ANNEX I

TENDER SPECIFICATIONS

1. Description of the contract

The Directorate-General for European Civil Protection and Humanitarian Aid ("ECHO"), the Contracting Authority wishes to procure supply, installation and maintenance of photovoltaic equipment at the "ECHO" office in Maiduguri.
As "ECHO" is funding programs, hence monitoring them, and managing offices in high-risk environments, it is essential for the safekeeping of our teams and assets to operate in an informed environment. The subject of the contract is therefore information gathering on events, which could have an impact on our operations.

2. Timetable

Summary timetable	Date	Comments
Launch date	30/09/2022	
Site visit in Maiduguri	10/10 to 14/10/2022	
Last date on which clarifications are issued by ECHO	19/10/2022	
Deadline for submission of tenders	24/10/2022 11pm	
Tender opening session	25/10/2022	
Completion date for evaluation of tenders	04/11/2022	
Signature of purchase order	21/11/2022	

3. Number of lots

N/A

4. Participation in the tender procedure

Tenderers must not be in any of the exclusion criteria indicated in Section 8.1 of these tender specifications and must have the legal capacity to allow them to participate in this tender procedure (see Section 8.2.1).
Please note that any attempt by a tenderer to obtain confidential information or influence ECHO during the process of examining, clarifying, evaluating, and comparing tenders will lead to the rejection of his tender.

5. Presentation of the tenders

Tenders must comply with the following conditions:

5.1. Tenders must be submitted by email

The tender should be addressed to: Echo-Administation.Abuja@echofield.eu Subject: RFQ: 10889 – Supply, installation, and maintenance of photovoltaic equipment at the "ECHO" office in Maiduguri - Do not open before 25/10/2022

The tender must contain the administrative, technical, and financial documents in separate folders clearly indicating the content for each of them:

- **Administrative documents & technical offer**
    - The signed, dated and duly completed identification and capacity form in Annex V
    - The duly filled in, signed, and dated declaration on honour as requested in Section 8.1 and using the standard template found in Annex VI
    - The evidence listed in Section 8.2 (if requested)
    - The technical proposal of Annex II, providing all information requested in Section 6
- **Financial proposal**
    - One signed original of the financial proposal based on the format found in Annex III

5.2. Tenders should be drafted in English

It is extremely important that tenders be presented in the correct format and includes all documents necessary to enable the evaluation committee to assess it. Failure to respect these requirements will constitute a formal error and may result in the rejection of the tenders.

5.3. Contact between ECHO and the tenderers

Contacts between the contracting authority and tenderers are prohibited throughout the procedure save in exceptional circumstances and under the following conditions only:

- Before the final date for submission of tenders:

* At the request of the tenderer, the contracting authority may provide additional information solely for the purpose of clarifying the nature of the contract. Any requests for additional information must be made in writing only by email to: Echo-Administation.Abuja@echofield.eu.

Requests for additional information received less than five working days before the closing date for submission of tender will not be processed (for practical reasons).

* The contracting authority may, on its own initiative, inform the tenderer of any error, inaccuracy, omission, or any other clerical error in the text of the call for tenders.

* Any additional information including that referred to above will be sent simultaneously to all (tenderers who have requested the specification) (candidates invited to tender).

- After the opening of tender:

* If clarification is required or if obvious clerical errors in the tender need to be corrected, the contracting authority may contact the tenderer provided the terms of the tender are not modified as a result.

6. Date and place of implementation of the tasks as per the technical specification

Delivery address: at Maiduguri ECHO office (Jan Road, Central Maiduguri - residential area).

Delivered period: the implementation period is 30 days from PO signature.

A site visit will be organized for bidders wishing to find out about the surfaces to be covered and to best estimate the needs to be covered during the week of Oct 10th . Any requests for the visit must be made in writing only by email to: Echo-Administation.Abuja@echofield.eu and Adenike.ADEBANJO@echofield.eu.

7. Technical specifications

The technical specifications concern the design, supply, transport, installation, and maintenance of the photovoltaic solar installation at the ECHO office in Maiduguri. Please, see **Annex A**.

8. Exclusion and selection criteria

8.1. Exclusion criteria

Requirements

"ECHO" will exclude the offers of tenderers who fall in any of the situations listed in paragraphs 1 and 2 of Article 136 of the Financial Regulation[1]. There is a list of these situations in the declaration on honour (see Annex VI).

Documents to complete and provide

Tenderers shall provide a declaration on honour (Annex VI), duly signed and dated. This declaration states that the tenderer is not in none of the situations of Article 136 of the Financial Regulation.

Evidence to provide

The tenderer does not need to provide any evidence. However, "ECHO" reserves the right to request evidence of compliance with the selection criteria in any part of the procurement process.

8.2. Selection criteria

8.2.1. Legal capacity

Requirements

The tenderer needs to prove it is authorised to perform the contract under the national law as evidenced by inclusion in a trade or professional register, or a sworn declaration or certificate, membership of a specific organisation, express authorisation, or entry in the VAT register.

Documents to complete and provide

- Duly filled in and signed identification and capacity form (Annex V)

- Completed Section 1 of identification and capacity form (Annex V)

[1] Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union (available here).

Evidence to provide

- A copy of the VAT Registration document

- Registration certificate document

8.2.2. Economic and financial capacity

Requirements

The turnover of tenderer must exceed 40 000 000 NGN in the last closed year.

Documents to complete and provide

- Completed Section 2 of identification and capacity form (Annex V)

Evidence to provide

Financial statements of last closed year

If, for some exceptional reason which ECHO considers justified, the tenderer is unable to provide the references requested by the contracting authority, he may prove his economic and financial capacity by any other means which ECHO considers appropriate

8.2.3. Technical and professional capacity

Requirements

- The tenderer has signed at least **three contracts** in the last three years for the supply and installation of photovoltaic equipment with a minimum value of 5 000 000 NGN each.

Documents to complete and provide

- Completed Section 3 of identification and capacity form (Annex V)

Evidence to provide

- List of contracts (stating the name of the client, amount, duration, photovoltaic equipment installed…) that have accepted to serve as a reference and can be contacted

9. Evaluation of tenders and award criteria

9.1. Administrative compliance

"ECHO" will verify first if the tenderer has submitted all the documents in time as requested in Section 5.1 (administrative compliance).

It the tender is administratively compliant; "ECHO" will verify then if the tenderer is compliant first with the exclusion criteria (Section 8.1) and then with the selection criteria (Section 8.2). If the tenderer complies with these criteria, the tender will go to the technical evaluation.

9.2. Technical evaluation

An evaluation committee will score the technical offer (Annex II). Only offers that achieve a score of 70 or more are declared 'technically accepted' and therefore valid for financial evaluation and award.

Item number	**Criteria**	**Maximum point**	**Awarded score**
1	Compliance with the overall basic technical specifications	25	
2	Quality of the products	15	
3	Quality of the supply and installation of PV solar equipment	20	
4	Quality of the technical support and after sales services	10	
5	Ability to deliver on time and complete in the required time frame	10	
6	Quality of training	10	
7	Ability to perform swift maintenance	10	
TOTAL		**100**	

9.3. Financial evaluation and award criteria

The ECHO Office will award the contract under the best price-quality ratio. This ratio takes into account the price (stated in Annex III) and the score obtained in the technical evaluation (see Annex II). The award criteria is the following formula:

$$Score\ for\ tender = \frac{Cheapest\ price}{Price\ of\ tender\ X} \times Price\ weight + \frac{Total\ quality\ score\ X}{Quality\ maximum\ score} \times Quality\ weight$$

The maximum score for the technical offer is 100.

The tender with the highest mark will win the contract.

Annex A- TECHNICAL SPECIFICATION

Annex A- GENERAL INFORMATION

In preparation of the move , "ECHO" Maiduguri , has analysed the possibility of equipping with solar photovoltaic systems, office having irregular aces to electric energy resources.

The office will be equipped with a photovoltaic field of 25 Kwp (the supplier may adjust the capacity), 16.2 KWh Lithium-Ion batteries.

The below average load should be covered:

Equipment	Quantity	Daily schedule
Air conditioners 1500 W	4	10 h (from 8:00 to 17:00)
Ceiling fans	3	12 h (between 17:00 to 8:00)
Office post (1 laptop, 1 monitor + docking station + 1 UPS)	4	12 h
1APC UPS 1500 W	2	24 h
Printer MFP Canon	2	2 h (from 8:00 to 17:00)
VSAT internet satellite equipment	1	24 h
Water dispenser	2	24 h
Refrigerators	2	24 h
Television 42" LED	2	4h
Led light bulbs (internal et external)	20	24 h
Electrified concertina	50-100 square meters	24h

The technical specifications concern the design , supply, transport, installation, and maintenance of the photovoltaic solar installation in the ECHO office in Maiduguri. The solar installation will primarily comprise of:

- A photovoltaic field made up module
- Charge regulators
- Solar batteries
- Inverter
- Junction boxes and circuit breakers
- Economic light lamps (if necessary)
- Other accessories (cables plugs, switches, supports, etc)

The offer is not restrictive and has to include all the hardware necessary for the proper functioning of the solar photovoltaic installations. In addition to the supply of equipment , the offer also comprises the following:

- Packaging, transport, loading, unloading, insurance
- The installation and system start up on the site
- All testing required, including "in factory " equipment testing

- The drawing for the installation, documents and booklets necessary for the installation, use and maintenance of the systems
- The training to the ECHO staff.
- 1 year guarantee of all equipment
- All necessary interventions and repairs during the period of guarantee.
- All necessary preventive maintenance services during the period of warranty.

The completion period for the project is 30 days from the signature of the contract.

- In his tender, the tenderer must provide the technical description of hardware, all the supporting documents requested and the proposed benefits as specified in this document.

Implementation of the contract

- A coordination meeting will be held in Maiduguri at the beginning of the contract.
- The contractor is required to submit the following for approval by the project coordinator:
    - A detailed timetable of project execution.
    - The CV of two site foremen.

In addition to the above project-specific requirements , the contractors shall also:

- Ensure they are covered by the following insurances during the period of implementation the project:
    - Workers compensation Insurance
    - General liability insurance
    - Contractors' equipment insurance
- Ensure work performed meets all applicable code requirements especially if the project requires any civil works activities.
- Dispose of any removed equipment in an appropriate manner, including the restoration of any electrical wiring.

TECHNICAL SPECIFICATIONS

1. Photovoltaic modules

- PV modules must be composed of silicon cells in mono-or poly-crystalline (technical documentation to be provided).
- PV modules must be certified for a conformity with IEC standards.
- All PV modules must be of the same type (same peak power, same technology and same manufacturer).
- Each module must be clearly and permanently labelled with an indication of the following: the manufacturer's name or model number, the serial number, the maximum system voltage, peak power (Wp, tolerance +/-), current and voltage at the maximum power point 5MPP), open-circuit voltage and short-circuit current.
- The PV module must be equipped with waterproof connection box IP54 (or higher standard).
- The connections in the PV module junction box must clearly indicate the positive and negative poles preferably by using the red and black conventional colours.

- Each PV module must be protected from the overloads, over-voltage, and reverse polarity by protection systems.
- PV modules must be mounted in or on an aluminium or stainless steel to guarantee the physical resistance of the structure.
- Warranty on the PV modules: minimum of ten years on the performance and components.

2. Batteries

- Batteries will be Lithium-Ion batteries (technical documentation to be provided).
- Manufacturing standard: EN/IEC/ISO 9001/9002.
- Charge compliant with standard IEC 896-1
- Warranty on the batteries: Guarantees performances: 6 years
- Assembly and installation:
  - Each battery will be engraved with the manufacturing date.
  - All the batteries will be transported and will be delivered pre-loaded to 100%.

3. Charger regulator (CR)

The function of the CR is the protection of all batteries , the prevention of overload while providing protection against excessive discharge.

- The regulator necessary for the charge of the batteries is correctly dimensioned with a power reserve of at least 25% and of MPPT technology (Maximum Power Point Tracker).
- Regulator has to be compatible with the type of battery choses in order to provide for an optimum life of cycle.
- Indicators (of the type of LED) indicating at least the state of charge the battery, overload and short-circuit.
- The case of the charge regulator will be of the type IP 54 waterproof to prevent the entry of insects, dust and be corrosion resistant.
- Warranty on the charger: Minimum lifetime 2 years.

4. Inverter

- Total protection will be provided against reverse polarity, over-voltage, and short circuit and over temperature. The inverter has to be provided with an internal input breaker.
- The inverter will be well dimensioned with a reserve of power of at least 25% in relation of 25 kWp system.
- Self-consumption less than 2%.
- In conformity with the standard EC CIS ISO.
- Must clearly be labelled with at least the following information : the manufacturer's name and the model, serial number, voltage and current , battery charge condition, connection, and polarity points.
- Warranty on the Inverter: Minimum lifetime 2 years.

5. Batteries enclosure, charge regulators and inverters enclosures

- The batteries, regulator, and inverter should be installed in ventilated cabinets and padlocked. The design will prevent entry of water, small animals, insects, and dust. They must avoid the risk of short-circuit and of electrocution.
- A clearly readable warning label will warn eh user of the dangers of the risk of electric shocks. This label will be in English.

- Batteries will being independent cabinet. Regulators and inverters can be in common cabinet.
- Cabinets will be of industrial standard ISO 9001/9002.
- Equipment must be easily accessible for the control and maintenance technicians.

6. Protection and cabling

The general protection system will be of Earth separate neutral type (TN-Ph).

The cables going from the photovoltaic panels to the connection boxes, the connection boxes towards the regulator then to the batteries and finally to the inverter must be distinguished, including:

- Sections will be calculated to minimize the voltage losses (acceptable voltage losses less than 3%).
- Cables are flexible and resistant to UV and atmospheric conditions.
- The size and the length of the cables have thus carefully to be choses to reduce as much as possible the voltage losses.

7. Staff training

The staff training is an important element providing durability to the system. It allows the beneficiary to operate efficiently and safely the system. It allows them to identify existence abnormal situations, correct simple malfunctions or call for maintenance intervention and prevent further damage.

- The company will provide the training of the staff ECHO in Maiduguri (at least three people).
- The training will cover all the operations which have to be carried out as part of normal use and routine maintenance by the recipient, including the concepts which are necessary to detect the existence of a problem which should be pointed out to the maintenance company.
- Training will be done before the provisional acceptance; it will include hands on training.
- The company will develop in English, a procedure handbook illustrated with pictures or drawings.

8. Corrective maintenance during warranty period

Frequency: The maintenance will be taken in place upon ECHO's request in case there is need of a technical assistance

Diagnosis and repair the errors into the ECHO infrastructure

Assists in the preparation of the report to the manufacturer and if the replacement of the defective part is required by the warranty, the installation of spare parts sent by the manufacturer and which can be replaced by the customer without invalidating the warranty

Upon a call from the customer indicating an operating anomaly or failure, the service provider will send a technician to troubleshoot the equipment as quickly as possible and the interventions will be taken in place within maximum 2 (two) working days after the ECHO's request.

All intervention requests will be made by the ECHO contact person. The Contractor will provide a technician for this purpose and the transport of the Contractor's staff to the office is the responsibility of the Contractor

The Contractor will submit a report after each intervention, the report will mention the date and time of the intervention, the name of the technician / engineer, the description of the intervention and the equipment concerned.