



ANNOUNCEMENT OF TENDER: SUPPLY OF SOLAR ELECTRICITY EQUIPMENT --- MINI-GRID

Tender No – 66-0001

Energy For Opportunity is a Sierra Leone based Non-Governmental Organisation with the mission, to implement solar electricity projects in West Africa. Focusing on improving livelihoods, health and education using a social enterprise model, with a heavy emphasis on making projects both financially independent and self-sustaining after the initial funding period.

Energy For Opportunity is partnering with West African Education and Medical Mission and United Brethren Church to implement an ECREEE funded project. The project entitled “**Empowering Sierra Leone's Health Sector - A Mini-Grid Co-Management Model**”. It aims to contribute to the strengthening of a Resilient Health System in Bonthe District in Sierra Leone. The project consists of the installation of a solar electricity powered mini-grid in Matru Jong, Bonthe District. This mini-grid will provide power to the United Brethren Hospital with excess power being sold to the community to allow for long term sustainability of the system, while also contributing to the development of the town.

TERMS AND CONDITIONS OF SUPPLY

Objective:

Procurement of a high reliability solar electricity system to provide electrical power to the hospital and Matru Jong community.

1. General remarks and special condition

- All offered commodities must be sound, fair and in merchantable quality. The quality must be in line with the specifications stated in this tender.
- All offered works and services must meet the highest applicable standards in the country of execution and show proof of professional workmanship.
- Language of the procedure: All written communications for this tender procedure and contract must be in English.
- Energy For Opportunity holds the right to make changes to the technical specifications. Quantities may also be increased or decreased to maximise the system size within the available budget.

- In case an alternative to the specified items is offered, this must be clearly indicated and extensively documented.
- Only one tender per tenderer: A company may not tender for a given contract both individually and as a member of a joint venture/consortium. Participation by a tenderer in more than one tender for a contract will result in the disqualification of all those tenders for that contract in which the party is involved. The same company may only participate as subcontractor in different tenders if that is justified by the specific nature of the market and cleared by the Contracting Authority.
- Tender expenses: The tenderer will bear all costs associated with preparing and submitting the tender. The Contracting Authority will not be responsible or liable for such costs, whatever the conduct or outcome of the procedure. The Contracting Authority will neither be responsible for, nor cover, any expenses or losses incurred by the tenderer through site visits and inspections or any other aspect of its tender.
- The following timetable is set forth:

	DATE	TIME
Deadline for requesting any additional information from the Contracting Authority	January 26, 2017	17:00
Last date on which additional information are issued by the Contracting Authority	January 30, 2017	17:00
Deadline for submitting tenders	February 3, 2017	12:00
Tender opening session	February 3, 2017	15:00
Notification of award to the successful tenderer	February 10, 2017	17:00
Signature of the contract	February 17, 2017	17:00

2. General Technical Specifications

Please refer to Annex II for a complete list of technical requirements and instructions on how to submit the formal offer.

3. Samples/Pictures/Specifications

The following technical information needs to be provided with the bid:

- Technical information on each of the primary components
- Basic two line schematic of the proposed system
- Complete itemised bill of materials

4. Delivery conditions

The materials in this Tender must be completely delivered in single shipments. All supplies to be delivered to:

CIF Freetown port

All materials must be delivered containerized in Carriers-Own-Container to the port of Freetown. All deliveries based on CIF (Incoterms 2010). Cost for transportation must be stated separately.

5. Advance Cargo Declaration (ACD)

The Government of Sierra Leone has implemented the Advance Cargo Declaration (ACD) procedure for the carriers operating within the country to comply with the provisions of the International Ship and Port Facility Security (ISPS) code. They have contracted Transport and Ports Management Systems (TPMS) to regulate the process which will be applicable for both Import and Export.

Advance Cargo Declaration is mandatory for Exports from and Imports into Sierra Leone. In order to comply with Sierra Leone customs rules and regulations, the successful tenderer (as Shipper of the ordered material) is responsible for the obtaining of the Entry Summary Number (ENS). The 13-digit ENS must be stated as reference number in the shipping instructions (SI), which as per the requirements has to be printed on the bill of lading.

All fees all costs which arise from the application of the ENS number must be borne by the successful tenderer. The fees for 20ft-Container are 105 USD and for 40ft-Container 210 USD. Refer to following link for more information: <http://www.acd-sl.com/>

6. Delivery schedule – in calendar days:

All materials in this Tender shall be delivered within 90 calendar days after acceptance of the purchase order.

Please indicate within your offer:

- o the realistic time needed to prepare the materials for shipment (FOB)
- o the realistic time for the sea freight to the harbour of Freetown

7. Tender prices

All prices have to be indicated in United States Dollars (USD\$) currency only. The analysis of the offers will be performed on a United States Dollars (USD\$) basis.

The tender price must cover all items as described in the tender documents. All sums in the Bill of Quantities and Price Schedule, the questionnaire and other documents must also be expressed in USD.

No payment will be made for items which have not been costed; such items will be deemed to be covered by other items on the Bill of Quantities and Price Schedule.

If a discount is offered by the tenderer, it must be clearly specified in the Bill of Quantities and Price Schedule. The discount must be quoted for all goods.

8. Inspection

The provided items and executed goods will be inspected for quality by an independent surveyor company or by Energy For Opportunity staff members upon delivery to Freetown. Goods not meeting agreed quality will be rejected. In case goods are rejected, the Supplier will contractually be obliged to pay already incurred fees for rejected goods or works and ensure the items are replaced if the works are properly executed, including the necessary repairs are performed following the goods that were not accepted.

9. Ordering Party

Energy For Opportunity
95D Regent Rd, Lumley,
Freetown,
Sierra Leone

10. Documents

Following documents must be submitted before tender closing:

- Written/printed quotation on letter headed paper including technical data and presentation of the offered items
- Technical documentation as indicated in Annex II
- Component technical documentation
- System schematic if required to illustrate design

Following documents must be submitted with the invoice:

- Original invoice addressed to Ordering party
- Copy of all technical documentation

Please note: Expenses for commercial courier are to be covered by the bidder/supplier where applicable.

11. Payment Conditions

A performance based payment schedule, based on executed milestones will be negotiated with the winning bidder. Payment will be executed within ten working days, per bank transfer following reception of the relevant documentation as indicated in paragraph 10.

12. Penalties

Delivery schedule will be negotiated and fixed in order, but will be based on the delays indicated in the offers. In the event of delay in delivery caused other than by force majeure, Energy For Opportunity is entitled to make use of a penalty of 5/1000 per calendar day of the total value of the works and supplies still to be executed and delivered. The penalty will be deducted from the invoice. In the event of incomplete delivery caused by the Supplier, Energy For Opportunity is entitled to deduct the losses from the invoice. In case of damage or malfunctioning caused by inappropriate execution or handling, Energy For Opportunity reserves the right to deduct from the relevant order sum an amount according to the variance to the requested specification. In case the quality is not in line with specifications initially agreed by both sides, the Supplier has to inform Energy For Opportunity as soon as possible. Goods or executed works not meeting agreed quality can be rejected by Energy For Opportunity, but if Energy For Opportunity accepts these a deduction from the order sum and a penalty will be negotiated.

13. Tender Conditions

The offer must be valid 30 calendar days from tender closing date **at minimum**.

Quotations must specify all details according to the tender text. Incomplete offers and offers that arrive later than the deadline for reply will be automatically excluded.

Tender Packages can be sent to the following locations.

1 - Hardcopies

Energy For Opportunity
c/o Peter George, Procurement/Logistics Officer
95D Regent Rd,
Lumley,
Freetown,
Sierra Leone

2 - Electronic Versions

Peter George
peter@energyforopportunity.org

Offers sent to Freetown, Sierra Leone or electronically have to reach the address by **February 3, 2017 at 12:00 local time**.

Please note: Expenses for commercial courier are to be covered by the bidder/supplier.

In case of any questions contact Peter George, Tel: +232 (0)77 701970 at email address: peter@energyforopportunity.org or Simon Willans, Tel: +232 (0)76 506753 at email address: simon@energyforopportunity.org

ANNEX I Supplier Identification

VI.1 General Information

Name of Company	
Legal Form	
Established since	
Postal Address	
Physical Address	
Phone Number	
Fax Number	
E-Mail	
Website	
Name of General Manager	
Contact Person(s) Sales & Marketing	
Contact Person (s) Freight/Shipping/Logistics	
Number of employees	
Annual Turnover	
Range of Products offered	

***ANNEX : II* TECHNICAL SPECIFICATIONS + TECHNICAL OFFER**

Contract title : Supply of solar electricity equipment - mini-grid

Publication reference : 66-0001

Column 1-3 should be completed by the Contracting Authority

Column 4-5 should be completed by the tenderer

Column 6 is reserved for the evaluation committee

Annex II - the Contractor's technical offer

The tenderers are requested to complete the template on the next pages:

- Column 3 is completed by the Contracting Authority shows the required specifications (not to be modified by the tenderer),
- Column 4 is to be filled in by the tenderer and must detail what is offered (for example the words “compliant” or “yes” are not sufficient)
- Column 5 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offered specifications.

General System Outline:

The project requires a complete solar electricity system which will provide reliable power to the primary hospital facility, with excess electricity provided to the community mini-grid for both streetlights and household consumption. Overall system and component requirements are listed below. Load data is not being provided as the overall system scope is budget driven so the intent is to seek the best value in terms of overall system size, electrical output and reliability based on minimum project requirements and overall budget limitations.

System Configuration :

- System Location ; Matru Jong, Bonthe District Sierra Leone --- 7°36'21.23"N / 12°10'3.81"W
- either AC or DC coupled systems are acceptable
- multicluster or single system configurations are acceptable
- system output ; 230V/380V, 3P, 50hZ
- system must allow for integration with an existing 36kVA generator
 - generator will only be used for hospital loads and to charge batteries and not to supply the community grid
 - auto generator start function will not be used; manual start
- overall system design must meet the requirements of US NEC Code, Section 690 with specific reference to;
 - cable sizing
 - overcurrent protection and disconnect sizing and location
 - system and equipment grounding
- three stage load shedding is required based on either battery voltage or state of charge
 - Hospital --- 50A, 3P Output
 - Streetlights --- 32A, 1P Output
 - Mini Grid Households --- 100A, 3P Output
- Minimum of 100kWp solar array
- Minimum of 70kW battery inverters at continuous supply rating
- Minimum of 10,000A-hr (C/20) @ 48V battery capacity
- Customer to provide the following and should not be included in the quotation; AC electrical materials, conduit/screws/etc, battery rack and PV mounting structure.
 - PV mounting structure to be fabricated locally using galvanised posts and aluminum mounting struts contacting the panels. See Annex III for a representative representation of the mounting structure.

Evaluation Criteria :

- Overall system price
- Overall system price per system size, measured in \$USD / Array kWp
- Lifecycle cost of the battery, measured in \$USD / MW-hr

1. Item #	2. Qty	3. Specifications Required	4. Specifications Offered	5. Notes, remarks, ref to documentation	6. Evaluation Committee's notes
1	Min 100kWp total	Solar Modules <ul style="list-style-type: none"> • mono or poly are acceptable 			
		<ul style="list-style-type: none"> • positive power tolerance 			
		<ul style="list-style-type: none"> • junction box with integrated cables and connectors --- Min IP65 rated 			
		<ul style="list-style-type: none"> • Warranty --- a-10 Year material and workmanship, b-25 year output to min 80% of rated Pmax 			
		<ul style="list-style-type: none"> • Must include necessary PV connectors and cable for array to charge controller or string inverter connections 			
2	Min 70kW total	Battery Inverters			
		<ul style="list-style-type: none"> • AC output voltage --- 230Vac - Pure Sine (adjustable) 			
		<ul style="list-style-type: none"> • AC output frequency --- 50Hz 			
		<ul style="list-style-type: none"> • Efficiency --- Min 92% 			
		<ul style="list-style-type: none"> • AC Input Range --- 170-290Vac 			
		<ul style="list-style-type: none"> • Field upgradeable firmware -- - Required 			
		<ul style="list-style-type: none"> • Warranty --- 5 years from manufacture • Include spare parts including internal boards and fans if applicable --- 10 year operations 			

1. Item #	2. Qty	3. Specifications Required	4. Specifications Offered	5. Notes, remarks, ref to documentation	6. Evaluation Committee's notes
3	Min 10,000A-hr @ 48Vdc	Battery Bank <ul style="list-style-type: none"> • deep cycle battery 			
		<ul style="list-style-type: none"> • valve regulated GEL 			
		<ul style="list-style-type: none"> • operating temperature --- Up to 45C 			
		<ul style="list-style-type: none"> • must conform to IEC 61427 (provide certification) 			
		<ul style="list-style-type: none"> • Cycle life --- Minimum of 2500 @ 50% DOD @ 1.8Vpc 			
		<ul style="list-style-type: none"> • Terminal --- must be threaded fastener (provided) 			
		<ul style="list-style-type: none"> • Must include battery series connectors based on --- Rating overall system configuration 			
		<ul style="list-style-type: none"> • Must include battery cable and materials to make cables including cable lugs and heat shrink tube 			
		<ul style="list-style-type: none"> • Warranty --- 24 months from shipping (provide details) 			
4	Min 100kW Total Capacity	String Inverters / Charge Controllers <ul style="list-style-type: none"> • Compatible with overall system design 			
		<ul style="list-style-type: none"> • Field upgradeable firmware -- - Required 			
		<ul style="list-style-type: none"> • Warranty --- 5 years from manufacture 			

		<ul style="list-style-type: none"> • Include spare parts including internal boards and fans if applicable --- 10 year operations 			
5	1 Set	System Accessories			
		<ul style="list-style-type: none"> • Include required control module(s) for system programming 			
		<ul style="list-style-type: none"> • Include all necessary communication cables (ie Cat5 or 6, etc) 			
		<ul style="list-style-type: none"> • Include required system components for remote monitoring (GSM modem will be available) 			
		<ul style="list-style-type: none"> • Include Type II surge protection either for key components or at the system level 			

ANNEX : III PV MOUNTING STRUCTURE

