

Annex E Attached: Technical Sheet-ITB-FMF-ADE-20099-2025



الهيئة العامة للغذاء والدواء
ITB-FMF-ADE-20099-2025

INVITATION TO BID (ITB)
Supply and installation of a solar energy system=Ac in districts (Syam, Al-Bucala, Al-Khweibar, Marj-Al-Ghaydah, Al-Dhale, Zinjibar, Alaq, Al-Hawlah, Khor Makhor (contact WHO)

About the Field Medical Foundation:

The Field Medical Foundation is a comprehensive community-based, non-profit, developmental organization that seeks to pioneer in humanitarian action through its health, relief, and development services, which aims to improve community health and build capacity through projects and services provided with high-quality and high credibility.

تأسست المؤسسة الطبية الميدانية في
المؤسسة الطبية الميدانية مؤسسة غير ربحية متخصصة لتوفير خدمات طبية ذات جودة عالية في العمل الإنساني و
تلك غير حكومية المعيار الأول في الرعاية الصحية والتي تهدف إلى تحسين صحة المجتمع وبناء قدراته من خلال
المشاريع والخدمات الصحية ذات الجودة والعدالة الطبية.

Bid date : تاريخ :
: 19/10/2025

Tender
مقدم العرض

NO :ITB/FMF/ADE/20099/2025

Tarikh تسليم العطاء من قبل
المورد :
Bid submission date

2/11/2025

SUPPLIER Information :

Company name / Trading
الاسم التجاري / اسم الشركة

Contact person
الشخص الذي يتولى الاتصال به

E-mail
البريد الإلكتروني

Phone
هاتف

Mobile
هاتف الجوال

Address
العنوان

For any Information : PMF

Contact name
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Mohammed Ahmed

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الجمهورية العربية السورية - حلب - حي المزة - شارع المزة - رقم 103

Line item no.	Detailed Description	specification	Unit	Trade Name	Country of Origin	Remarks
1	Solar PV Modules 650 W	•Module capacity should not be less than 650 W at STC •Must conform to IEC 61215, 61730, 61701, 62716, ISO 9001, ISO 14001, and ISO 45001 certificates or equivalent. •The PV manufacturer should be approved as tier-1; •The module type shall be monocrystalline, n-type, TOP Con and bifacial dual glass. •Module efficiency: should not be less than 22%. •The PV modules junction box not less than IP68 & with 3 diodes. •Module Voltage: Not less than 1500 VDC (IEC). •VOC: -0.25% /C° or less. •Nominal operating cell temperature (NOCT): Not more than 45°C. •Tolerance of maximum power rating: 0-5 W. •Operating temperature: -40C° to 85C°. •Weatherproof DC rated MC4 connector & Fully Secured, not allowing for any loose connections & PID resistance. •Certificates and Data sheet of PV module that contains the P-V & I-V Curves, material and thickness of the frame and glass layer, all electrical and mechanical Data, Dimensions and Module area should be provided by bidders. •Performance warranty: Nominal power output 90% for 10 years, 80% for 25 years	PCS			
2	Solar PV Modules 710 W	•Module capacity should not be less than 710 W at STC •Must conform to IEC 61215, 61730, 61701, 62716, ISO 9001, ISO 14001, and ISO 45001 certificates or equivalent. •The PV manufacturer should be approved as tier-1; •The module type shall be monocrystalline, n-type, TOP Con and bifacial dual glass. •Module efficiency: should not be less than 22%. •The PV modules junction box not less than IP68 & with 3 diodes. •Module Voltage: Not less than 1500 VDC (IEC). •VOC: -0.25% /C° or less. •Nominal operating cell temperature (NOCT): Not more than 45°C. •Tolerance of maximum power rating: 0-5 W. •Operating temperature: -40C° to 85C°. •Weatherproof DC rated MC4 connector & Fully Secured, not allowing for any loose connections & PID resistance. •Certificates and Data sheet of PV module that contains the P-V & I-V Curves, material and thickness of the frame and glass layer, all electrical and mechanical Data, Dimensions and Module area should be provided by bidders. •Performance warranty: Nominal power output 90% for 10 years, 80% for 25 years	PCS			
3	Lithium-ion Batteries with Rack (LiFePO4) 5KW	•Type: Low-Voltage (LV) Lithium Iron Phosphate (LiFePO4) battery. •Nominal Energy: 5120 Who per piece. •Nominal Capacity: 100 Ah per piece. •Nominal Voltage: 51.2 V. •Operating Voltage Range: 40 - 58.4 V. •Max. Continuous Charge/Discharge Current: 150 Amps. •Max. Parallel Quantity: 15 batteries. •Cycle Life: More than 10,000 cycles at 25°C. •Protection Degree: not less IP52. •Product warranty shall be at least 5 years. •Installation Method: Can be wall-mounted or floor-mounted. Battery Chemistry: LiFePO4.	PCS			
		•Type: High-Voltage Lithium Iron Phosphate (LiFePO4) battery. •Technical Specifications •Battery Type: Lithium-ion battery system designed for rack installation. •Cell Chemistry: Lithium Iron Phosphate (LiFePO4). •Total System Energy: 157.6 kWh. •System Nominal Voltage: 563.2 V. •Operating Voltage: 475.2 to 633.6 V.				

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4	Lithium-ion Batteries with Rack (LiFePO4) 14kW	•Maximum Charge/Discharge Current: 140 A. •Peak Discharge Current: 200 A. •Recommended Depth of Discharge: 90%. •Cycle Life: At least 8,000 cycles. •System Dimensions (W x D x H): 555 x 776 x 1700 mm. •Approximate Weight: 1560 kg. •Ingress Protection (IP) Rating: not less IP20. •Communication Port: CAN2.0/RS485. •Operating and Storage Environment •Operating Temperature: •Charge: 0°C to 55°C. •Discharge: -20°C to 55°C. •Storage Temperature: 0°C to 35°C. •Humidity: 5-85% RH	PCS			
5	Hybrid Inverter (50 kW) Built-in MPPT Solar Charger controller	•Rated AC Input/Output Active Power (W): 50000 •The inverter shall produce pure sine wave form with provision for battery charger, and it can be configured individually or in parallel. •Battery Type: Lithium-ion. •Battery Voltage Range (V): 475.2 to 633.6 V •Max. Charging Current (A): Not less than 220. •Max. Discharging Current (A): Not less than 220. •Charging Strategy for Li-ion Battery: Self-adaption to BMS. •Number of Battery Input: Not less than 2. •Max. PV Input Power (W): Not less than 63000 •Max. PV Input Voltage (V): Not less than 850 •Start-up Voltage (V): Not more than 125. •MPPT Voltage Range (V): 250-850 or wider. •Rated PV Input Voltage (V): 1000 •No. of MPP Trackers/ No. of Strings MPP Tracker: Not less than 4/2+2+2+2. •Total Current Harmonic Distortion THDi: Less than 3. •Output frequency shall be 50 Hz. •Ingress Protection (IP) Rating: IP65. •Maximum efficiency should not be less than 96 % at full load. •The device should be integrated with LED indicators and LCD display. •It shall allow adjustment of battery voltage and charging current. •The device shall allow connection to grid and backup generator. •The device shall have two outputs to the loads (Back-up and Smart Loads).	PCS			
6	Hybrid Inverter (12 kW) Built-in MPPT Solar Charger controller	•Rated AC Input/Output Active Power (W): 12,000. •The inverter shall produce pure sine wave form with provision for battery charger, and it can be configured individually or in parallel. •Battery Type: Lithium-ion. •Battery Voltage Range (V): 40-60. •Max. Charging Current (A): Not less than 220. •Max. Discharging Current (A): Not less than 220. •Charging Strategy for Li-ion Battery: Self-adaption to BMS. •Number of Battery Input: Not less than 2. •Max. PV Input Power (W): Not less than 15,600. •Max. PV Input Voltage (V): Not less than 500. •Start-up Voltage (V): Not more than 125. •MPPT Voltage Range (V): 150-425 or wider. •Rated PV Input Voltage (V): 370. •Max. Operating PV Input Current (A): Not less than 26. •Max. Input Short-Circuit Current (A): Not less than 44. •No. of MPP Trackers/ No. of Strings MPP Tracker: Not less than 3/2+2+2. •Total Current Harmonic Distortion THDi: Less than 3. •Output frequency shall be 50 Hz. •Ingress Protection (IP) Rating: IP65. •Maximum efficiency should not be less than 96 % at full load. •The device should be integrated with LED indicators and LCD display. •It shall allow adjustment of battery voltage and charging current. •The device shall allow connection to grid and backup generator. •The device shall have two outputs to the loads (Back-up and Smart Loads). •Communication Interface: RS485/RS232/CAN •Monitoring: shall include Datalogger to be controlled and monitored online. •Operating Temperature Range: -40 to +60°C. •Derating Temperature: Not less than 45°C. •To be certified to meet at least CE and UL marking and complaint with IEC 62109. •Protections required: DC Polarity Reverse Connection Protection, AC Output Overcurrent Protection, Thermal Protection, AC Output Overvoltage Protection, AC Output Short Circuit Protection, DC Component Monitoring, Overvoltage Load Drop Protection, Ground Fault Current Monitoring, Power Network Monitoring, Island Protection Monitoring, Earth Fault Detection, DC Input Switch, DC Terminal Insulation Impedance Monitoring, Residual Current (RCD) Detection, Surge protection level.	PCS			

7	Split Air Conditioners 1.5T	▪Nominal Capacity: 1.5 tons (18,000 BTU/h). ▪Air Conditioner Type: Split (separate unit)T3. ▪Compressor Type: Rotary or Inverter. It is preferable to specify the required compressor type. ▪Cooling Capacity: 17,000 to 18,400 BTU/h, depending on the model. ▪Noise Level: Low, typically ranging from 40-56 dB. ▪Electrical Voltage: 220-240 V. ▪Frequency: 50 Hz. ▪Refrigerant Type: R32 or R410A. It is preferable to specify the required gas type to ensure environmental compatibility. ▪Control: Wireless remote control, with optional Wi-Fi control capability. ▪Filters: Washable high-density filter for removing dust and fine particles, with the option to add multiple filters (e.g., antibacterial or Vitamin C filter). ▪Additional Functions: ▪Self-cleaning feature for the indoor unit. ▪Turbo cooling technology. ▪Automatic restart system after a power outage. ▪Quiet sleep mode. ▪24-hour on/off timer. ▪4-way air swing. ▪Approved to EN1866 or Equivalent.	PCS			
8	Split Air Conditioners 3T	Nominal Capacity: 3 tons (36,000 BTU/h). ▪ Air Conditioner Type: Split type (separate indoor and outdoor units) T3. ▪ Compressor Type: Rotary or Inverter (Inverter type preferred for energy efficiency). ▪ Cooling Capacity: 35,000 – 36,800 BTU/h (depending on model). ▪ Noise Level: Low, typically ranging between 43 – 58 dB. ▪ Electrical Voltage: 220–240 V (Single Phase) or 380–415 V (Three Phase) depending on model. ▪ Frequency: 50 Hz. ▪ Refrigerant Type: R32 or R410A (R32 preferred for better efficiency and environmental compatibility). ▪ Control: Wireless remote control, with optional Wi-Fi control capability. ▪ Filters: Washable high-density air filter for dust and fine particles; option for multiple filters (antibacterial, Vitamin C, or deodorizing). ▪ Additional Features: ▫ Self-cleaning function for indoor unit. ▫ Turbo/fast cooling mode. ▫ Automatic restart after power failure. ▫ Quiet sleep mode. ▫ 24-hour programmable timer. ▫ 4-way air swing for uniform cooling. ▫ Automatic diagnosis and protection system.	PCS			
Delivery Date : تاريخ التسليم المقترح						
Name of authorized representative of the Supplier:						
Signature and Stamp:						