

## TECHNICAL PROPOSAL FOR THE SOLAR ENERGY (PV) SYSTEM FOR MONGUNO HUMANITARIAN HUB

### PROJECT DESCRIPTION:

- 1 Design, install and commission modular hybrid solar power (PV) system with each module having power output of 40kw. The module(s) will be installed at Monguno Humanitarian Hub, Monguno Local Government Area, Borno State, Federal Republic of Nigeria.
- 2 Depending on the price of each module the winning bidder shall offer, IOM shall determine the number of modules to be purchased to address primarily the Critical Load Schedule (Annex 1) of Monguno Humanitarian Hub.
- 3 Each module should have sufficient power to support the load connected to it for 8 to 12 hours, can be recharged using solar panels not more than 4 hours and not more than 3 hours using the generator.
- 4 The project deliverables shall include the appropriate racks for the batteries, anchoring solution for the solar panels, cables and connectors needed to connect the modules to the circuit panel board of the hub located at the Generator House (see site development plan for details). The batteries, charge controllers and inverters shall be installed at the bunker of the hub. The solar (PV) panels shall all be installed at the roof of the accommodation blocks of the hub. The winning bidder and IOM technical staff shall work together in connecting the solar power modules to the loads as well as during the testing and commissioning of the modules.

No.	Description	Bidder's Offer						
		Description/Specification	Country of Manufacture	Quantity	Unit	Unit Cost (NGN)	Total Amount (NGN)	Warranty Period (Years)
<b>Required Details for Each Module:</b>								
1	<b>Solar Panel Details</b> (specify brand/model, capacity, etc.). Provide literatures about the technical specifications of the solar panels, as Annex A to the bid.						0	
2	<b>Anchoring/Installation of Solar Panels.</b> Provide details of the solution including technical drawings as Annex B to the bid.						0	
3	<b>Inverter</b> (specify brand/model, capacity, etc.). Provide literatures about the technical specifications of the inverters, as Annex C to the bid.						0	
4	<b>Charge Controller</b> (specify brand/model, capacity, type, etc.). Provide literatures about the technical specifications of the charge controller, as Annex D to the bid.						0	
5	<b>Batteries</b> (specify brand, type, capacity per unit, etc.). Provide technical literatures about the detailed specification of the batteries as Annex E to the bid.						0	
6	<b>Racking solution for the batteries.</b> Provide as Annex F to the bid, the detailed technical drawings of the racking solution, taking into consideration the available space for them.						0	
7	<b>Cables and connectors to be used in connecting the components of the modules.</b> Provide technical literature of the cables and connectors to be used as Annex G to the bid.						0	

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8	Electrical cables and connectors to be used in connecting the module(s) to the electrical panel board of the humanitarian hub. Provide technical literature of the cables and connectors to be used as Annex H to the bid.						0	
9	<b>Earthing/Grounding solution.</b> Provide technical details of the earthing solution to be used including technical drawings of the solution and literature of the materials to be used as Annex I to the bid.						0	
10	<b>Cooling/Ventilation System.</b> Provide details of the colling/ventication system that will be used to support the module(s) including list and specification of the components and product literatures as Annex J to the bid.						0	
11	<b>Remote Monitoring.</b> System should be equipped with remote monitoring feature with its own stand-alone VSAT system with 1 year VSAT subscription. Bidder should provide details including brand and model of the equipment to be provided, the VSAT service provider and VSAT subscription plan packaged into the system.						0	
12	<b>Other Equipment/Component</b> Provide details of other equipment/component not provided in th elist above but are deemed necessary to ensure the proper functioning of the modules. Provide details including brand/make/models, dimensions, etc. Provide a separate list to provide more details, if necessary.						0	
13	<b>Logistics and Installation.</b> The bidder shall be fully responsible for transporting to the job site, all materials/equipment needed to complete the project. All components to be importated should be priced DAP-Monguno. Lodging and food of the winning bidderstaff who will be assigned to this project shall be fully covered by the winning bidder. The winning bidder shall coordinate with IOM in securing the tax exemption of components that will be used in the project. IOM shall be responsible for the acquisition of the tax exemption of the shipment. The winning bidder shall be responsible in clearing the shipment from the customs.						0	
<b>TOTAL PRICE FOR ONE (1) MODULE</b>							<b>0</b>	

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Prepared by: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Date: \_\_\_\_\_