



**REQUEST FOR QUOTATION (RFQ)**  
**Procurement, Supply, Delivery and Installation of Solar Power Systems (Off-Grid) for Selected Communities and Households in Six (6) Previously Acknowledged Moro Islamic Liberation Front Camps (MILF) Camps**

	DATE: December 6, 2018
	REFERENCE: <b>PHL-RFQ-2018-238</b>

Dear Sir / Madam:

We kindly request that you submit your quotation for the **Procurement, Supply, Delivery and Installation of Solar Power Systems (Off-Grid) for Selected Communities and Households in Six (6) Previously Acknowledged Moro Islamic Liberation Front Camps (MILF) Camps**, as detailed in Annex 1 of this RFQ. When preparing your quotation, please be guided by the form attached hereto as Annex 2.

Quotations may be submitted on or before **17 December 2018, 11:00 AM Philippine Time**, and via ☒ **e-mail**, ☐ **courier mail** or ☐ **facsimile** to the address below:

**United Nations Development Programme**  
**15<sup>th</sup> Floor, North Tower, Rockwell Business Center Sheridan**  
**Sheridan Street corner United Street, Brgy. Highway Hills,**  
**Mandaluyong City**  
**[procurement.ph@undp.org](mailto:procurement.ph@undp.org)**

Quotations submitted by email must be limited to a maximum of 5MB, virus-free and no more than 3 email transmissions. They must be free from any form of virus or corrupted contents, or the quotations shall be rejected.

It shall remain your responsibility to ensure that your quotation will reach the address above on or before the deadline. Quotations that are received by UNDP after the deadline indicated above, for whatever reason, shall not be considered for evaluation. If you are submitting your quotation by email, kindly ensure that they are signed and in the .pdf format, and free from any virus or corrupted files.

Please take note of the following requirements and conditions pertaining to the supply of the abovementioned good/s:

Delivery Terms [INCOTERMS 2010] (Pls. link this to price schedule)	<input type="checkbox"/> FCA <input type="checkbox"/> CPT <input type="checkbox"/> CIP <input checked="" type="checkbox"/> <b>DAP</b> <input type="checkbox"/> Other
Customs clearance, if needed, shall be done by:	<input checked="" type="checkbox"/> <b>UNDP</b> <input type="checkbox"/> Supplier/Offeror <input type="checkbox"/> Freight Forwarder
Exact Address/es of Delivery Location/s (identify all, if multiple)	<p>Suppliers must quote prices by Lots according to:</p> <ul style="list-style-type: none"> <li>- <b>LOT 1 – Camp Abubakar, Mindanao: DAP off-loaded, 117 beneficiaries located in Maguindanao, Philippines (Incoterms 2010).</b></li> <li>- <b>LOT 2 - Camp Rajamuda, Mindanao: DAP off-loaded, 117 beneficiaries located in North Cotabato, Philippines (Incoterms 2010).</b></li> <li>- <b>LOT 3 - Camp Omar, Mindanao: DAP off-loaded, 117 beneficiaries located in Maguindanao, Philippines (Incoterms 2010).</b></li> <li>- <b>LOT 4 - Camp Badre, Mindanao: DAP off-loaded, 117 beneficiaries located in Maguindanao, Philippines (Incoterms 2010).</b></li> <li>- <b>LOT 5 - Camp Bilal, Mindanao: DAP off-loaded, 117 beneficiaries located in Lanao del Norte and Lanao del Sur, Philippines (Incoterms 2010).</b></li> <li>- <b>LOT 6 - Camp Bushra, Mindanao: DAP off-loaded, 117 beneficiaries located in Lanao del Sur, Philippines (Incoterms 2010).</b></li> </ul> <p>Please refer to Annex I for complete distribution lists by Lots.</p> <p>Country of Origin: to be stated by bidders in Section 6, Price and Delivery schedule.</p> <p>Please note that the approximate date of PO placement is estimated to be at any time not later than December 2016.</p>
UNDP Preferred Freight Forwarder, if any	N/A Bidders may select as per their preference
Distribution of shipping documents (if using freight forwarder)	Responsibility of bidder
Latest Expected Delivery Date and Time (if delivery time exceeds this, quote may be rejected by UNDP)	<input checked="" type="checkbox"/> <b>LOT 1 – 6 : Sourcing, production, consolidation, delivery, in-country distribution and entire installation and training to be completed in a maximum of 75 calendar days from PO placement date.</b>
Delivery Schedule	<input checked="" type="checkbox"/> <b>Required</b> <input type="checkbox"/> Not Required

Packing Requirements		
Mode of Transport	<input checked="" type="checkbox"/> AIR	<input checked="" type="checkbox"/> LAND
	<input checked="" type="checkbox"/> SEA	<input type="checkbox"/> OTHER
Preferred Currency of Quotation	<input type="checkbox"/> United States Dollars <input type="checkbox"/> Euro <input checked="" type="checkbox"/> Local Currency : Philippine Peso	
Value Added Tax on Price Quotation	<input type="checkbox"/> Must be inclusive of VAT and other applicable indirect taxes <input checked="" type="checkbox"/> Must be exclusive of VAT and other applicable indirect taxes <i>UNDP in Philippines is exempt from VAT for goods but not for services. Bidders to quote without VAT and indicate the VAT amount separately if applicable on services.</i>	
After-sales services required	<input checked="" type="checkbox"/> Warranty on Parts and Labor for minimum period of 1 year <input checked="" type="checkbox"/> Technical Support <input checked="" type="checkbox"/> Provision of Service Unit when pulled out for maintenance/ repair <input type="checkbox"/> Others	
Deadline for the Submission of Quotation	<b>Monday, December 17, 2018 , 11:00 a.m., Philippine Time</b>	
All documentations, including catalogs, instructions and operating manuals, shall be in this language	<input checked="" type="checkbox"/> English <input type="checkbox"/> French <input type="checkbox"/> Spanish <input type="checkbox"/> Others	
Documents to be submitted	<input checked="" type="checkbox"/> Duly Accomplished Form as provided in Annex 2, and in accordance with the list of requirements in Annex 1; <input checked="" type="checkbox"/> A statement whether any import or export licenses are required in respect of the goods to be purchased including any restrictions on the country of origin, use/dual use nature of goods or services, including and disposition to end users; <input type="checkbox"/> Confirmation that licenses of this nature have been obtained in the past and an expectation of obtaining all the necessary licenses should the quotation be selected; <input checked="" type="checkbox"/> Quality Certificates (ISO, etc.); <input checked="" type="checkbox"/> Latest Business Registration Certificate ; <input checked="" type="checkbox"/> Latest Internal Revenue Certificate / Tax Clearance; <input checked="" type="checkbox"/> Manufacturer's Authorization of the Company as a Sales Agent (if Supplier is not the manufacturer), [Note: Sub-contracting or re-selling is not allowed for this engagement]; <input checked="" type="checkbox"/> Certificate of Exclusive Distributorship in the country (if applicable, and if Supplier is not the manufacturer); <input type="checkbox"/> Evidence/Certification of Environmental Sustainability ("Green" Standards) of the Company or the Product being supplied; <input type="checkbox"/> Complete documentation, information and declaration of any goods classified or may be classified as "Dangerous Goods". <input checked="" type="checkbox"/> Patent Registration Certificates (if any of technologies submitted in the quotation is patented by the Supplier); <input checked="" type="checkbox"/> Written Self-Declaration of not being included in the UN Security Council 1267/1989 list, UN Procurement Division List or other UN Ineligibility List; <input checked="" type="checkbox"/> Past experience - Bidders to provide a copy of at least two purchase orders/ contracts with similar scope of work from past three years. <input checked="" type="checkbox"/> Office(s) and warehouse(s) located within the Philippines	

	<input checked="" type="checkbox"/> Bidder will be required to submit a statement of all ongoing and completed government and private contracts indicating the project description, total amount per contract, and contact details (i.e., name of focal person, email and number) of the contracting party or procuring entity. Should have satisfactorily completed, within five (5) years upon receipt of bid documents, contract(s) similar to the Project with a contract cost of at least ten million pesos (PHP10,000,000.00). <input checked="" type="checkbox"/> The supplier's Team Leader must have licensed PV Engineer with at least five (5) years' experience in solar panel installation. All other PV technicians must have at least three (3) years of experience in solar panel installation, preferably with the knowledge on the language and culture of the area.
Period of Validity of Quotes starting the Submission Date	<input type="checkbox"/> 60 days <input type="checkbox"/> 90 days <input checked="" type="checkbox"/> <b>120 days</b>  In exceptional circumstances, UNDP may request the Vendor to extend the validity of the Quotation beyond what has been initially indicated in this RFQ. The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Quotation.
Partial Quotes	<input checked="" type="checkbox"/> <b>Not permitted</b> <input type="checkbox"/> Permitted <i>[pls. provide conditions for partial quotes, and ensure that requirements are properly listed to allow partial quotes (e.g., in lots, etc.)]</i>
Payment Terms	<input checked="" type="checkbox"/> <b>100% upon complete delivery of goods</b> <input type="checkbox"/> Others
Liquidated Damages	<input checked="" type="checkbox"/> <b>Will not be imposed</b> <input type="checkbox"/> Will be imposed under the following conditions : Percentage of contract price per day of delay : _____ Max. no. of days of delay : _____ After which UNDP may terminate the contract.
Evaluation Criteria <i>[check as many as applicable]</i>	<input checked="" type="checkbox"/> <b>Technical responsiveness/Full compliance to requirements and lowest price - <u>The evaluation will be based on lowest price, technical compliance for each lot separately</u></b> <input checked="" type="checkbox"/> <b>Comprehensiveness of after-sales services</b> <input checked="" type="checkbox"/> <b>Full acceptance of the PO/Contract General Terms and Conditions <i>[this is a mandatory criterion and cannot be deleted regardless of the nature of services required]</i></b> <input checked="" type="checkbox"/> Confirmation to delivery timelines <input type="checkbox"/> Others <i>[pls. specify]</i>
UNDP will award to:	<input type="checkbox"/> One and only one supplier <input checked="" type="checkbox"/> <b>One or more Supplier – UNDP may award contracts to multiple bidders, separately for each lot.</b>  <i>The evaluation will be based on lowest price, technical compliance for each lot separately.</i>
Type of Contract to be Signed	<input checked="" type="checkbox"/> <b>Purchase Order</b>

	<input checked="" type="checkbox"/> <b>Contract Face Sheet (Goods and-or Services) UNDP</b> (this template is also utilised for Long-Term Agreement <sup>1</sup> ) <input type="checkbox"/> Other Type/s of Contract
Contract General Terms and Conditions	<input checked="" type="checkbox"/> <b>General Terms and Conditions for contracts (goods and/or services)</b> <input type="checkbox"/> General Terms and Conditions for de minimi contracts (services only, less than \$50,000)  Applicable Terms and Conditions are available at <a href="http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html">http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html</a>
Special conditions of Contract	<input checked="" type="checkbox"/> <b>Cancellation of PO/Contract if the delivery/completion is delayed by 30 days</b> <input type="checkbox"/> Others <i>[pls. specify]</i>
Conditions for Release of Payment	<input checked="" type="checkbox"/> <b>Passing Inspection</b> <input checked="" type="checkbox"/> <b>Complete Installation</b> <input checked="" type="checkbox"/> <b>Passing all Testing</b> <input checked="" type="checkbox"/> <b>Completion of Training on Operation and Maintenance</b> <input checked="" type="checkbox"/> <b>Written Acceptance of Goods based on full compliance with RFQ requirements</b> <input type="checkbox"/> Others
Annexes to this RFQ	<input checked="" type="checkbox"/> <b>Specifications of the Goods Required (Annex 1)</b> <input checked="" type="checkbox"/> <b>Form for Submission of Quotation (Annex 2)</b> <input checked="" type="checkbox"/> <b>General Terms and Conditions / Special Conditions:</b> <a href="http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html">http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html</a> <input type="checkbox"/> Others  Non-acceptance of the terms of the General Terms and Conditions (GTC) shall be grounds for disqualification from this procurement process.
Contact Person for Inquiries (Written inquiries only)	Rose Rivera <i>Procurement Assistant</i> <i>procurement.ph@undp.org</i>  Any delay in UNDP's response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.

Goods offered shall be reviewed based on completeness and compliance of the quotation with the minimum specifications described above and any other annexes providing details of UNDP requirements.

The quotation that complies with all of the specifications, requirements and offers the lowest price, as well as all other evaluation criteria indicated, shall be selected. Any offer that does not meet the requirements shall be rejected.

Any discrepancy between the unit price and the total price (obtained by multiplying the unit price and quantity) shall be re-computed by UNDP. The unit price shall prevail and the total price shall be corrected. If the supplier does not accept the final price based on UNDP's re-computation and correction of errors, its quotation will be rejected.

After UNDP has identified the lowest price offer, UNDP reserves the right to award the contract based only on the prices of the goods in the event that the transportation cost (freight and insurance) is found to be higher than UNDP's own estimated cost if sourced from its own freight forwarder and insurance provider.

At any time during the validity of the quotation, no price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by UNDP after it has received the quotation. At the time of award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

Any Purchase Order that will be issued as a result of this RFQ shall be subject to the General Terms and Conditions attached hereto. The mere act of submission of a quotation implies that the vendor accepts without question the General Terms and Conditions of UNDP indicated above - <http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html> .

UNDP is not bound to accept any quotation, nor award a contract/Purchase Order, nor be responsible for any costs associated with a Supplier's preparation and submission of a quotation, regardless of the outcome or the manner of conducting the selection process.

Please be advised that UNDP's vendor protest procedure is intended to afford an opportunity to appeal for persons or firms not awarded a purchase order or contract in a competitive procurement process. **In the event that** you believe you have not been fairly treated, you can find detailed information about vendor protest procedures in the following link:  
<http://www.undp.org/content/undp/en/home/operations/procurement/protestandsanctions/>

**UNDP encourages every prospective Vendor to** avoid and prevent conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, specifications, cost estimates, and other information used in this RFQ.

UNDP implements a zero tolerance on fraud and other proscribed practices, and is committed to identifying and addressing all such acts and practices against UNDP, as well as third parties involved in UNDP activities. UNDP expects its suppliers to adhere to the UN Supplier Code of Conduct found in this link :  
[http://www.un.org/depts/ptd/pdf/conduct\\_english.pdf](http://www.un.org/depts/ptd/pdf/conduct_english.pdf)

**Thank you and we look forward to receiving your quotation.**

### Technical Specifications (Minimum Specifications)

UNDP requires the services of an agency for Procurement, Supply, Delivery and Installation of Solar Power Systems (Off-Grid) for Selected Communities and Households in Six (6) Previously Acknowledged Moro Islamic Liberation Front Camps (MILF) Camps. The requirement is for 6 camps (lot) and four types of solar panels (kits).

The details of quantities required under each lot and kit is as below:

Lots	CAMP	Kit -A 30wp	Kit-B 50wp	Kit-C 50wp	Kit-D 120wp
Lot-1	Abubakar	93	2	20	2
Lot-2	Rajamuda	93	2	20	2
Lot-3	Omar	93	2	20	2
Lot-4	Badre	93	2	20	2
Lot-5	Bilal	93	2	20	2
Lot-6	Bushra	93	2	20	2
	Total no. of units	558	12	120	12

#### 1. Technical specifications for each solar panel system Kit

##### 1.1 Solar Kit A – 30 Watts (558 units)

Solar Kit A – 30 Watts (558 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
Component No. 1 Photovoltaic Panel					
Item 1.1 Photovoltaic Modules	<ul style="list-style-type: none"><li>- 30 watts Photovoltaic Modules per package</li><li>- Rated power per module: <u>0.833W</u></li><li>- Total Rated Power: <u>30W</u></li><li>- PV Module Specifications at Standard Test Condition (STC) as per <u>ISO ROHS IEC 61215</u> Certification:<ul style="list-style-type: none"><li>• <b>Maximum Power</b> at STC: 30W</li></ul></li></ul>				

Solar Kit A – 30 Watts (558 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
	<ul style="list-style-type: none"> <li>• <b>Maximum Power Voltage:</b> <u>17.80V</u></li> <li>• <b>Maximum Power Current:</b> <u>1.69A</u></li> <li>• <b>Open Circuit Voltage:</b> <u>21.60V</u></li> <li>• <b>Short Circuit Current:</b> <u>1.81A</u></li> <li>• <b>Module Efficiency:</b> <u>17%</u></li> <li>• <b>Power Tolerance:</b> <u>0~+3%</u></li> <li>• <b>Module Weight:</b> <u>3.05KG</u></li> <li>• <b>Maximum load (Snow/Wind):</b> <u>1m/s</u></li> <li>• <b>Guarantees:</b> <u>1 year</u></li> </ul>				
Item 1.2 Mounting Structure	<ul style="list-style-type: none"> <li>• Dimensions of the frame support shall accommodate the Structure</li> <li>• Size of the solar modules: <u>650*360*30MM</u></li> <li>• Frame material: <u>aluminum alloy</u></li> <li>• Frame bolts and nuts: <u>M12*25*2</u></li> <li>• Pole Mount material: N/A</li> <li>• Foundation: N/A</li> <li>• Mounting structure design: <u>Wall mounted with set screw</u></li> </ul>				
<b>Component No. 2 Charge Controller and Inverter Unit</b>					
Item 2.1 Charge Controller	<ul style="list-style-type: none"> <li>• Nominal Voltage: 12v</li> <li>• Input Voltage Range: 10.8~14.4V</li> <li>• Charging Current Rating: 20A</li> <li>• Regulation method: MPPT</li> <li>• Charging Algorithm: 5-7 Hours</li> <li>• Full charge voltage: 12v</li> </ul>				

Solar Kit A – 30 Watts (558 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
	<ul style="list-style-type: none"> <li>• Float charge voltage: 12v</li> </ul>				
Item 2.2 Inverter	<ul style="list-style-type: none"> <li>• Operating Voltage: n/a.</li> <li>• Low battery disconnect voltage: n/a.</li> <li>• Battery reconnect voltage: n/a.</li> <li>• Continuous AC Output Rating: n/a.</li> <li>• Surge Capacity: n/a.</li> <li>• Conversion Efficiency: n/a</li> <li>• AC Output Voltage: n/a.</li> <li>• AC Output Frequency: n/a.</li> <li>• AC Output Waveform: n/a</li> <li>• LED Status Indicators: n/a</li> <li>• Audible Indicator: n/a</li> <li>• Protections: n/a</li> <li>• Thermal management: n/a</li> <li>• Terminal connections: n/a</li> <li>• AC Outlets: n/a</li> <li>• Mounting: n/a</li> <li>• Approvals &amp; Certification to recognized International Standards: n/a</li> </ul>				
<b>Component No. 3 Energy Storage Battery</b>					
Battery	<ul style="list-style-type: none"> <li>• Battery Technology: <u>lead acid battery</u></li> <li>• Maintenance Type: <u>Maintenance free</u></li> <li>• Rating: <u>A+</u></li> <li>• Nominal Voltage: <u>12V</u></li> <li>• Full charge voltage: 14.4V</li> <li>• Float charge voltage: 13.8V</li> <li>• Minimum cycles at 30% DOD: <u>1200</u></li> <li>• Approvals &amp; Certification to recognized International Standards: <u>ISO 9001</u></li> </ul>				

Solar Kit A – 30 Watts (558 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
	<ul style="list-style-type: none"> <li>Battery Box: 0 with lockable and insulated top cover               <ul style="list-style-type: none"> <li>Access for battery cable to inverter/charge controller</li> <li>Elevated from the floor by at least 5cm</li> <li>Dimension of the metal enclosure to accommodate the batteries with 10% of free space on top between the batteries and the cover</li> </ul> </li> <li>Battery Interconnection Cables: <u>16mm<sup>2</sup> cable</u></li> </ul>				
<b>Component No. 4 Cables and Peripherals</b>					
4.1 PVwires combiner	Yes, Junction Box with MC4 (connect)				
4.2 PVto Controller/Inverter cable, maximum 20 meters	2.5mm <sup>2</sup> cable				
4.3 Controller/Inverter to Battery cable, maximum 2 meters	16mm <sup>2</sup> cable				
4.4 Inverter to load distribution panel cable, maximum 5 meters	Yes				
4.5 Load Distribution Panel	DC 12V Charging Accessories and LED Lights				
4.6 LED Lamps	Rated wattages: <u>200000Hrs</u> Input voltage: <u>12V</u> Input frequency: <u>50-60Hz</u>				

Solar Kit A – 30 Watts (558 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
	Color: <u>White</u> Correlated Color Temperature (CCT): <u>6000K</u> Color Rendering Index (CRI): <u>80</u> System Efficacy: <u>DC</u> Lumen maintenance: <u>100LM/W</u> Base: E 27 Lamp holder and extension: <u>5M/10M Cable with switch</u>				

## 1.2 Solar Kit B – 50 Watts (12 units)

Solar Kit B – 50 Watts (12 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification )	No, we cannot comply -indicate discrepancies		
Component No. 1 Photovoltaic Panel					
Item 1.1 Photovoltaic Modules	<ul style="list-style-type: none"><li>- 50 watts Photovoltaic Modules per package</li><li>- Rated power per module: <u>1.388W</u></li><li>- Total Rated Power: <u>50W</u></li><li>- PV Module Specifications at Standard Test Condition (STC) as per <u>ISO ROHS IEC 61215</u> Certification:<ul style="list-style-type: none"><li>• <b>Maximum Power</b> at STC: <u>50W</u></li><li>• <b>Maximum Power Voltage:</b> <u>17.80V</u></li><li>• <b>Maximum Power Current:</b> 2.81A</li></ul></li></ul>				

Solar Kit B – 50 Watts (12 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification )	No, we cannot comply -indicate discrepancies		
	<ul style="list-style-type: none"> <li>• <b>Open Circuit Voltage:</b> <u>21.60V</u></li> <li>• <b>Short Circuit Current:</b> <u>3.01A</u></li> <li>• <b>Module Efficiency:</b> <u>17%</u></li> <li>• <b>Power Tolerance:</b> <u>0~+3%</u></li> <li>• <b>Module Weight:</b> <u>3.85KG</u></li> <li>• <b>Maximum load (Snow/Wind):</b> <u>1m/s</u></li> <li>• <b>Guarantees:</b> <u>1 year</u></li> </ul>				
<b>Component No. 2 Charge Controller and Inverter Unit</b>					
Item 2.1 Charge Controller	<ul style="list-style-type: none"> <li>• Nominal Voltage: <u>12V</u></li> <li>• Input Voltage Range: <u>10.8~14.4V</u></li> <li>• Charging Current Rating: <u>20A</u></li> <li>• Regulation method: <u>MPPT</u></li> <li>• Charging Algorithm: <u>6-7 Hours</u></li> <li>• Full charge voltage: <u>14.4V</u></li> <li>• Float charge voltage: <u>13.8V</u></li> </ul>				
Item 2.2 Inverter	<ul style="list-style-type: none"> <li>• Operating Voltage: <u>12V</u></li> <li>• Low battery disconnect voltage: <u>10.8V</u></li> <li>• Battery reconnect voltage: <u>12.6V</u></li> <li>• Continuous AC Output Rating: <u>300W</u></li> <li>• Surge Capacity: <u>600VA</u></li> <li>• Conversion Efficiency: <u>≥85%</u></li> <li>• AC Output Voltage: <u>220V/230V</u></li> <li>• AC Output Frequency: <u>50HZ/60HZ</u></li> <li>• AC Output Waveform: <u>Pure sine wave</u></li> <li>• LED Status Indicators: <u>YES</u></li> <li>• Audible Indicator: <u>YES</u></li> <li>• Protections: <u>Overload protection, short circuit protection, Over temperature protection</u></li> </ul>				

Solar Kit B – 50 Watts (12 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification )	No, we cannot comply -indicate discrepancies		
	<ul style="list-style-type: none"> <li>Thermal management: <u>Air cooling</u></li> <li>Terminal connections: <u>M5</u></li> <li>AC Outlets: <u>universal socket</u></li> <li>Mounting: <u>inverter build in solar kits ( with wheel )</u>; panels can be <u>Wall mounted or DIN-Rail Mounting</u></li> <li>Approvals &amp; Certification to recognized International Standards: <u>CE, RoHs, ISO</u></li> </ul>				
<b>Component No. 3 Energy Storage Battery</b>					
Battery	<ul style="list-style-type: none"> <li>Battery Technology: <u>lead acid battery</u></li> <li>Maintenance Type: <u>Maintenance free</u></li> <li>Rating: <u>A+</u></li> <li>Nominal Voltage: <u>12V</u></li> <li>Full charge voltage: 14.4V.</li> <li>Float charge voltage: 13.8V.</li> <li>Minimum cycles at 30% DOD: <u>1200</u></li> <li>Approvals &amp; Certification to recognized International Standards: <u>ISO 9001</u></li> <li>Battery Box: 0 with lockable and insulated top cover <ul style="list-style-type: none"> <li>Access for battery cable to inverter/charge controller</li> <li>Elevated from the floor by at least 5cm</li> <li>Dimension of the metal enclosure to accommodate the batteries with 10% of free space on top between the batteries and the cover</li> </ul> </li> </ul>				

Solar Kit B – 50 Watts (12 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification )	No, we cannot comply -indicate discrepancies		
	<ul style="list-style-type: none"> <li>Battery Interconnection Cables: <u>16mm<sup>2</sup> cable</u></li> </ul>				
<b>Component No. 4 Cables and Peripherals</b>					
4.1 PVwires combiner	Yes, Junction Box with MC4 (connect )				
4.2 PVto Controller/Inverter cable, maximum 20 meters	2.5mm <sup>2</sup> cable				
4.3 Controller/Inverter to Battery cable, maximum 2 meters	16mm <sup>2</sup> cable				
4.4 Inverter to load distribution panel cable, maximum 5 meters	Yes				
4.5 Load Distribution Panel	Such as AC TV, fan, Lamp and others				
4.6 LED Lamps	Rated wattages: <u>200000Hrs</u> Input voltage: <u>12V</u> Input frequency: <u>50-60 Hz</u> Color: <u>White</u> Correlated Color Temperature (CCT): <u>6000K</u> Color Rendering Index (CRI): <u>80</u> System Efficacy: <u>DC</u> Lumen maintenance: <u>100LM/W</u> Base: E 27 Lamp holder and extension: <u>5M/10M</u> <u>Cable with switch</u>				

### 1.3 Solar Kit C – 120 Watts (120 units)

Solar Kit C – 120 Watts (120 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
Component No. 1 Photovoltaic Panel					
Item 1.1 Photovoltaic Modules	<ul style="list-style-type: none"><li>- 120 watts Photovoltaic Modules per package</li><li>- Rated power per module: <u>3.333W</u></li><li>- Total Rated Power: <u>120W</u></li><li>- PV Module Specifications at Standard Test Condition (STC) as per <u>ISO ROHS IEC 61215</u> Certification:<ul style="list-style-type: none"><li>• <b>Maximum Power</b> at STC: <u>120W</u></li><li>• <b>Maximum Power Voltage:</b> <u>17.80V</u></li><li>• <b>Maximum Power Current:</b> <u>6.75A</u></li><li>• <b>Open Circuit Voltage:</b> <u>21.60V</u></li><li>• <b>Short Circuit Current:</b> <u>7.22A</u></li><li>• <b>Module Efficiency:</b> <u>17%</u></li><li>• <b>Power Tolerance:</b> <u>0~+3%</u></li><li>• <b>Module Weight:</b> <u>8.70KG</u></li><li>• <b>Maximum load (Snow/Wind):</b> <u>1m/s</u></li><li>• <b>Guarantees:</b> <u>1 year</u></li></ul></li></ul>	-	-	-	-
Component No. 2 Inverter Unit					
Item 2.1 Inverter (600W)	<ul style="list-style-type: none"><li>• Operating Voltage: 12V</li><li>• Low battery disconnect voltage: 10.8V</li><li>• Battery reconnect voltage: 12.6V</li><li>• Continuous AC Output Rating: 600W</li><li>• Surge Capacity: 1200VA</li></ul>				

Solar Kit C – 120 Watts (120 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
	<ul style="list-style-type: none"> <li>• Conversion Efficiency: <u>≥85%</u></li> <li>• AC Output Voltage: <u>220V/230V</u></li> <li>• AC Output Frequency: <u>50HZ/60HZ</u></li> <li>• AC Output Waveform: <u>Pure sine wave</u></li> <li>• LED Status Indicators: <u>YES</u></li> <li>• Audible Indicator: <u>YES</u></li> <li>• Protections: <u>Overload protection, short circuit protection, Over temperature protection</u></li> <li>• Thermal management: <u>Air cooling</u></li> <li>• Terminal connections: <u>M5</u></li> <li>• AC Outlets: <u>universal socket</u></li> <li>• Mounting: <u>inverter build in solar kits ( with wheel ); panels can be Wall mounted or DIN-Rail Mounting</u></li> <li>• Approvals &amp; Certification to recognized International Standards: <u>CE, RoHs, ISO</u></li> </ul>				
<b>Component No. 3 Energy Storage Battery</b>					
Battery	<ul style="list-style-type: none"> <li>• Battery Technology: <u>lead acid battery</u></li> <li>• Maintenance Type: <u>Maintenance free</u></li> <li>• Rating: <u>A+</u></li> <li>• Nominal Voltage: <u>12V</u></li> <li>• Full charge voltage: <u>14.4V</u></li> <li>• Float charge voltage: <u>13.8V</u></li> </ul>				

Solar Kit C – 120 Watts (120 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
	<ul style="list-style-type: none"> <li>Minimum cycles at 30% DOD: <u>1200</u></li> <li>Approvals &amp; Certification to recognized International Standards: <u>ISO 9001</u></li> <li>Battery Box: 0 with lockable and insulated top cover               <ul style="list-style-type: none"> <li>Access for battery cable to inverter/charge controller</li> <li>Elevated from the floor by at least 5cm</li> <li>Dimension of the metal enclosure to accommodate the batteries with 10% of free space on top between the batteries and the cover</li> </ul> </li> <li>Battery Interconnection Cables: <u>16mm<sup>2</sup> cable</u></li> </ul>				
<b>Component No. 4 Cables and Peripherals</b>					
4.1 PVwires combiner	Yes, Junction Box with MC4 (connect)				
4.2 PVto Controller/Inverter cable, maximum 20 meters	2.5mm <sup>2</sup> cable				
4.3 Controller/Inverter to Battery cable, maximum 2 meters	16mm <sup>2</sup> cable				
4.4 Inverter to load distribution panel cable,	Yes				

Solar Kit C – 120 Watts (120 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
maximum 5 meters					
4.5 Load Distribution Panel	Such as AC & DC TV, fan, lamp, computer and many more				
4.6 LED Lamps	Rated wattages: <u>200000Hrs</u> Input voltage: <u>12V</u> Input frequency: <u>50-60Hz</u> Color: <u>White</u> Correlated Color Temperature (CCT): <u>6000K</u> Color Rendering Index (CRI): <u>80</u> System Efficacy: <u>DC</u> Lumen maintenance: <u>100LM/W</u> Base: E 27 Lamp holder and extension: <u>5M/10M Cable with switch</u>				

#### 1.4 Solar Street Light – SSL 50 Watts (12 units)

D. Solar Street Light – SSL 50 Watts (12 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
Component No. 1 Photovoltaic Panel					
Item 1.1 Photovoltaic Modules	<ul style="list-style-type: none"><li>- <b>50 watts</b> Photovoltaic Modules per package</li><li>- Rated power per module: <u>1.388W</u></li><li>- Total Rated Power: <u>50W</u></li></ul>				

D. Solar Street Light – SSL 50 Watts (12 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
	<ul style="list-style-type: none"> <li>- PV Module Specifications at Standard Test Condition (STC) as per <u>ISO ROHS IEC 61215</u> Certification: <ul style="list-style-type: none"> <li>• <b>Maximum Power</b> at STC: <u>50W</u></li> <li>• <b>Maximum Power Voltage:</b> <u>17.80V</u></li> <li>• <b>Maximum Power Current:</b> <u>2.81A</u></li> <li>• <b>Open Circuit Voltage:</b> <u>21.60V</u></li> <li>• <b>Short Circuit Current:</b> <u>3.01A</u></li> <li>• <b>Module Efficiency:</b> <u>17%</u></li> <li>• <b>Power Tolerance:</b> <u>0~+3%</u></li> <li>• <b>Module Weight:</b> <u>3.85KG</u></li> <li>• <b>Maximum load (Snow/Wind):</b> <u>1m/s</u></li> <li>• <b>Guarantees:</b> <u>5 years</u></li> </ul> </li> </ul>				
Item 1.2 Mounting Structure	<ul style="list-style-type: none"> <li>• Dimensions of the frame support shall accommodate the Structure</li> <li>• Size of the solar modules: <u>650*360*30MM</u></li> <li>• Frame material: <u>aluminum alloy</u></li> <li>• Frame bolts and nuts: <u>M12*25*2</u></li> <li>• Pole Mount material: <u>Hot Dipped Galvanized</u></li> <li>• Foundation: <u>Concrete Pedestal</u></li> <li>• Mounting structure design: <u>Pole mounted with set screw</u></li> </ul>				

D. Solar Street Light – SSL 50 Watts (12 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
Component No. 2 Charge Controller and Inverter Unit					
Item 2.1 Charge Controller	<ul style="list-style-type: none"><li>Nominal Voltage: <u>12V</u></li><li>Input Voltage Range: <u>10.8~14.4V</u></li><li>Charging Current Rating: <u>20A</u></li><li>Regulation method: <u>MPPT</u></li><li>Charging Algorithm: <u>6-8 hours charging</u></li><li>Full charge voltage: <u>12V</u></li><li>Float charge voltage: <u>12V</u></li></ul>				
Item 2.2 Inverter	<ul style="list-style-type: none"><li>Operating Voltage: n/a.</li><li>Low battery disconnect voltage: n/a.</li><li>Battery reconnect voltage: n/a.</li><li>Continuous AC Output Rating: n/a.</li><li>Surge Capacity: n/a.</li><li>Conversion Efficiency: n/a</li><li>AC Output Voltage: n/a.</li><li>AC Output Frequency: n/a.</li></ul>				
	<ul style="list-style-type: none"><li>AC Output Waveform: n/a.</li><li>LED Status Indicators: n/a.</li><li>Audible Indicator: n/a.</li><li>Protections: n/a.</li><li>Thermal management: n/a.</li><li>Terminal connections: n/a.</li><li>AC Outlets: n/a.</li><li>Mounting: n/a.</li><li>Approvals &amp; Certification to recognized International Standards: n/a.</li></ul>				

D. Solar Street Light – SSL 50 Watts (12 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
Component No. 3 Energy Storage Battery					
Battery	<ul style="list-style-type: none"><li>Battery Technology: <u>lead acid battery</u></li><li>Maintenance Type: <u>Maintenance free</u></li><li>Rating: <u>A+</u></li><li>Nominal Voltage: <u>12V</u></li><li>Full charge voltage: <u>14.4V</u>.</li><li>Float charge voltage: <u>13.8V</u>.</li><li>Minimum cycles at 30% DOD: <u>1200</u></li><li>Approvals &amp; Certification to recognized International Standards: <u>ISO 9001</u></li><li>Battery Box: 0 with lockable and insulated top cover<ul style="list-style-type: none"><li>Access for battery cable to inverter/charge controller</li><li>Elevated from the floor by at least 5cm</li><li>Dimension of the metal enclosure to accommodate the batteries with 10% of free space on top between the batteries and the cover</li></ul></li><li>Battery Interconnection Cables: <u>16mm<sup>2</sup> cable</u></li></ul>				
Component No. 4 Cables and Peripherals					
4.1 PVwires combiner	Yes, junction box with MC4				
4.2 PVto Controller/Inverter	2.5mm <sup>2</sup> cable				

D. Solar Street Light – SSL 50 Watts (12 units)	Description and minimum/mandatory specifications	Your response			
		Compliance with <b>MINIMUM</b> technical specifications		Delivery Date (confirm that you comply or indicate your delivery date)	Quality Certificate/ Export Licenses, etc. (indicate all that apply and attach)
		Yes, we comply (indicate “no deviations” if offer is absolutely same with the specification)	No, we cannot comply -indicate discrepancies		
cable, maximum 20 meters					
4.3 Controller/Inverter to Battery cable, maximum 2 meters	16mm <sup>2</sup> cable				
4.4 Inverter to load distribution panel cable, maximum 5 meters	YES				
4.5 Load Distribution Panel	LED Lamp				
4.6 LED Lamps	Rated wattages: <u>15 Watts</u> Input voltage: <u>12V</u> Input frequency: <u>50-60Hz</u> Color: <u>White</u> Correlated Color Temperature (CCT): <u>6000K</u> Color Rendering Index (CRI): <u>80</u> System Efficacy: <u>DC</u> Lumen maintenance: <u>100LM/W</u> Base: <u>N/A</u> Lamp holder and extension: <u>With Arms</u>				

## 2. Training

Training Component	Description and minimum/mandatory specifications
	<p>The awarded supplier will provide training services, including training material and on-site training session, before installation of Solar Power System kits at each camp.</p> <p>The duration of each training will be of a minimum of 4 hours, delivered face to face at each camp to a group of 10 selected technicians.</p> <ul style="list-style-type: none"> <li>A training checklist will be signed by the participants after the training is conducted. Training Checklist template will be provided by OPAPP Central Office.</li> <li>Installed solution in the target household/communal facility will be used for the face to face training.</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Training Manuals in Hardcopies and softcopies (in DVD) shall be provided to each camp.</li> <li>▪ Supplier shall produce Orientation Handbook and deliver one hard copy to each target beneficiary.</li> <li>▪ Training content shall include the following; <ul style="list-style-type: none"> <li><u>Solar Power System</u> <ul style="list-style-type: none"> <li>a) Basic operations of the solar energy system equipment</li> <li>b) Load management</li> <li>c) Basic maintenance of the solar energy system equipment.</li> <li>d) Basic troubleshooting of the solar system equipment</li> <li>e) Orientation on the warranty and reporting procedure</li> </ul> </li> </ul> </li> </ul>
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### 3. Installation

<b>Installation Services Component</b>	<p>The supplier must provide installation services through a Local Company established in The Philippines (please refer to the Bid Data Sheet for further details on the required Organizational Set Up).</p> <p>In case the Main Bidder is not a Philippine company, a signed/notarized agreement between the bidder and affiliated local service partner shall be included in the submission. A valid and current Business Permit shall be attached in the agreement.</p> <p>The bidders must submit the List of Service Centers, along with the contact details of the local support team members and local service manager/s.</p> <p>Local Service Providers' minimum qualifications:</p> <ul style="list-style-type: none"> <li>a) The Local Service Provider must be established in the Philippines and be authorized by the manufacturers of the goods offered to provide technical support services within the country.</li> <li>b) The Local Service Provider must cover technical support centers in all main areas of the country: Metro Manila, Cebu and Davao. The bidder is requested to provide details of the capacity of each of the local technical service providers which they intend to partner with.</li> <li>c) The supplier must ensure that there is a sufficient number of space parts at the Local Service Providers' premises, which are readily available to ensure timely responses and solutions.</li> <li>d) The Local Service Provider's personnel must comply with the following qualifications; <ul style="list-style-type: none"> <li>- Employing at least 1 qualified PV engineer who must have participated in at least 1 of the PV trainings.</li> <li>-</li> </ul> </li> </ul> <p><u>Installation requirements:</u> The installation of the equipment at the camps will commence upon delivery of the goods.</p> <p>The bidders are requested to provide a preliminary installation plan, covering the six camps, organized by barangay complying with the requested implementation timelines.</p>
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	<p>- Installation set-up:</p> <p>All necessary cables, adaptors and connections must be provided by the supplier in order to complete a functional installation of the solution supplied to each household/communal facility.</p> <p>The mounting structure with solar modules must be placed on the roof of the household/communal facility with maximum solar exposure, free from shading, accessible for maintenance and repair, within an area not to exceed the total cable length from the solar array to the charge controller of 20 meters. The three solar modules to be connected in parallel via MC4 3 to 1 combiners. The cable from the solar array to the charge controller shall enter household/communal facility with a drip loop to avoid entry of water into the house/building structure. The cables shall be fastened with cable ties, clamps and staple wires.</p> <p>Solar kit enclosure</p> <p>A metal enclosure with handle where the charge controller, inverter, battery, load was placed. The AC/DC switch, battery level indicator, solar charging indicator, AC/DC voltage indicator, USB charging slot, battery breaker, and solar input are integrated on the enclosure shall be installed inside the house/building in a location where they can be securely mounted and does not obstruct the path of the beneficiaries. The charge controller/inverter unit shall be mounted on a wall above the battery box containing the three batteries with a maximum cable length from the battery terminal to the inverter input of 2 meters.</p> <p>The LED lamps shall be screwed into the e27 sockets and mounted on the ceiling of the classroom. The lamps shall be plugged to the Load Distribution panel where they can be individually switched.</p> <p>The PV panels, mounting structure shall bear a sticker with JTFCT acronym. Stickers to be provided by the supplier according to the following specifications:</p> <ul style="list-style-type: none"> <li>o Self-adhesive thick and waterproof resistant vinyl material stickers with glossy finish.</li> <li>o Pre-printed in 1 colors on white background</li> <li>o Approximate size: 2 x 2 inches</li> </ul> <p>Strong glue ensure that the stickers will not be easily detached/unglued, especially in hot, very humid and rainy weather conditions.</p>
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#### 4. Warranty and Technical Support

<b>Warranty and Technical Support Services Component</b>	<p>Warranty coverage and after sale technical support services are required for the Solar Power System for a period 1 year.</p> <p>The Solar Power System is subject to functional warranty to ensure that it will be in good running condition, providing electricity.</p> <p>The warranty for all items and components will commence after the items have been delivered and installed, on the same day that the solution has been accepted by the End User.</p>
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	<p>The warranty shall be provided by the manufacturer. In case that the manufacturers' warranty for any item is inferior to 1 year, the remaining period shall be covered by the supplier.</p> <p>The supplier will be requested to provide all necessary licenses and certificates that confirm that end user will receive 1 year of support service from the manufacturers or from the supplier.</p> <p><b>Technical Support Service Requirements:</b></p> <ol style="list-style-type: none"> <li>1. JTFCT will provide feed backing system to be used as a tool of the suppliers, beneficiaries to report/monitor deployment and process technical support reported by the recipients. <ul style="list-style-type: none"> <li>o The supplier will be requested to provide the Company profiles and Technical Support contact details to be uploaded in the system. Two (2) different mobile numbers from the maintain telephone companies to be provided and to be operational at least 8 hours/day and 5 days/week (business hours and days), including the website address and email address.</li> </ul> </li> <li>2. The supplier shall act on all reported issues by deploying support technicians for troubleshooting, and repair purposes or telephone assistance, as necessary.</li> <li>3. Requested resolution times: <ul style="list-style-type: none"> <li>o Seven-day guarantee to repair the system or unit/s upon receipt of the request.</li> <li>o In case unit/s cannot be repaired within the seven (7) day guarantee period, the unit/s must be placed within a maximum of fourteen (14) calendar days. Replacement must be installed prior to the pull out of the defective or unrepairable unit/s.</li> </ul> </li> <li>4. No pull-out of any equipment for repair/replacement shall be made without written authorization from the supplier duly approved by the JTFCTs or his/her authorized representative.</li> <li>5. Supplier shall submit monthly summary reports of received, resolved, pending and closed issues to the end-user.</li> </ol> <p>All Service Level Agreement (SLA) covering all the requirements above will be signed with the awarded supplier.</p>
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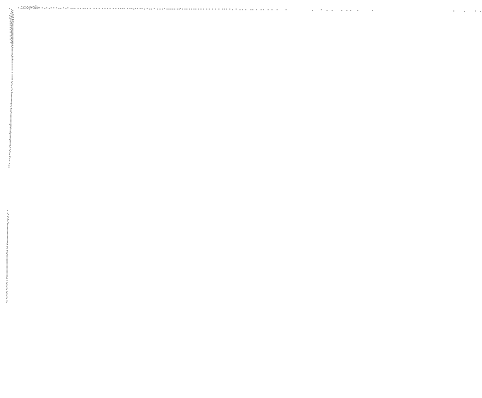
#### 5. Delivery sites for inspection and storage prior to on-site installation

The SPS kits in listed in the preceding section, including ancillary components (if any), shall be delivered to the following camps for inspection and storage prior to on-site installation:

CAMP	TARGET SITES	DROP OFF POINT
Abubakar-as-Siddique in Maguindanao	Guiling, Alamada, North Cotabato	Nursery Making, Parang, Maguindanao
	Pabrica Marogong, Lanao del Sur	
Rajamuda in North Cotabato	Kilangan, Pagalungan, Maguindanao	Brgy. Kilangan, Pagalungan, Maguindanao
	Dalgan, Pangalungan, Maguindanao	
	Sitio Singko, Kudal, Pagalungan, Maguindanao	

	Sadangen, General Salipada K. Pendatun, Maguindanao	
<b>Omar Ibn al-Khattab</b> in Maguindanao	Datu Hoffer, Maguindanao	Barangay Tuayan, Datu Hoffer, Maguindanao
	Brgy. Saniag, Ampatuan, Maguindanao	Sitio Upper Malating
<b>Badre in</b> Maguindanao	Kenebeka, Datu Odin Sinsuat	Poblacion Dalican, Datu Odin Sinsuat
	Sibuto, Datu Odin Sinsuat	
	Sitio Katulanga, Datalpandan, Guindulungan	Brgy. Datal Pandan, Guindulungan
	Ahan, Guindulungan	
	Sifaran, Datu Odin Sinsuat	Brgy. Kurintem, Datu Odin Sinsuat
<b>Bilal</b> spanning Lanao del Norte and Lanao del Sur	Sitio Bandara-inged, Munai, Lanao del Norte	Brgy. Dilabayan, Kauswagan, Lanao del Norte
	Lamaosa, Tangcal, Lanao del Norte	
<b>Bushra</b> Somiorang in Lanao del Sur	Brgy. Wago, Lumbayanague, Lanao del Sur	Brgy. Wago, Lumbayanague, Lanao del Norte

*\*Pls. attach delivery schedule, if relevant, and cluster by lot, if partial bids will be allowed. Specify delivery locations if goods multiple destinations.*



## Annex 2

### FORM FOR SUBMITTING SUPPLIER'S QUOTATION (This Form must be submitted only using the Supplier's Official Letterhead/Stationery)

We, the undersigned, hereby accept in full the UNDP General Terms and Conditions, and hereby offer to supply the items listed below in conformity with the specification and requirements of UNDP as per RFQ Reference No. \_\_\_\_\_:

**TABLE 1 : Offer to Supply Goods Compliant with Technical Specifications and Requirements**

Kit	Description	QTY	Unit Price (VAT exempt)	Total Price (VAT exempt)
Kit-A	30wp	558		
Kit-B	50wp (general)	12		
Kit-C	50wp (street light)	12		
Kit-D	120wp	120		
Total (PHP)				100

**TABLE 2: Total cost**

**Bidders may choose to quote for one or multiple lots. Please use the table below to select the lot for which the bid is being submitted. Evaluation will be carried out separately for each lot.**

	Lot-1	Lot-2	Lot-3	Lot-4	Lot-5	Lot-6
<b>Total cost for Equipment</b>						
<b>Transportation/Delivery Cost</b>						Delivery at Barangay Wago, Lumbayanague
<b>Installation to all sites</b>						Not required
<b>Testing/Integration/Commissioning at all sites</b>						Not required
<b>Training at site (including User Manuals)</b>						Training at Barangay Wago, Lumbayanague
<b>Warranty</b>						
<b>GRAND TOTAL</b>						

**TABLE 3: Offer to Comply with Other Conditions and Related Requirements**

Other Information pertaining to our Quotation are as follows :	Your Responses		
	<i>Yes, we will comply</i>	<i>No, we cannot comply</i>	<i>If you cannot comply, pls. indicate counter proposal</i>
Delivery Lead Time			
Estimated weight/volume/dimension of the Consignment:			
Country/ies Of Origin <sup>2</sup> :			
Warranty and After-Sales Requirements			
a) Training on Operations and Maintenance			
b) Minimum one (1) year warranty on both parts and labor			
c) Service Unit to be Provided when the Purchased Unit is Under Repair			
d) Brand new replacement if Purchased Unit is beyond repair			
e) Others			
Validity of Quotation			
All Provisions of the UNDP General Terms and Conditions			
Other requirements <i>[pls. specify]</i>			

All other information that we have not provided automatically implies our full compliance with the requirements, terms and conditions of the RFQ.

*[Name and Signature of the Supplier's Authorized Person]*  
*[Designation]*  
*[Date]*

<sup>2</sup> If the country of origin requires Export License for the goods being procured, or other relevant documents that the country of destination may require, the supplier must submit them to UNDP if awarded the PO/contract.

Lot wise list of locations for supply of panels (Delivery), Installation, Testing/Integration/Commissioning and Training at site is as below:

**Lot 1 - CAMP ABUBAKAR**

S.I.	Target Delivery Location	Qty.
Lot 1 - Kit A	Bayanga Sur, Matanog, Mag.	2
	Bongabong, Kapatagan, LDS	2
	Bualan, Barira, Maguindanao	2
	Budas, Balabagan Lanao del Sur	1
	Bugasan Norte, Matanog, Mag.	1
	Bugasan Sur, Matanog, Mag.	2
	Calaan, Buldon, Maguindanao	4
	Dado, Alamada, North Cot.	1
	Daguan, Kapatagan, LDS	1
	Giling, Alamada, North Cot.	3
	Karim, Buldon, Maguindanao	1
	Karusoyan, Barira, Maguindanao	1
	Kulimpang, Buldon, Maguindanao	2
	Lamin, Barira, Maguindanao	6
	Liong, Barira, Maguindanao	2
	Lipawan, Barira, Maguindanao	3
	Lusain, Kapatagan, LDS	2
	Maniyon, Parang, Maguindanao	1
	Mataya, Buldon, Maguindanao	1
	Minabai, Buldon, Maguindanao	1
	Nabalawag, Barira, Maguindanao	21
	Nuyo, Buldon, Maguindanao	1
	Pabrika, Marogong, LDS	1
	Panggao, Barira, Maguindanao	1
	Piers, Buldon, Maguindanao	1
	Pob. Barira, Barira, Maguindanao	5
	Rumidas, Buldon, Maguindanao	3
	Salamen, Kapatagan, LDS	1
	Sapad, Matanog, Maguindanao	4
	Sitio Lagaan, Sapad, Matanog, Mag.	1
	Tabuan, Kapatagan, LDS	3
	Tugaig, Barira, Mag.	3
	Tugaig, Barira, Maguindanao	9
Lot 1 - Kit B	Brgy. Nabalawag, Barira, Maguindanao	1
	Brgy. Tugaig, Barira, Maguindanao	1
Lot 1 - Kit C	Kapatagan, LDS	4
	Nabalawag, Barira, Maguindanao	8
	Sapad, Matanog, Maguindanao	2

	Tugaig, Barira, Maguindanao	6
Lot 1 - Kit D	Brgy. Nabalawag, Barira, MAG	1
	Brgy. Tugaig, Barira, Maguindanao	1

**Lot 2 - CAMP RAJAMUDA**

S.I.	Target Delivery Location	Qty.
Lot 2 - Kit A	Brgy. Alip, Datu Paglas	4
	Brgy. Bulol, Pikit , North Cot.	14
	Brgy. Dalgan, Pagalungan	4
	Brgy. Dungan, Datu Montawal, Mag.	11
	Brgy. Layog/Galakit, Pagalungan, Mag.	11
	Brgy. Sadangan, GSKP	12
	Brgy. Talitay, Datu Muntawal,	6
	Brgy. Talitay, Pitkit, North Cot.	1
	Brgy.. Kilangan, Pagalungan, Mag.	11
	Sitio 5, Brgy. Kudal, Pagalungan, Mag.	8
	Sitio Dungan, Ugalingan, Carmin North Cot.	3
	Sitio Dungan, Brgy. Ugalingan, Carmin North Cot.	8
Lot 2.2	Brgy. Bulol, Pikit, North Cot.	2
Lot 2.3	Brgy. Bulol, Pikit, North Cot.	2
	Brgy. Kilangan, Pagalungan,	4
	Brgy. Layog, Galakit, Pagalungan	4
	Brgy. Rajamuda, Pitkit, North Cot.	6
	Brgy. Talitay, Datu Montawal	4
Lot 2.4	Brgy. Buliok, Pikit, North Cotabato	1
	Brgy. Rajamuda, Pikit, NC	1

**Lot 3 - CAMP OMAR**

S.I.	Target Delivery Location	Qty.
Lot 3.1	Brgy. Tuayan, Datu Hoffer Ampatuan, Maguindanao	9
	Madjid Islam, Saniag, Ampatuan, Maguindanao	1
	Masjid Lumbagan, Tuayan, Datu Hoffer, Mag.	1
	Masjid Kumpawn, Sitio Lumbagan, Tuayan, Datu Hoffer, Mag.	1
	Sitio Bagorot, Tuayan Mother, DHA, Mag	5
	Sitio Butunan, Brgy. Tuayan Mother, DHA, Mag.	6
	Sitio Datal, Brgy. Mantao, Datu Hoffer, Mag.	7
	Sitio Kudungan, Brgy. Makalag, DHA, Maguindanao	5
	Sitio Lionin, Brgy. Saniag, Ampatuan, Mag.	2
	Sitio Pamimbingan, Tuayan Mother, Datu Hoffer, Mag.	6
	Sitio Pulangi, Tuayan Mother, DHA, Mag.	8
	Sitio Pulo, Brgy. Mantao, Datu Hoffer, Mag.	5
	Sitio Tawan Tawan, Brgy. Saniag, Ampatuan, Mag.	18

	Sitio Tebag, Brgy. Saniag, Ampatuan, Mag.	8
	Sitito Balawag, Brgy. Makalag, Datu Hoffer, Mag.	6
	Upper Malating, Brgy. Saniag, Ampatuan, Mag.	5
<b>Lot 3.2</b>	Masjid Aliman, Brgy. Tuayan Mother, Datu hoffer, mag.	1
	Masjid Lapok, Brgy. Lapok, Sharif Aguak, Mag.	1
<b>Lot 3.3</b>	Catholic Church, Brgy. Saniag, Ampatuan, Mag.	1
	Community Center, Brgy. Guinibon, DAS, mag.	1
	Community Center, Brgy. Makalag, Datu Hoffer, Mag.	1
	Community Center, Brgy. Saniag, Ampatuan, Mag.	1
	Dam Site, Tuayan Mother, Datu Hoffer, Mag.	1
	Da'wah Center, Sitio Tawan-tawan, Brgy. Saniag, Ampatuan, Mag.	1
	Kalimudan Hall, Sitio Paglat, Tuayan Datu Hoffer, Mag.	1
	Kaya-kaya Elem. School, Brgy. Kaya-Kaya, DAS, Mag.	1
	Kudungan Hall, Brgy. Makalag, Datu Hoffer, Mag.	1
	Madrasatul Eman, Brgy. Saniag, Ampatuan, Mag.	1
	Masjid Aksa, Brgy. Saniag, Ampatuan, Mag.	1
	Masjid Ebrahim, Pidsimbunan, DAS, Mag.	1
	Masjid Mapayag, Sitio Buluan, Kakal Ampatuan, Mag.	1
	Masjid Pamibingan, Brgy. Tuayan Mother, DHA, Mag	1
	Masjid Sampao, Brgy. Mantao, Datu Hoffer, Mag.	1
	Multi Purpose Center, Brgy. Mantao, Datu Hoffer, Mag.	1
	Sitio Lipag, Talfok, Tuayan Mother Datu Hoffer, Mag.	1
	Sitio Talpok, Brgy. Tuayan, Datu Hoffer, Mag.	1
	Tribal Hall, Brgy. Saniag, Ampatuan, Mag.	1
	Tribal Hall, Sitio Pamibingan, Tuayan Mother, DHA, Mag.	1
<b>Lot 3.4</b>	Brgy. Salman, Ampatuan, MAG	1
	Brgy. Saniag, Ampatuan, MAG	1

#### Lot 4 - CAMP BADRE

S.I.	Target Delivery Location	Qty.
<b>Lot 4.1</b>	Brgy. Kenebeka, DOS, Mag.	36
	Brgy. Marader	8
	Lower Sitio Katulanga, Brgy. Datalpandan, Talayan, Mag.	7
	Proper Sifaran, DOS, Mag.	5
	Sitio Balis, Brgy. Datalpanda, Talayan, Mag.	7
	Sitio Malbao, Brgy. Sifaran, DOS, Mag	3
	Sitio Mangga, Sifaran, DOS, Mag.	3
	Sitio Tippedo, Brgy. Sifaran, DOS, Mag.	4
	Sitio Tubaran, Sifaran, DOS, mag.	4
	Sitio Utan, Datalpandan, Talayan, Mag.	12
<b>Lot 4.2</b>	Sitio Utan, Datalpandan, Talayan, Mag.	2
<b>Lot 4.3</b>	Brgy. Marader	1

	Brgy. Sibuto, DOS, Mag.	1
	Community Center, Brgy. Kurentem, DOS, Mag.	1
	Lower Sitio Katulanga, Brgy. Datalpandan, Talayan, Mag.	2
	Mosque Sifaran, DOS, Mag.	1
	Proper Kenebeka	3
	Session Hall, Brgy. Sifaran, DOS, Mag.	1
	Sitio Lower M'abuto, Brgy. Kenebeka, DOS, Mag.	2
	sitio Puti Kenebeka, DOS, Mag.	4
	Upper Sitio Kalunga, Brgy. Datalpandan, Talayan, Mag.	4
<b>Lot 4.4</b>	Brgy. Ahan, Guindulungan, MAG	1
	Brgy. Datal Pandan, Guindulungan, MAG	1

**Lot 5 - CAMP BILAL**

S.I.	Target Delivery Location	Qty.
<b>Lot 2.1</b>	Sitio Korakora, Brgy. Tamparan, Munai, Lanao Del Norte	7
	Sitio Langaylay, Brgy. Tamparan, Munai, Lanao Del Norte	86
<b>Lot 2.2</b>	Sitio Korakora, Brgy. Tamparan, Munai, Lanao Del Norte	2
<b>Lot 2.3</b>	Sitio Korakora, Brgy. Tamparan, Munai, Lanao Del Norte	20
<b>Lot 2.4</b>	Brgy. Dilabayan, Munai, LDN	1
	Brgy. Tamparan, Munai, Lanao del Norte	1

**Lot 6 - CAMP BUSHRA**

S.I.	Target Delivery Location	Qty.
<b>Lot 2.1</b>	Brgy. Wago, Lumbayanague, LDS	93
<b>Lot 2.2</b>	Brgy. Wago, Lumbayanague, LDS	2
<b>Lot 2.3</b>	Brgy. Wago, Lumbayanague, LDS	20
<b>Lot 2.4</b>	Brgy. Sandab, Butig, Lanao del Sur	1
	Brgy. Wago, Butig, LDS	1



## TERMS OF REFERENCE

Project / Output ID	00107421 / 00107729
Project Title	Support to Peacebuilding and Normalization (SPAN) Programme
Activity Title	<b>Procurement, Supply, Delivery and Installation of Solar Power Systems (Off-Grid) for Selected Communities and Households in Six (6) Previously Acknowledged Moro Islamic Liberation Front Camps (MILF) Camps</b>
Contract Duration	Completion of deliverables within 60 working days from receipt of Notice to Proceed
Funding Source	SPAN Outcome 2 Output 4.1
Executing Agency/Unit	UNDP Philippines - Resilience and Peace Building Unit (RPBU)
General Supervision	Office of the Presidential Adviser on the Peace Process (OPAPP)

## A. BACKGROUND

The SPAN Programme seeks to contribute towards sustaining the gains of the peace process, and in ensuring peace and security in conflict-affected and conflict-vulnerable areas in the Bangsamoro. It represents a comprehensive approach to peacebuilding and development by pursuing peacebuilding interventions along three (3) critical and interrelated Government priorities for peace and development: 1) support for the implementation of the Security aspect of the Normalization process; 2) support for the implementation of the Socioeconomic aspect of the Normalization process, and 3) support towards strengthening the enabling environment for peace, recovery and development. Additionally, it will support the implementation of social healing and peacebuilding interventions in post-conflict Marawi City. The Programme will be implemented in areas covered by the Comprehensive Agreement on the Bangsamoro (CAB), and as stipulated in the Annex on Normalization signed by the Government of the Philippines (GPH) and Moro Islamic Liberation Front (MILF) in January 2014. It will be implemented over a period of one (1) year.

As part of the Normalization process, the GPH and the MILF have agreed to intensify development efforts for rehabilitation, reconstruction and development of the conflict-affected areas. In particular, socio-economic development programs are being instituted to address the needs of Bangsamoro Islamic Armed Forces (BIAF) members, internally displaced persons (IDPs) and poverty-stricken communities in the Bangsamoro. Towards this end, the GPH and MILF Parties through the Joint Task Forces on Community Transformation (JTFCT) are undertaking necessary measures to support the transformation of the six (6) previously acknowledged MILF camps, namely: (1) Abubakar-as-Siddique in Maguindanao; (2) Badre in Maguindanao; (3) Omar Ibn al-Khattab in Maguindanao; (4) Rajamuda in North Cotabato; (5) Bushra Somiorang in Lanao del Sur; and, (6) Bilal spanning Lanao del Norte and Lanao del Sur.

Among the various interventions identified under this Programme to continue the camps transformation is the off-grid electrification of selected communities and households in the six camps. This project is a continuation of a similar initiative in the first semester of 2017 whereby the JTFCTs, through a solar power system (SPS) Supplier, completed the installation of 3,001 solar-powered facilities in 2,728 households and 273 communal facilities, to include schools, madaris, mosques, orphan care centers, day care centers, multi-purpose centers and a bridge, among others, within the aforementioned camps. For this phase of the SPS (Off-Grid) Project, SPAN needs to procure, deliver and install the remaining commitment of 597 SPS kits in the six camps and its communities. UNDP—being the implementing partner of OPAPP for SPAN and designated Procuring Entity—

will facilitate the procurement of the SPS kits and their subsequent installation at the camps in coordination with the JTFCTs.

## **B. ACTIVITY DESCRIPTION & SPECIFIC OBJECTIVES**

The SPS (Off-Grid) Project under SPAN is expected to yield the same results as those in the initial phase, to wit:

- enable communities to reap the initial dividends of the peace process
- provide immediate access to off-grid electrification
- promote sense of community among stakeholders in the project sites, and
- strengthen the people's confidence on the GPH-MILF partnership

The Project will specifically reinforce Phase I results such as heightening physical sense of security within the camps, encourage schoolchildren to study more after school, and provide electrical energy for the day to day needs of selected household, among others. The Project is one of the initiatives identified to help continue the transformation of camps into peaceful and productive communities.

In order to deliver its commitment, UNDP will be engaging the services of a Supplier (firm) directly involved in the supply, delivery and installation of off-grid solar power systems for communal facilities and home use. The engagement shall be treated as one (1) lot and the firm should be able to deliver the following key services:

- Supply and deliver the required number and type of SPS kits across all camps within the prescribed period;
- Manage the installation of SPS kits in all sites, and ensure that all are tested and fully functional prior to handover to beneficiaries;
- Conduct orientation/training (capacity building) on the installation, use, troubleshooting, care and maintenance for locals-beneficiaries equivalent in number to at least 25% of the SPS kits distributed in each camp; and,
- Clearly define at the onset the warranty coverage and process for claims, and ensure the availability of goods, parts and service technicians (if needed) to promptly respond to valid claims

The selected Supplier shall work directly with a joint OPAPP-UNDP Project Team that would in turn be closely coordinating with the JTFCT for the overall supervision of project activities at the camps. The deliverables of the Supplier shall be clearly defined under the terms and conditions of the contract to be issued. Any needed change(s) during the course of project implementation, as circumstances would warrant, shall be discussed and agreed by all parties concerned. It will be duly documented to effect the same binding nature and formality as the original contract. Implementation monitoring, quality assurance and issuance of certification for work completion shall be handled by the same OPAPP-UNDP Project Team.

## **C. SCOPE OF WORK AND GENERAL TERMS AND CONDITIONS**

The Supplier's duties and responsibilities, as well as the general terms and conditions for this engagement, are listed below.

## 1. Supply of SPS Kits

Solar Kit A – 30 Watts (558 units)	Description and minimum/mandatory specifications	Statement of Compliance
Component No. 1 Photovoltaic Panel		Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each specification stating the corresponding performance parameter of the equipment offered.  Statements of "Comply" or "Not Comply" must be supported by evidence during bid submission and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, Unconditional statements of specification and compliance issued by the manufacturer, samples, and independent test data, among others, as appropriate.  A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the bid under evaluation liable for rejection.
Item 1.1 Photovoltaic Modules	<ul style="list-style-type: none"><li>- 30 watts Photovoltaic Modules per package</li><li>- Rated power per module: <u>0.833W</u></li><li>- Total Rated Power: <u>30W</u></li><li>- PV Module Specifications at Standard Test Condition (STC) as per <u>ISO ROHS IEC 61215</u> Certification:<ul style="list-style-type: none"><li>• <b>Maximum Power</b> at STC: <u>30W</u></li><li>• <b>Maximum Power Voltage:</b> <u>17.80V</u></li><li>• <b>Maximum Power Current:</b> <u>1.69A</u></li><li>• Open Circuit Voltage: <u>21.60V</u></li><li>• <b>Short Circuit Current:</b> <u>1.81A</u></li><li>• <b>Module Efficiency:</b> <u>17%</u></li><li>• <b>Power Tolerance:</b> <u>0~+3%</u></li><li>• <b>Module Weight:</b> <u>3.05KG</u></li><li>• <b>Maximum load (Snow/Wind):</b> <u>1m/s</u></li><li>• <b>Guarantees:</b> <u>1 year</u></li></ul></li></ul>	
Item 1.2 Mounting Structure	<ul style="list-style-type: none"><li>• Dimensions of the frame support shall accommodate the Structure</li><li>• Size of the solar modules: <u>650*360*30MM</u></li><li>• Frame material: <u>aluminum alloy</u></li><li>• Frame bolts and nuts: <u>M12*25*2</u></li><li>• Pole Mount material: N/A<ul style="list-style-type: none"><li>◦ Foundation: N/A</li><li>◦ Mounting structure design: <u>Wall mounted with set screw</u></li></ul></li></ul>	
Component No. 2 Charge Controller and Inverter Unit		A statement either in the bidders statement of compliance or the supporting evidence that is found to be false either during bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent that would subject the bidder/Supplier to liabilities as warranted by local laws.
Item 2.1 Charge Controller	<ul style="list-style-type: none"><li>• Nominal Voltage: 12v</li><li>• Input Voltage Range: 10.8~14.4V</li><li>• Charging Current Rating: 20A</li><li>• Regulation method: MPPT</li><li>• Charging Algorithm: 5-7 Hours</li><li>• Full charge voltage: 12v</li><li>• Float charge voltage: 12v</li></ul>	
Item 2.2 Inverter	<ul style="list-style-type: none"><li>• Operating Voltage: n/a.</li><li>• Low battery disconnect voltage: n/a.</li><li>• Battery reconnect voltage: n/a.</li><li>• Continuous AC Output Rating: n/a.</li><li>• Surge Capacity: n/a.</li><li>• Conversion Efficiency: n/a</li><li>• AC Output Voltage: n/a.</li><li>• AC Output Frequency: n/a.</li><li>• AC Output Waveform: n/a</li><li>• LED Status Indicators: n/a<ul style="list-style-type: none"><li>◦ Audible Indicator: n/a</li></ul></li><li>• Protections: n/a</li><li>• Thermal management: n/a</li><li>• Terminal connections: n/a</li><li>• AC Outlets: n/a</li><li>• Mounting: n/a</li><li>• Approvals &amp; Certification to recognized International Standards: n/a</li></ul>	

Solar Kit A – 30 Watts (558 units)	Description and minimum/mandatory specifications	Statement of Compliance
Component No. 3 Energy Storage Battery		
Battery	<ul style="list-style-type: none"><li>Battery Technology: <u>lead acid battery</u></li><li>Maintenance Type: <u>Maintenance free</u></li><li>Rating: <u>A+</u></li><li>Nominal Voltage: <u>12V</u></li><li>Full charge voltage: 14.4V</li><li>Float charge voltage: 13.8V</li><li>Minimum cycles at 30% DOD: <u>1200</u></li><li>Approvals &amp; Certification to recognized International Standards: ISO 9001</li><li>Battery Box: 0 with lockable and insulated top cover<ul style="list-style-type: none"><li>Access for battery cable to inverter/charge controller</li><li>Elevated from the floor by at least 5cm</li><li>Dimension of the metal enclosure to accommodate the batteries with 10% of free space on top between the batteries and the cover</li></ul></li><li>Battery Interconnection Cables: <u>16mm<sup>2</sup> cable</u></li></ul>	
Component No. 4 Cables and Peripherals		
4.1 PV wires combiner	Yes, Junction Box with MC4 ( connect )	
4.2 PV to Controller/Inverter cable, maximum 20 meters	2.5mm <sup>2</sup> cable	
4.3 Controller/Inverter to Battery cable, maximum 2 meters	16mm <sup>2</sup> cable	
4.4 Inverter to load distribution panel cable, maximum 5 meters	Yes	
4.5 Load Distribution Panel	DC 12V Charging Accessories and LED Lights	
4.6 LED Lamps	Rated wattages: <u>200000Hrs</u> Input voltage: <u>12V</u> Input frequency: <u>50-60Hz</u> Color: <u>White</u> Correlated Color Temperature (CCT): <u>6000K</u> Color Rendering Index (CRI): <u>80</u> System Efficacy: <u>DC</u> Lumen maintenance: <u>100LM/W</u> Base: E 27 Lamp holder and extension: <u>5M/10M Cable with switch</u>	
NOTE: <ul style="list-style-type: none"><li>Bidders may bid junction boxes with plug-and-play</li><li>All SPS kits shall not be subject to geo-tagging</li><li>All inverters for the SPS kits shall be sealed only after OPAPP-UNDP Project Team conducted an inspection</li><li>Matrix of Compliance of Technical Specifications shall be submitted together with the legal requirements during bid submission</li></ul>		

Solar Kit B – 50 Watts (12 units)	Description and minimum/mandatory specifications	Statement of Compliance
Component No. 1 Photovoltaic Panel		Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each specification stating the corresponding performance parameter of the equipment offered.  Statements of "Comply" or "Not Comply" must be supported by evidence during bid submission and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, Unconditional statements of specification and compliance issued by the manufacturer, samples, and independent test data, among others, as appropriate.  A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the bid under evaluation liable for rejection.  A statement either in the bidders statement of compliance or the supporting evidence that is found to be false either during bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent that would subject the bidder/Supplier to liabilities as warranted by local laws.
Item 1.1 Photovoltaic Modules	<ul style="list-style-type: none"><li>- 50 watts Photovoltaic Modules per package</li><li>- Rated power per module: <u>1.388W</u></li><li>- Total Rated Power: <u>50W</u></li><li>- PV Module Specifications at Standard Test Condition (STC) as per <u>ISO ROHS IEC 61215</u> Certification:<ul style="list-style-type: none"><li>• <b>Maximum Power</b> at STC: <u>50W</u></li><li>• <b>Maximum Power Voltage</b>: <u>17.80V</u></li><li>• <b>Maximum Power Current</b>: <u>2.81A</u></li><li>• <b>Open Circuit Voltage</b>: <u>21.60V</u></li><li>• <b>Short Circuit Current</b>: <u>3.01A</u></li><li>• <b>Module Efficiency</b>: <u>17%</u></li><li>• <b>Power Tolerance</b>: <u>0~+3%</u></li><li>• <b>Module Weight</b>: <u>3.85KG</u></li><li>• <b>Maximum load (Snow/Wind)</b>: <u>1m/s</u></li><li>• <b>Guarantees</b>: <u>1 year</u></li></ul></li></ul>	
Component No. 2 Charge Controller and Inverter Unit		
Item 2.1 Charge Controller	<ul style="list-style-type: none"><li>• Nominal Voltage: <u>12V</u></li><li>• Input Voltage Range: <u>10.8~14.4V</u></li><li>• Charging Current Rating: <u>20A</u></li><li>• Regulation method: <u>MPPT</u></li><li>• Charging Algorithm: <u>6-7 Hours</u></li><li>• Full charge voltage: <u>14.4V</u></li><li>• Float charge voltage: <u>13.8V</u></li></ul>	
Item 2.2 Inverter	<ul style="list-style-type: none"><li>• Operating Voltage: <u>12V</u></li><li>• Low battery disconnect voltage: <u>10.8V</u></li><li>• Battery reconnect voltage: <u>12.6V</u></li><li>• Continuous AC Output Rating: <u>300W</u></li><li>• Surge Capacity: <u>600VA</u></li><li>• Conversion Efficiency: <u>≥85%</u>.</li><li>• AC Output Voltage: <u>220V/230V</u></li><li>• AC Output Frequency: <u>50HZ/60HZ</u></li><li>• AC Output Waveform: <u>Pure sine wave</u></li><li>• LED Status Indicators: <u>YES</u></li><li>• Audible Indicator: <u>YES</u></li><li>• Protections: <u>Overload protection, short circuit protection, Over temperature protection</u></li><li>• Thermal management: <u>Air cooling</u></li><li>• Terminal connections: <u>M5</u></li><li>• AC Outlets: <u>universal socket</u></li><li>• Mounting: <u>inverter build in solar kits ( with wheel ); panels can be Wall mounted or DIN-Rail Mounting</u></li><li>• Approvals &amp; Certification to recognized International Standards: <u>CE, RoHs, ISO</u></li></ul>	
Component No. 3 Energy Storage Battery		
Battery	<ul style="list-style-type: none"><li>• Battery Technology: <u>lead acid battery</u></li><li>• Maintenance Type: <u>Maintenance free</u></li><li>• Rating: <u>A+</u></li><li>• Nominal Voltage: <u>12V</u></li><li>• Full charge voltage: <u>14.4V</u>.</li><li>• Float charge voltage: <u>13.8V</u>.</li></ul>	

Solar Kit B – 50 Watts (12 units)	Description and minimum/mandatory specifications	Statement of Compliance
	<ul style="list-style-type: none"> <li>Minimum cycles at 30% DOD: <u>1200</u></li> <li>Approvals &amp; Certification to recognized International Standards: ISO 9001</li> <li>Battery Box: 0 with lockable and insulated top cover <ul style="list-style-type: none"> <li>Access for battery cable to inverter/charge controller</li> <li>Elevated from the floor by at least 5cm</li> <li>Dimension of the metal enclosure to accommodate the batteries with 10% of free space on top between the batteries and the cover</li> </ul> </li> <li>Battery Interconnection Cables: <u>16mm<sup>2</sup> cable</u></li> </ul>	
<b>Component No. 4 Cables and Peripherals</b>		
4.1 PVwires combiner	Yes, Junction Box with MC4 (connect )	
4.2 PVto Controller/Inverter cable, maximum 20 meters	2.5mm <sup>2</sup> cable	
4.3 Controller/Inverter to Battery cable, maximum 2 meters	16mm <sup>2</sup> cable	
4.4 Inverter to load distribution panel cable, maximum 5 meters	Yes	
4.5 Load Distribution Panel	Such as AC TV, fan, Lamp and others	
4.6 LED Lamps	Rated wattages: <u>200000Hrs</u> Input voltage: <u>12V</u> Input frequency: <u>50-60 Hz</u> Color: <u>White</u> Correlated Color Temperature (CCT): <u>6000K</u> Color Rendering Index (CRI): <u>80</u> System Efficacy: <u>DC</u> Lumen maintenance: <u>100LM/W</u> Base: E 27 Lamp holder and extension: <u>5M/10M Cable with switch</u>	
<b>NOTE:</b> <ul style="list-style-type: none"> <li>Bidders may bid junction boxes with plug-and-play</li> <li>All SPS kits shall not be subject to geo-tagging</li> <li>All inverters for the SPS kits shall be sealed only after OPAPP-UNDP Project Team conducted an inspection</li> <li>Matrix of Compliance of Technical Specifications shall be submitted together with the legal requirements during bid submission</li> </ul>		

Solar Kit C – 120 Watts (120 units)	Description and minimum/mandatory specifications	Statement of Compliance
Component No. 1 Photovoltaic Panel		Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each specification stating the corresponding performance parameter of the equipment offered.  Statements of "Comply" or "Not Comply" must be supported by evidence during bid submission and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, Unconditional statements of specification and compliance issued by the manufacturer, samples, and independent test data, among others, as appropriate.  A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the bid under evaluation liable for rejection.  A statement either in the bidders statement of compliance or the supporting evidence that is found to be false either during bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent that would subject the bidder/Supplier to liabilities as warranted by local laws.
Item 1.1 Photovoltaic Modules	<ul style="list-style-type: none"><li>- 120 watts Photovoltaic Modules per package</li><li>- Rated power per module: <u>3.333W</u></li><li>- Total Rated Power: <u>120W</u></li><li>- PV Module Specifications at Standard Test Condition (STC) as per <u>ISO ROHS IEC 61215</u> Certification:<ul style="list-style-type: none"><li>• <b>Maximum Power</b> at STC: <u>120W</u></li><li>• <b>Maximum Power Voltage:</b> <u>17.80V</u></li><li>• <b>Maximum Power Current:</b> <u>6.75A</u></li><li>• <b>Open Circuit Voltage:</b> <u>21.60V</u></li><li>• <b>Short Circuit Current:</b> <u>7.22A</u></li><li>• <b>Module Efficiency:</b> <u>17%</u></li><li>• <b>Power Tolerance:</b> <u>0~+3%</u></li><li>• <b>Module Weight:</b> <u>8.70KG</u></li><li>• <b>Maximum load (Snow/Wind):</b> <u>1m/s</u></li><li>• <b>Guarantees:</b> <u>1 year</u></li></ul></li></ul>	
Component No. 2 Inverter Unit		
Item 2.1 Inverter (600W)	<ul style="list-style-type: none"><li>• Operating Voltage: 12V</li><li>• Low battery disconnect voltage: 10.8V</li><li>• Battery reconnect voltage: 12.6V</li><li>• Continuous AC Output Rating: 600W</li><li>• Surge Capacity: 1200VA</li><li>• Conversion Efficiency: <u>≥85%</u></li><li>• AC Output Voltage: <u>220V/230V</u></li><li>• AC Output Frequency: <u>50HZ/60HZ</u></li><li>• AC Output Waveform: <u>Pure sine wave</u></li><li>• LED Status Indicators: <u>YES</u></li><li>• Audible Indicator: <u>YES</u></li><li>• Protections: <u>Overload protection, short circuit protection, Over temperature protection</u></li><li>• Thermal management: <u>Air cooling</u></li><li>• Terminal connections: <u>M5</u></li><li>• AC Outlets: <u>universal socket</u></li><li>• Mounting: <u>inverter build in solar kits ( with wheel ); panels can be Wall mounted or DIN-Rail Mounting</u></li><li>• Approvals &amp; Certification to recognized International Standards: <u>CE, RoHs, ISO</u></li></ul>	
Component No. 3 Energy Storage Battery		
Battery	<ul style="list-style-type: none"><li>• Battery Technology: <u>lead acid battery</u></li><li>• Maintenance Type: <u>Maintenance free</u></li><li>• Rating: <u>A+</u></li><li>• Nominal Voltage: <u>12V</u></li><li>• Full charge voltage: 14.4V</li><li>• Float charge voltage: 13.8V</li><li>• Minimum cycles at 30% DOD: <u>1200</u></li><li>• Approvals &amp; Certification to recognized International Standards: <u>ISO 9001</u></li><li>• Battery Box: 0 with lockable and insulated top cover</li></ul>	

Solar Kit C – 120 Watts (120 units)	Description and minimum/mandatory specifications	Statement of Compliance
	<ul style="list-style-type: none"> <li>o Access for battery cable to inverter/charge controller</li> <li>o Elevated from the floor by at least 5cm</li> <li>o Dimension of the metal enclosure to accommodate the batteries with 10% of free space on top between the batteries and the cover</li> <li>• Battery Interconnection Cables: <u>16mm<sup>2</sup> cable</u></li> </ul>	Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each specification stating the corresponding performance parameter of the equipment offered.
<b>Component No. 4 Cables and Peripherals</b>		
4.1 PVwires combiner	Yes, Junction Box with MC4 ( connect )	
4.2 PVto Controller/Inverter cable, maximum 20 meters	2.5mm <sup>2</sup> cable	Statements of "Comply" or "Not Comply" must be supported by evidence during bid submission and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, Unconditional statements of specification and compliance issued by the manufacturer, samples, and independent test data, among others, as appropriate.
4.3 Controller/Inverter to Battery cable, maximum 2 meters	16mm <sup>2</sup> cable	
4.4 Inverter to load distribution panel cable, maximum 5 meters	Yes	
4.5 Load Distribution Panel	Such as AC & DC TV, fan, lamp, computer and many more	
4.6 LED Lamps	Rated wattages: <u>200000Hrs</u> Input voltage: <u>12V</u> Input frequency: <u>50-60Hz</u> Color: <u>White</u> Correlated Color Temperature (CCT): <u>6000K</u> Color Rendering Index (CRI): <u>80</u> System Efficacy: <u>DC</u> Lumen maintenance: <u>100LM/W</u> Base: E 27 Lamp holder and extension: <u>5M/10M Cable with switch</u>	
		<p>A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the bid under evaluation liable for rejection.</p> <p>A statement either in the bidders statement of compliance or the supporting evidence that is found to be false either during bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent that would subject the bidder/Supplier to liabilities as warranted by local laws.</p>
<b>NOTE:</b> <ul style="list-style-type: none"> <li>• Bidders may bid junction boxes with plug-and-play</li> <li>• All SPS kits shall not be subject to geo-tagging</li> <li>• All inverters for the SPS kits shall be sealed only after OPAPP-UNDP Project Team conducted an inspection</li> <li>• Matrix of Compliance of Technical Specifications shall be submitted together with the legal requirements during bid submission</li> </ul>		

D. Solar Street Light – SSL 50 Watts (12 units)	Description and minimum/mandatory specifications	Statement of Compliance
Component No. 1 Photovoltaic Panel		Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each specification stating the corresponding performance parameter of the equipment offered.  Statements of "Comply" or "Not Comply" must be supported by evidence during bid submission and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, Unconditional statements of specification and compliance issued by the manufacturer, samples, and independent test data, among others, as appropriate.  A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the bid under evaluation liable for rejection.  A statement either in the bidders statement of compliance or the supporting evidence that is found to be false either during bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent that would subject the bidder/Supplier to liabilities as warranted by local laws.  Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each specification stating the corresponding performance parameter of the equipment offered.  Statements of "Comply" or "Not Comply" must be supported by evidence during bid submission and cross-referenced to that evidence. Evidence shall be in the
Item 1.1 Photovoltaic Modules	<ul style="list-style-type: none"><li>- 50 watts Photovoltaic Modules per package</li><li>- Rated power per module: <u>1.388W</u></li><li>- Total Rated Power: <u>50W</u></li><li>- PV Module Specifications at Standard Test Condition (STC) as per <u>ISO ROHS IEC 61215</u> Certification:<ul style="list-style-type: none"><li>• Maximum Power at STC: <u>50W</u></li><li>• Maximum Power Voltage: <u>17.80V</u></li><li>• Maximum Power Current: <u>2.81A</u></li><li>• Open Circuit Voltage: <u>21.60V</u></li><li>• Short Circuit Current: <u>3.01A</u></li><li>• Module Efficiency: <u>17%</u></li><li>• Power Tolerance: <u>0~+3%</u></li><li>• Module Weight: <u>3.85KG</u></li><li>• Maximum load (Snow/Wind): <u>1m/s</u></li><li>• Guarantees: <u>5 years</u></li></ul></li></ul>	
Item 1.2 Mounting Structure	<ul style="list-style-type: none"><li>• Dimensions of the frame support shall accommodate the Structure</li><li>• Size of the solar modules: <u>650*360*30MM</u></li><li>• Frame material: <u>aluminum alloy</u></li><li>• Frame bolts and nuts: <u>M12*25*2</u></li><li>• Pole Mount material: <u>Hot Dipped Galvanized</u><ul style="list-style-type: none"><li>◦ Foundation: <u>Concrete Pedestal</u></li><li>◦ Mounting structure design: <u>Pole mounted with set screw</u></li></ul></li></ul>	
Component No. 2 Charge Controller and Inverter Unit		
Item 2.1 Charge Controller	<ul style="list-style-type: none"><li>• Nominal Voltage: <u>12V</u></li><li>• Input Voltage Range: <u>10.8~14.4V</u></li><li>• Charging Current Rating: <u>20A</u></li><li>• Regulation method: <u>MPPT</u></li><li>• Charging Algorithm: <u>6-8 hours charging</u></li><li>• Full charge voltage: <u>12V</u></li><li>• Float charge voltage: <u>12V</u></li></ul>	
Item 2.2 Inverter	<ul style="list-style-type: none"><li>• Operating Voltage: n/a.</li><li>• Low battery disconnect voltage: n/a.</li><li>• Battery reconnect voltage: n/a.</li><li>• Continuous AC Output Rating: n/a.</li><li>• Surge Capacity: n/a.</li><li>• Conversion Efficiency: n/a</li><li>• AC Output Voltage: n/a.</li><li>• AC Output Frequency: n/a.</li><li>• AC Output Waveform: n/a.</li><li>• LED Status Indicators: n/a.<ul style="list-style-type: none"><li>◦ Audible Indicator: n/a.</li></ul></li><li>• Protections: n/a.</li><li>• Thermal management: n/a.</li><li>• Terminal connections: n/a.</li><li>• AC Outlets: n/a.</li><li>• Mounting: n/a.</li></ul>	

D. Solar Street Light – SSL 50 Watts (12 units)	Description and minimum/mandatory specifications	Statement of Compliance
	<ul style="list-style-type: none"><li>Approvals &amp; Certification to recognized n/a. International Standards: n/a.</li></ul>	<p>form of manufacturer's un-amended sales literature, Unconditional statements of specification and compliance issued by the manufacturer, samples, and independent test data, among others, as appropriate.</p> <p>A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the bid under evaluation liable for rejection.</p> <p>A statement either in the bidders statement of compliance or the supporting evidence that is found to be false either during bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent that would subject the bidder/Supplier to liabilities as warranted by local laws.</p>
<b>Component No. 3 Energy Storage Battery</b>		
Battery	<ul style="list-style-type: none"><li>Battery Technology: <u>lead acid battery</u></li><li>Maintenance Type: <u>Maintenance free</u></li><li>Rating: <u>A+</u></li><li>Nominal Voltage: <u>12V</u></li><li>Full charge voltage: <u>14.4V</u>.</li><li>Float charge voltage: <u>13.8V</u>.</li><li>Minimum cycles at 30% DOD: <u>1200</u></li><li>Approvals &amp; Certification to recognized International Standards: <u>ISO 9001</u></li><li>Battery Box: 0 with lockable and insulated top cover<ul style="list-style-type: none"><li>Access for battery cable to inverter/charge controller</li><li>Elevated from the floor by at least 5cm</li><li>Dimension of the metal enclosure to accommodate the batteries with 10% of free space on top between the batteries and the cover</li></ul></li><li>Battery Interconnection Cables: <u>16mm<sup>2</sup> cable</u></li></ul>	
<b>Component No. 4 Cables and Peripherals</b>		
4.1 PV wires combiner	Yes, junction box with MC4	
4.2 PV to Controller/Inverter cable, maximum 20 meters	2.5mm <sup>2</sup> cable	
4.3 Controller/Inverter to Battery cable, maximum 2 meters	16mm <sup>2</sup> cable	
4.4 Inverter to load distribution panel cable, maximum 5 meters	YES	
4.5 Load Distribution Panel	LED Lamp	
4.6 LED Lamps	Rated wattages: <u>15 Watts</u> Input voltage: <u>12V</u> Input frequency: <u>50-60Hz</u> Color: <u>White</u> Correlated Color Temperature (CCT): <u>6000K</u> Color Rendering Index (CRI): <u>80</u> System Efficacy: <u>DC</u> Lumen maintenance: <u>100LM/W</u> Base: <u>N/A</u> Lamp holder and extension: <u>With Arms</u>	
<b>NOTE:</b> <ul style="list-style-type: none"><li>Bidders may bid junction boxes with plug-and-play</li><li>All SPS kits shall not be subject to geo-tagging</li><li>All inverters for the SPS kits shall be sealed only after OPAPP-UNDP Project Team conducted an inspection</li><li>Matrix of Compliance of Technical Specifications shall be submitted together with the legal requirements during bid submission</li></ul>		

Training Component	Description and minimum/mandatory specifications
	<p>The awarded supplier will provide training services, including training material and on-site training session, before installation of Solar Power System kits at each camp.</p> <p>The duration of each training will be of a minimum of 4 hours, delivered face to face at each camp to a group of 10 selected technicians.</p> <ul style="list-style-type: none"> <li>▪ A training checklist will be signed by the participants after the training is conducted. Training Checklist template will be provided by OPAPP Central Office.</li> <li>▪ Installed solution in the target household/communal facility will be used for the face to face training.</li> <li>▪ Training Manuals in Hardcopies and softcopies (in DVD) shall be provided to each camp.</li> <li>▪ Supplier shall produce Orientation Handbook and deliver one hard copy to each target beneficiary.</li> <li>▪ Training content shall include the following; <ul style="list-style-type: none"> <li><u>Solar Power System</u> <ul style="list-style-type: none"> <li>a) Basic operations of the solar energy system equipment</li> <li>b) Load management</li> <li>c) Basic maintenance of the solar energy system equipment.</li> <li>d) Basic troubleshooting of the solar system equipment</li> <li>e) Orientation on the warranty and reporting procedure</li> </ul> </li> </ul> </li> </ul>
Installation Services Component	<p>The supplier must provide installation services through a Local Company established in The Philippines (please refer to the Bid Data Sheet for further details on the required Organizational Set Up).</p> <p>In case the Main Bidder is not a Philippine company, a signed/notarized agreement between the bidder and affiliated local service partner shall be included in the submission. A valid and current Business Permit shall be attached in the agreement.</p> <p>The bidders must submit the List of Service Centers, along with the contact details of the local support team members and local service manager/s.</p> <p>Local Service Providers' minimum qualifications:</p> <ul style="list-style-type: none"> <li>a) The Local Service Provider must be established in the Philippines and be authorized by the manufacturers of the goods offered to provide technical support services within the country.</li> <li>b) The Local Service Provider must cover technical support centers in all main areas of the country: Metro Manila, Cebu and Davao. The bidder is requested to provide details of the capacity of each of the local technical service providers which they intend to partner with.</li> <li>c) The supplier must ensure that there is a sufficient number of space parts at the Local Service Providers' premises, which are readily available to ensure timely responses and solutions.</li> <li>d) The Local Service Provider's personnel must comply with the following qualifications; <ul style="list-style-type: none"> <li>- Employing at least 1 qualified PV engineer who must have participated in at least 1 of the PV trainings.</li> <li>-</li> </ul> </li> </ul> <p><u>Installation requirements:</u> The installation of the equipment at the camps will commence upon delivery of the goods.</p> <p>The bidders are requested to provide a preliminary installation plan, covering the six camps, organized by barangay complying with the requested implementation timelines.</p> <ul style="list-style-type: none"> <li>- Installation set-up:</li> </ul>

	<p>All necessary cables, adaptors and connections must be provided by the supplier in order to complete a functional installation of the solution supplied to each household/communal facility.</p> <p>The mounting structure with solar modules must be placed on the roof of the household/communal facility with maximum solar exposure, free from shading, accessible for maintenance and repair, within an area not to exceed the total cable length from the solar array to the charge controller of 20 meters. The three solar modules to be connected in parallel via MC4 3 to 1 combiners. The cable from the solar array to the charge controller shall enter household/communal facility with a drip loop to avoid entry of water into the house/building structure. The cables shall be fastened with cable ties, clamps and staple wires.</p> <p>Solar kit enclosure</p> <p>A metal enclosure with handle where the charge controller, inverter, battery, load was placed. The AC/DC switch, battery level indicator, solar charging indicator, AC/DC voltage indicator, USB charging slot, battery breaker, and solar input are integrated on the enclosure shall be installed inside the house/building in a location where they can be securely mounted and does not obstruct the path of the beneficiaries. The charge controller/inverter unit shall be mounted on a wall above the battery box containing the three batteries with a maximum cable length from the battery terminal to the inverter input of 2 meters.</p> <p>The LED lamps shall be screwed into the e27 sockets and mounted on the ceiling of the classroom. The lamps shall be plugged to the Load Distribution panel where they can be individually switched.</p> <p>The PV panels, mounting structure shall bear a sticker with JTFCT acronym. Stickers to be provided by the supplier according to the following specifications:</p> <ul style="list-style-type: none"> <li>○ Self-adhesive thick and waterproof resistant vinyl material stickers with glossy finish.</li> <li>○ Pre-printed in 1 colors on white background</li> <li>○ Approximate size: 2 x 2 inches</li> </ul> <p>Strong glue ensure that the stickers will not be easily detached/unglued, especially in hot, very humid and rainy weather conditions.</p>
<b>Warranty and Technical Support Services Component</b>	<p>Warranty coverage and after sale technical support services are required for the Solar Power System for a period 1 year.</p> <p>The Solar Power System is subject to functional warranty to ensure that it will be in good running condition, providing electricity.</p> <p>The warranty for all items and components will commence after the items have been delivered and installed, on the same day that the solution has been accepted by the End User.</p> <p>The warranty shall be provided by the manufacturer. In case that the manufacturers' warranty for any item is inferior to 1 year, the remaining period shall be covered by the supplier.</p> <p>The supplier will be requested to provide all necessary licenses and certificates that confirm that end user will receive 1 year of support service from the manufacturers or from the supplier.</p> <p><b>Technical Support Service Requirements:</b></p> <ol style="list-style-type: none"> <li>1. JTFCT will provide feed backing system to be used as a tool of the suppliers, beneficiaries to report/monitor deployment and process technical support reported by the recipients. <ul style="list-style-type: none"> <li>○ The supplier will be requested to provide the Company profiles and Technical Support contact details to be uploaded in the system. Two (2) different mobile numbers from the maintain telephone companies to be provided and to be operational at least 8 hours/day and 5 days/week (business hours and days), including the website address and email address.</li> </ul> </li> <li>2. The supplier shall act on all reported issues by deploying support technicians for troubleshooting, and repair purposes or telephone assistance, as necessary.</li> <li>3. Requested resolution times:</li> </ol>

	<ul style="list-style-type: none"> <li>○ Seven-day guarantee to repair the system or unit/s upon receipt of the request.</li> <li>○ In case unit/s cannot be repaired within the seven (7) day guarantee period, the unit/s must be placed within a maximum of fourteen (14) calendar days. Replacement must be installed prior to the pull out of the defective or unrepairable unit/s.</li> </ul> <p>4. No pull-out of any equipment for repair/replacement shall be made without written authorization from the supplier duly approved by the JTFCTs or his/her authorized representative.</p> <p>5. Supplier shall submit monthly summary reports of received, resolved, pending and closed issues to the end-user.</p> <p>All Service Level Agreement (SLA) covering all the requirements above will be signed with the awarded supplier.</p>
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## 2. Delivery and Documentation Required

The SPS kits in listed in the preceding section, including ancillary components (if any), shall be delivered to the following camps for inspection and storage prior to on-site installation:

CAMP	TARGET SITES	DROP OFF POINT
Omar Ibn al-Khattab in Maguindanao	Datu Hoffer, Maguindanao	Barangay Tuayan, Datu Hoffer, Maguindanao
	Brgy. Saniag, Ampatuan, Maguindanao	Sitio Upper Malating
Badre in Maguindanao	Kenebeka, Datu Odin Sinsuat	Poblacion Dalican, Datu Odin Sinsuat
	Sibuto, Datu Odin Sinsuat	
	Sitio Katulanga, Datalpandan, Guindulungan	Brgy. Datal Pandan, Guindulungan
	Ahan, Guindulungan	
	Sifaran, Datu Odin Sinsuat	Brgy. Kurintem, Datu Odin Sinsuat
Abubakar-as-Siddique in Maguindanao	Guiling, Alamada, North Cotabato	Nursery Making, Parang, Maguindanao
	Pabrica Marogong, Lanao del Sur	
Rajamuda in North Cotabato	Kilangan, Pagalungan, Maguindanao	Brgy. Kilangan, Pagalungan, Maguindanao
	Dalgan, Pangalungan, Maguindanao	
	Sitio Singko, Kudal, Pagalungan, Maguindanao	
	Sadangen, General Salipada K. Pendatun, Maguindanao	
Bilal spanning Lanao del Norte and Lanao del Sur	Sitio Bandara-inged, Munai, Lanao del Norte	Brgy. Dilabayan, Kauswagan, Lanao del Norte
	Lamaosa, Tangcal, Lanao del Norte	
Bushra Somiorang in Lanao del Sur	Brgy. Wago, Lumbayanague, Lanao del Sur	Brgy. Wago, Lumbayanague, Lanao del Norte

All related inquires to firm up the bid proposals shall be entertained during this conference. An addendum to the original terms of reference (TOR), if necessary, shall be issued after the conference to reiterate or clarify vague or contradictory terms and conditions of the TOR.

The Supplier shall inform the OPAPP-UNDP Project Team at least a week prior to start of the targeted delivery schedule to ensure proper coordination with and issuance of clearance by the JTFCT. Upon delivery of the goods to the Project sites, the Supplier shall present the following documents to designated representative(s) of the Project Team:

- Original and copies of the Supplier's invoice showing the goods' description, quantity, unit price and grand total
- Original Supplier's factory inspection report on goods due for delivery
- Original and copies of manufacturer's and/or Suppliers warranty certificate
- Transportation/delivery receipt or waybill detailing exact number and description of items received signed by the authorized receiving personnel
- Certificate of Acceptance/Inspection Report signed by the Project Team's representative(s) on-site
- Copies of the Invoice Receipt for Property signed by the Project Team's representative(s) on-site

Risk and responsibility transferred from the Supplier to the Project (either through the Team's representative or camp-in-charge) shall only be limited to physical security of goods (i.e., against theft or losses) and physical damage during safekeeping due to unauthorized handling and exposure to natural elements. Ensuring that these goods are in working condition and operate as rated shall remain with the Supplier until all SPS kits are installed and tested, and the Certificate of Completion of Work is issued by the JTFCT.

### **3. Incidental Services**

The Supplier is required to provide all of the following services, including additional ones as may be identified during the pre-bid conference:

- Performance and supervision of on-site assembly and commissioning of the SPS kits
- Furnishing of tools required for the assembly, testing and maintenance of the supplied goods
- Furnishing of detailed operations, basic troubleshooting and maintenance manual for each of the SPS kits or the critical parts thereof
- Performance, supervision, maintenance and/or repair of the SPS kits, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations
- Orientation/training on-site on assembly, start-up, operation, troubleshooting, care and maintenance of the supplied goods for at least 150 participants—the breakdown of which shall be prorated based on the percentage distribution of SPS kits for each camp.

The bid proposal should be able to indicate the unit cost of SPS kits, cost for delivery and installation, and the amount to be charged by the Supplier for the indicated incidental services which should not exceed prevailing rates charged to other parties by the Supplier for similar services.

### **4. Spare Parts**

The Supplier is required to provide all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- Such spare parts that are usually or likely to be damaged, even with normal and properly maintained use, within a three (3)-year period after installation;
- Such spare parts as the OPAPP or beneficiaries of SPS kits may elect to purchase from the Supplier as back-up supply or as may be needed later, provided that this election shall not relieve the Supplier of any warranty obligations under this engagement; and,
- In the event of termination of production of the spare parts or impending phasing out of said items in the market within a three (3)-year period:

- (a) advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the OPAPP and/or beneficiaries to procure needed requirements; and,
- (b) following such termination, furnishing at no cost to the OPAPP-UNDP Team, the blueprints, drawings and specifications of the spare parts, if requested.

The spare parts likely to be needed and the cost thereof should be indicated in the bid documents and shall form part of the basis for selecting the most responsive and most economical bid. The submission of bid proposal constitutes a guarantee from the Supplier that there are sufficient inventories to assure ex stock supply of consumable spares for the SPS kits for a period of three times of the warranty period (i.e., three years). Other spare parts and components shall be supplied as promptly as possible, but in any case within reasonable time.

## **5. Packaging**

The Supplier shall provide such packaging of all SPS kits, especially the moving and fragile parts, as needed to prevent their damage or deterioration during transit to their final on-site destination. The packaging shall be sufficient to withstand, without limitation, rough handling and stacking during transit, exposure to extreme temperatures during transport and temporary storage, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities or equipment at all points in transit.

The packaging, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided by the Project Team, including additional requirements, if any, specified below, and in any subsequent instructions ordered by OPAPP-UNDP. The outer packaging must be clearly marked on at least four (4) sides as follows:

- Name of the Procuring Entity (to be agreed upon by the OPAPP-UNDP Project Team with the JTFCT)
- Name of the Supplier
- Package Description
- Final Destination Gross weight
- Any special lifting instructions
- Any special handling instructions
- Any relevant hazardous chemical classifications

A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical. If not practical the packaging list is to be placed inside the outer packaging but outside the secondary packaging.

## **6. Insurance**

The SPS kits to be supplied under this engagement shall be fully insured by the Supplier against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery. The Goods remain at the risk and title of the Supplier until their final acceptance by the Procuring Entity.

## **7. Transportation**

All related transportation arrangements and costs, taking into consideration the total number of loading and unloading required to complete deliveries from the Supplier's warehouse to project sites, shall be arranged and paid for by the Supplier, and the cost thereof shall be computed and included in the bid proposal.

The Supplier shall notify the Project Team of the delivery schedule, including delays and its cause(s). OPAPP-UNDP accepts no liability for the damage of goods during transit or from additional costs incurred arising from delays in shipment and on-site delivery.

## 8. Patent Rights

The Supplier shall indemnify the Procuring Entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the SPS kits or any parts thereof.

### D. DELIVERABLES AND SCHEDULES/EXPECTED OUTPUTS

<b>Deliverables/ Outputs*</b>	<b>Estimated Duration to Complete</b>	<b>Target Due Dates</b>	<b>Review and Approvals Required</b>	<b>Name and Email address of designated person who will review and accept the output</b>
<b>Supply, Delivery and Installation 558 units</b> For small home use  30wp	Dec 2018	Dec. 30, 2018	Engr. Jake Abdulla OPAPP Solar Panel Expert	Leila Halud GPH TFCT Secretariat leila.halud@gmail.com OR Mohaimen Usman MILF TFCT Secretariat Mohaimenusman3@gmail.com
<b>Supply, Delivery and Installation 12 units</b> For masjid, warehouse and day care center  50wp	Dec 2018	Dec. 30, 2018	Engr. Jake Abdulla OPAPP Solar Panel Expert	Leila Halud GPH TFCT Secretariat leila.halud@gmail.com OR Mohaimen Usman MILF TFCT Secretariat mohaimenusman3@gmail.com
<b>Supply, Delivery and Installation 12 units</b> For street lighting  50wp (streetlight)	Dec 2018	Dec. 30, 2018	Engr. Jake Abdulla OPAPP Solar Panel Expert	Leila Halud GPH TFCT Secretariat leila.halud@gmail.com OR Mohaimen Usman MILF TFCT Secretariat mohaimenusman3@gmail.com
<b>Supply, Delivery and Installation 120 units</b>  120wp	Dec 2018	Dec. 30, 2018	Engr. Jake Abdulla OPAPP Solar Panel Expert	Leila Halud GPH TFCT Secretariat leila.halud@gmail.com OR Mohaimen Usman MILF TFCT Secretariat mohaimenusman3@gmail.com

<b>Conduct of Training</b>	Dec 2018	Dec. 30, 2018	Engr. Jake Abdulla OPAPP Solar Panel Expert	Leila Halud GPH TFCT Secretariat leila.halud@gmail.com OR Mohaimen Usman MILF TFCT Secretariat mohaimenusman3@gmail.com
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\*Please see details in the specifications

#### E. GOVERNANCE AND ACCOUNTABILITY

Under the overall guidance of the OPAPP-Assistant Secretary for Policy and Programs and the direct supervision of OPAPP designated Solar Panel Expert (Engr. Abdullah), the supplier shall deliver all the items provided in the contract.

#### F. EXPECTED DURATION OF THE CONTRACT/ASSIGNMENT

The contract shall be valid for 120 days from the signing of the contract.

#### G. DUTY STATION

The supplier is not required to report to OPAPP but should assign a focal person in Cotabato City to coordinate with OPAPP designated solar panel expert. The supplier or his representative is also required to attend meetings which shall be called from time to time in relation to the agreements in the contract.

#### F. TIMEFRAME

The procurement, supply, installation, commissioning and handover of SPS kits to beneficiaries at the project sites are expected to take about three (3) months. Below is the indicative timeline for this project:

Activity	Month 1				Month 2				Month 3				Month 4	
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2
<b>Procurement and Selection of Supplier</b>														
TOR finalization and approval														
Invitation to apply for eligibility and to bid														
Conduct of pre-bid conference with prospective suppliers														
Preparation and submission of bid proposal														
Opening of bids, bid evaluation and clarifications														
Award of contract and issuance of Notice to Proceed														
Activity	Month 1				Month 2				Month 3				Month 4	
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2
<b>Project Implementation</b>														
Inception meeting with OPAPP-UNDP and JTFCT														
Start of shipment and distribution of SPS kits														
Start of user orientation/training and installation														
Commissioning and monitoring (repair/replace if needed)														
Official handover to project beneficiaries														

Activity	Month 1				Month 2				Month 3				Month 4	
	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2	W3	W4	W1	W2
(i.e., certification that kits are fully operational)														
Issuance of Certificate of Completion of Work														

#### G. QUALIFICATIONS OF BIDDER/SUPPLIER AND ITS KEY PERSONNEL

The bidder/Supplier shall have the following minimum qualifications:

- Eligibility requirements as prescribed in the bid documents to be issued by Procurement Unit
- Authorized dealer/supplier/distributor of the (brand) goods in the Philippines [Note: Sub-contracting or re-selling is not allowed for this engagement]
- Holder of valid documents to operate as dealer/supplier/distributor which includes, but not limited to, registration certificates, local business permits and tax clearance
- Office(s) and warehouse(s) located within the Philippines
- Should have satisfactorily completed, within five (5) years upon receipt of bid documents, contract(s) similar to the Project with a contract cost of at least ten million pesos (PHP10,000,000.00) *“to ensure that winning bidder has the concrete reputation/track record that they can immediately implement the Project even without waiting for the Project fund to fast track implementation considering that 2018 is already ending and that MILF communities long awaits the Project”* . Bidder will be required to submit a statement of all ongoing and completed government and private contracts indicating the project description, total amount per contract, and contact details (i.e., name of focal person, email and number) of the contracting party or procuring entity.
- The supplier’s Team Leader should be a licensed PV Engineer with at least five (5) years experience in solar panel installation. All other PV technicians should have at least three (3) years of experience in solar panel installation, preferably with the knowledge on the language and culture of the area.
- Must have active website reflecting its institutional and operational operations with feedback system

expense or loss that may be incurred for the preparation of bids, nor does it guarantee that an award will be made.

#### I. SCHEDULE OF PAYMENT

Funding for this engagement shall be drawn from SPAN Programme under activity budget line for **Outcome 2 Output 4.1** (provision of 597 solar-powered facilities in household and communal facilities in the six priority camps). The selected Supplier shall be remunerated based on the following payment schedule:

Payment Schedule	Percentage of Contract Amount	Payment Conditions
1 <sup>st</sup> payment	20%	Upon signing of contract
2 <sup>nd</sup> payment	40%	Upon delivery of all SPS kits in all camps and the submission of documentary requirements as listed in Section C.1
3 <sup>rd</sup> payment and final payment	40%	Upon commissioning of all SPS kits (i.e., all operational), handover to beneficiaries and issuance of <i>Certificate of Completion of Work</i> from RPBU

