Output: 12T Crimping Range: 10-185mm ² (AL LUG), 16- 240mm ² (COPPER LUG)
37	Cable and Pipe Locator 電纜和管道定位器定 位儀		1	Workshop Facilities	Max. Output Power: 10W Active Frequencies: 16 Induction frequencies: 8
38	Insulation Resistance Tester 阻抗錶		2	Workshop Facilities	1. 100V : 0MΩ~100MΩ±(3%+5) 2. 250V : 0MΩ~99.9MΩ±(3%+5) 100MΩ~5GΩ±(5%+5) 3. 500V : 0MΩ~99.9MΩ±(3%+5) 100MΩ~5GΩ±(5%+5) 4. 1000V : 0MΩ~99.9MΩ±(3%+5) 100MΩ~5GΩ±(5%+5)
39	Battery system tester 蓄電池測試儀		1	Workshop Facilities	1. Cold start current a. CCA : Range 100~1700 b. IEC : Range 100~1000 c. EN : Range 100~1700 d. DIN : Range 100~1000 e. JIS : Range 100~1700 2. Battery internal resistance: Range 0.00mΩ~99.99mΩ 3. Battery Voltage: Range 4.5V~30V 4. 6V, 12V, 24V battery test 5. Startup load test 6. Charging system test 7. Maximum load test
40	Distance Measuring Laser 雷射測距器		1	Workshop Facilities	Distance Measurement: Typical Measurement Tolerance : ±2.0 mm (±0.08 in) Maximum Measurement Tolerance: ±3.0 mm (±0.12 in) Range at target plate: 50 m / 165 ft

Item No. 編號	Tools/Equipment Description 工具/設備名稱		數量 (澳電最低的要求) Quantity (CEM Min. Reqmt.)	種類 Category	規格Specification
41	Metal/Wire detector 金屬探測器		1	Workshop Facilities	Accurate Detection : 5cm depth Up to 6 working hours
42	Digital K Type, Dual Inputs, Datalogger Thermocouple 雙輸入·數據記錄器 溫度錶		1	Workshop Facilities	Range: K type: -200~1370°C ; -328~2498°F Accuracy: ±0.3%+1°C, ±0.3%+2°F Resolution: 0.1°C; 0.1°F
43	Handheld Dry-Well 手持式干燥槽		1	Workshop Facilities	Range: 35°C to 375°C (95°F to 707°F) Heating times: 35°C to 375°C: 9.5 minutes Cooling times: 375°C to 100°C: 14 minutes
44	DC 0~30V,0~10A DC Power Supply 直流電源供應器		1	Workshop Facilities	Frequency: 50Hz Working Temperature: -10°C ~ 40 °C
45	DC Low Resistance Tester 直流低電阻測試儀		1	Workshop Facilities	Testing Rang: 0.1m - 1.999kΩ
46	Multifunction Process Calibrator 多功能調教器		1	Workshop Facilities	Source functions: Voltage, current, resistance, frequency, temperature Ramps: Slow ramp, Fast ramp, 25% step-ramp
47	Multi Function Calibrator 多功能校準器		1	Workshop Facilities	1.mA / mV ... V / °C (Pt100/1000, Ni100/1000, type J, L, T, U, K, E, S, R, B and N thermocouples) 2.Frequency and pulse generator 3.Ramp and step functions

Item No. 編號	Tools/Equipment Description 工具/設備名稱		數量 (澳電最低的要求) Quantity (CEM Min. Reqmt.)	種類 Category	規格Specification
48	True RMS Multimeter with Backlight and Temperature 萬用錶(帶背光和溫度 功能)		4	Workshop Facilities	Maximum voltage between any terminal and earth ground: 1000 V DC or AC RMS Fuse for mA inputs: 440 mA, 1000 V FAST Fuse Fuse for A input: 11 A, 1000 V FAST Fuse
49	PH METER 酸鹼度計		1	Workshop Facilities	pH Measuring Range : 0.00~14.00 mV Measuring Range : -499~499 mV
50	Digital Temperature Humidity Barometer 數字溫濕度大氣壓力 錶		1	Workshop Facilities	Air pressure range:30 - 110 kpa Temperature range: -20 - 60°C Humidity range: 0 - 100%RH
51	Direct Digital Synthesis (DDS) Signal Generator 直接數位合成 (DDS) 訊號產生器		1	Workshop Facilities	Sine wave frequency range: 0Hz - 12MHz Square-wave frequency range : 0Hz - 2MHz Triangle-wave frequency range : 0Hz - 2MHz Other wave frequency range : 0Hz - 2MHz
52	4-20mA Signal Generator 訊號產生器		1	Workshop Facilities	输出信号参数 1.电流 (mA) : 0~24mA 2.电压 (V) : 0~23V 3.无源信号 (XMT) : 0~24mA 4.24V回路检测 : 0~24mA 5.频率 (Hz) : 0~9999Hz 6.毫伏 (mV) : -10~110mV
53	Digital Pressure & Vacuum Gauge 數位壓力 and 真空表		1	Workshop Facilities	Range : -1 to 40 bar (-15 to 600 psi) Pressure Units : kPa, Kg/cm ² , inHg, mmHg, PSI, mbar, bar, Mpa Over pressure warning : 120% Measure speed : 0.2 - 10 Readings per second, user settable
54	Android USB Loop Resistor for HART Communicator 用於 HART 通訊器的迴路電阻(Android USB)		1	Workshop Facilities	






投標編號 Tender Ref. PLD-CS001/26/33
 附件一 - 工具與設備列表
 Attachment 1 - List of Tools and Equipment







Item No. 編號	Tools/Equipment Description 工具/設備名稱		數量 (澳電最低的要求) Quantity (CEM Min. Reqmt.)	種類 Category	規格Specification
55	Ultrasonic Flowmeter 超聲波流量計		1	Workshop Facilities	1.Linearity : 0.5% 2.Repeatability: 0.2% 3.Accuracy: ±1% of reading at rates>0.2 mps 4.Velocity : ± 32 m/s 5.Pipe Size: 15mm-6000mm
56	Electronic stethoscope 電子聽診器		1	Workshop Facilities	
57	Visual IR thermometer 紅外線溫度探測器		1	Workshop Facilities	1.Temperature measurement range : -10 °C to +250 °C (14 °F to 482 °F) 2.accuracy : ± 2 °C or ± 2 % 3.Infrared spectral band : 6.5 µm to 14 µm 4.Alignment of blended visual image and infrared heat map : NEAR: <23 cm (9 in) from target FAR: >23 cm (9 in) from target
58	Pressure Tester -0.9 ~ 60 Bar		3	Workshop Facilities	Pressure range:0.9 - 2 Bar Pressure range:0.9 - 60 Bar Pressure range:0.9 - 700 Bar
59	Power Air Turbo 供氣式呼吸防護具		1	Safety Equipment	1.防氣爆與防塵爆 2.符合EN 12941 TH2/TH3等級防護 3.風量範圍: 150公升/分鐘~230公升/分鐘
60	Aluminium mobile scaffolding working platform 鋁合金移動式鷹架工作平台		1	Safety Equipment	Max. Height according to EN1004 Outdoor< or equal to 8m Indoor< or equal to12m

投標編號 Tender Ref. PLD-CS001/26/33
 附件一 - 工具與設備列表
 Attachment 1 - List of Tools and Equipment



Item No. 編號	Tools/Equipment Description 工具/設備名稱		數量 (澳電最低的要求) Quantity (CEM Min. Reqmt.)	種類 Category	規格Specification
61	Protective Coverall 多功能防護服		50	Safety Equipment	1. 200 pcs in warehouse 2. use in multiple industries including agriculture (particulate aerosols only), industrial cleaning and maintenance, chemical processing, asbestos inspection, insulation laying, pesticide handling, pharmaceutical manufacturing, paint spraying, and more
62	Manual Winch with Tripod Stand 手動絞車帶三腳架		2	Safety Equipment	Capacity: 500kg(T); 135kg(W) Wire size: Dia. 5mm x 1 fall Note: T-Tripod; W-winch
63	GasAlert Extreme Chlorine (Cl2) Single Gas Detector 單一氣體檢測儀		2	Safety Equipment	Gas Detection: H ₂ S, SO ₂ , HCN, CO, NH ₃ , Cl ₂ , NO, NO ₂ , PH ₃ , ETO, ClO ₂ , O ₃ , O ₂
64	GasAlertMicroClipXT 4 Gas detector 多種氣體檢測儀		2	Safety Equipment	Gas Detection: O ₂ , LEL, H ₂ S, CO Battery life: 18 hours
65	Gas dedector 氣體測試器		2	Safety Equipment	Simple 2-button operation Any combination of LEL/O ₂ /CO/H ₂ S Audible, visual and vibrating alarms Fully certified Internal pump (optional) Datalogging capabilities (up to 6 months) Run-time up to 80 hours, when using low power LEL sensor (optional) Quick field calibration (optional) Lightweight Robust construction

Item No. 編號	Tools/Equipment Description 工具/設備名稱		數量 (澳電最低的要求) Quantity (CEM Min. Reqmt.)	種類 Category	規格Specification
66	Dead-man type personal alarm 靜止示警式個人警報器		4	Safety Equipment	<p>The job safety alarm (life-saving device) can detect the physical activity of the wearer, and the sound and light alarm will be automatically activated when the wearer's activity stops. In addition; the sound and light alarm can also be manually activated by the wearer in an emergency, which is simple to use. The alarm has a built-in high-sensitivity motion sensor that can identify the activity of the wearer.</p> <p>Features introduction:</p> <ul style="list-style-type: none"> · Automatic alarm or manual alarm. · High-brightness LED lights. · Low battery alarm. · High-sensitivity motion sensor.
67	Breathing apparatus for emergency 緊急呼吸器具		1	Safety Equipment	<p>Breathing protection: 15 min Material cylinder: steel Content / pressure / cylinder: 3 liter / 200 bar Low content warning: yes, audible Carrying: bag Colour: orange Features: automatic quick fire activation Corrosion: resistant nickel plated components Class: 2.2 UN-no.: 1002 (compressed air) Dimensions: L 520 x W 135 x H 340 mm Total weight: 7 kg Approvals: MED</p>
68	Portable Air Blower Fan 手提式軸流風機/抽風機		1	Safety Equipment	Volt: 220-240V 50Hz
69	Scott Modul+ Airline Trolley System 自給式及氣喉供氣式呼吸輔助器		1	Safety Equipment	<p>A compact and easy-to-use airline trolley system designed to provide portable clear air in restricted access areas Robust and reliable, stainless steel construction Designed to carry a pair of cylinders Proven 300 bar high performance pneumatics</p>