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To:	**: To potential Vendors**
From:	**: Creative Associates International, Inc.**
Subject:	**: Supply and Installation of Solar Powered Flood Light in Dikwa LGA Borno State**
RFQ number:	**: NLCB205**
RFQ Issue Date:	**: 18 June 2020**
RFQ Closing Date:	**: 2 July 2020**
RFQ Closing Time:	**: 4:00 PM – Local Time Abuja, Nigeria (UTC +01:00)**
Contract Number:	**: United States Agency for International Development (USAID), Contract # 7200AA18F00013**

Dear Sir/Madam:

Creative Associates International, Inc. is requesting a quotation for goods/services referenced below. All quotations are due by the dates and times stated above. Any quotation received after the required time and date specified for receipt shall be considered late and non-responsive. **Late quotations will not be evaluated**.

This RFQ consists of:

- Cover letter
- Attachment A - **SPECIFICATIONS/REQUIREMENTS:**
- Attachment B – **TERMS AND CONDITIONS**

Creative encourages your company/organization to indicate its interest in this procurement by submitting a quotation according to the instructions in Attachment A. Creative will make an award to the responsible Vendors submitting an offer which provides best value to the project.

To be considered, vendors should submit a complete quotation no later than the closing date and time indicated above. Vendors should ensure that the quotation is well-written in English, easy to read, follows the instructions provided, and contains only requested information.

Questions:
Any questions should be submitted in writing and emailed to vendors@neri-nigeria.com on or before **23 JUN 2020**. No questions will be entertained if they are received by means other than the specified email address, and any communications to alternate e-mail addresses will result in the disqualification of the bidder. The solicitation number (listed above) should be stated in the subject line. Answers will be compiled and distributed on **25 JUN 2020**.

Submission:
Quotations must be submitted via email to bids@neri-nigeria.com with the subject line, and the Creative RFQ number.

Sincerely,
Creative Associates International

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ATTACHMENT A: SPECIFICATIONS/REQUIREMENTS:

A. RFQ Instructions:

1. Past Performance: Vendors are required to submit the contact information of three references. This should include the name, company, relationship to the vendors, email address, and/or phone number for each reference. Additionally, the vendor is required to include details of three business references.
2. Creative reserves the right to visit the place of business of a prospective vendor to verify that it is a legal business entity and has the necessary organizational and management competence to fulfill the necessary responsibilities.
3. Evidence of Vendor's registration with Nigeria Corporate Affairs Commission (CAC)– Complete document required. Vendors are required to provide the complete CAC documents.
4. Provide the Tax Identification number in accordance with Nigerian regulations
5. Statement of pricing validity
6. Please see the Technical Specification in excel spreadsheet in a separate attachment

B. EVALUATION CRITERIA: BEST VALUE

Creative will consider the most valuable offer by evaluating and comparing other factors in addition to price. Only quotations that meet the requirements above will be considered for evaluation. Please note that if there are significant deficiencies regarding responsiveness to the requirements of this RFQ, an offer may be deemed "non-responsive" and thereby disqualified from consideration. Creative reserves the right to waive immaterial deficiencies at its discretion. Therefore, the quotation should contain the best value from both a technical and price perspective. Creative will select the vendor whose quotation represents the best overall value to Creative in terms of the selection criteria specified below. Vendors who do not follow the instructions in this RFQ may be disqualified from consideration.

To ensure that best value is obtained the following would be considered.

- Evidence of Vendor's registration with CAC and Tax Identification number
- Acceptable Quotation Validity Period – minimum 90 days
- Availability of items
- Delivery within specified time
- Acceptable warranty period
- Company Proposal and Cost Proposal should be sent on separate attachments.

Requirement	Points Available
The vendor's responsiveness and compliance with the RFQ requirements and conditions.	20 Points
The vendor's ability, capacity, and skill to fully and satisfactorily provide the services and/or items required in this RFQ	20 Points
The quality of vendor's past performance in comparable and/or similar projects.	20 Points
Assessment of the overall price. Creative review of the cost proposal and shall determine if the overall proposed costs are realistic and reasonable.	40 Points

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NLCB172 Scope of Work Supply and Installation of Solar Powered Flood Light in Dikwa Community Borno State

Summary:

The activity is to achieve the supply and installation with full functionality of Twenty (20) units of solar powered flood lights at designated areas within Dikwa community of Dikwa LGA, Borno State. Reference should be made to the Specifications note in addition to this scope of work and strictly adhered to and seek supervising Engineer's instruction where there is need for clarity. The scope of work for the activity are as itemized below;

NLCB TEAM

- NLCB Team Make liaison with community, security forces and local authority on the commencement of the activity.
- NLCB Team organizes a kickoff meeting with the vendor, Community representatives, Local authority representatives and probably the Military.
- Set up a Project Implementation Committee (PIC) to oversee activity, address concerns and manage stakeholders' interests.

VENDOR

- Supply of two (2) units of 150W monocrystalline solar panels as per specification.
- Supply of 8 inches diameter galvanized iron poles of 10 meters high attached with a projected arm, battery box and metal rail for solar panel as per specification.
- Supply of two (2) units 150Ah batteries and cables as per specification
- Supply of LED lighting luminaires, charge controllers and solar inverters as per specification.
- Excavation of pits of 800mm length x 800mm width x 900mm depth for construction of concrete bases. (See Foundation Drawing)
- Fix the base plate horizontally levelled with the four (32mm) hold-down HT bolts and nuts in position into the excavated pit. (See Foundation Drawing)
- Cast in-situ plain concrete base into the excavated pit with 800mm x 800mm x 1000mm depth, having the finished face 100mm above the natural ground.
- Erect the pole of specified height in position over the concrete base and secure in place by tightening the nuts firmly.
- Ensure the solar panel rail at the top of the pole is tilted at an angle of about 15^0 facing the South direction.
- Fix the specified solar panels firmly into the metal rail provided at the top of the pole.
- Fix the specified battery in the provided box on the pole.
- Fix the specified solar inverter and charge controller according to manufacturer's instruction.
- Fix the specified aluminum LED lighting luminaire on the projected arm of the pole.
- Ensure the pole with the attached metal rail, battery box and projected arm are coated with silver paint.
- Ensure the electrical connections are done appropriately and with safety measures.
- Test all the solar powered Flood lights to ensure proper functionality.
- Train nominated community members on the maintenance and operation of the solar systems.
- Submit final report to the NERI Team.
- Commissioning of the project and handover to the community.

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NOTE: This scope of work must be used in conjunction with the specifications for solar flood lights and foundation base drawing provided (check attachment).

PROJECT LOCATION AND NUMBER OF STREET LIGHTS

S/N	LOCATION	QTY	REMARKS
1	Some distance away before the first Check Point on the road leading to Kanamma	7	The 7 stands will be made to face both sides of the road in an alternating pattern at 20m apart
2	Some distance away after the second Check Point on the road leading to Kanamma	7	The 7 stands will be made to face both sides of the road in an alternating pattern at 20m apart
3	Niger Republic boarder (along Maine Soroa road, 1.5Km to Niger Republic)	6	3 stands on the right along the trench facing towards Niger, 4 stands on the left along the trench facing towards Niger at 20m apart
4	The trenches along the small rivers at Fili Eidi	15	The 15 stands will be scattered from along the trench towards the end of the river facing the river at 25m apart
5	Abbatior area (behind the hospital quarters)	6	The 6 stands will be 25m apart along the river facing the river
6	The sharp bend from the main road into the town leading to the Niger Republic boarder	3	The 3 stands will be made to face both sides of the road in an alternating pattern at 25m apart
	TOTAL STANDS	**44**	

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TECHINCAL SPECIFICATIONS FOR NERI SOLAR FLOOD LIGHT

General Solar Flood Light Design Requirement:

The following Suppliers are suggested to be among the potential local suppliers of the materials stated blow:

a. Solar Photovoltaic (PV) Module (the Solar Power System)
Type of solar PV module – Monocrystalline silicon solar module designed to withstand rough environment (with a Maxpower Voltage not less than 18Volts). The PV module should have a certificate of testing conforming to IEC 61215 Edition II / BIS 14286 or IEC 61646 for crystalline PV modules. The certificate should be from an NABL or IECQ accredited Laboratory
Number of solar module – Two units
Note: The power output of the module under STC should be a minimum of 150Wp.
The coversion efficiency - should be 14% and above
Total solar array wattage – 19V/150Watts
Mounting of solar array to the pole – The PV module is fixed firmly on top of the pole with suitable tilt and inclination to the horizontal between 0 and 15 degrees so to receive maximum incident solar radiation (sunlight) through the day.
Norminal Operating Cell Temperature (NOCT) – (45°c ± 2°c)

b. Solar Light Fixture (Luminaire/ LED streetlight)
Type of light fixture – Luminaire with transparent acrylic cover housing an energy efficient LED streetlamp fitted with gasket and accessories for weather and insect proof operation.
Lumens per watt provided by the fixture – 6800lumens minimum, + 5% for 80Watts White LED lamp (Option 1).
Lumens per watt provided by the fixture – 8500lumens + 5% for 100Watts White LED lamp (Option 2).
Extra Lumens per watt to be provided that can be substituted for a standard flood light for ease of maintenance by the community members or leadership – 4,500lumens + 5% for 50Watts 12-24Volts LED Floodlight equivalent 150watts Halogen Floodlight
Type of lamping – 80 to 100Watts 12/24VDC White LED Lamp
Light distribution pattern – Symmetric/ Circular light spot
Light level requirements

- Specify area to be illuminated – 20m to the left and right sides of the pole, and 15m to the front of the pole

Fixture bracket arm – Pole mounting with mounting bracket (the lamp arm should be 1.5/2-inch pipe fixed on the 4-inch pole at an angle of 90^0)
Fixture mounting height – 8.5m

c. Low Maintenance Battery
Type of battery – 2 units of Deep cycle battery of 12V/150Ah capacity that is affordable and easy to change.
Total amp hours of battery - The battery will have a minimum rating of 12V/150Ah (at C/10 discharge rate) with 75 % of the rated capacity of the battery should be between fully charged and load cut off conditions.
Autonomous battery storage to ensure reliable year-round system performance - 5 nights of battery storage.
Note: 5 nights of battery storage should be a minimum. In certain parts of the world, more than 5 nights of autonomous battery storage needs to be specified to help ensure ultra-reliable year-round system performance due to depth of discharge changes in climate conditions.
Number of cycles at 80% discharge - 500
Number of cycles at 30% discharge – 1200
Yield of the battery - 0.92

Battery box salient characteristics and battery box mount such as NEMA rating, construction materials, etc. – The battery box should be an IP65/68 enclosure mounted on the 4inches galvanized iron pipe. The battery box made up of galvanized sheet, must be vented (that is with vents) and acid proof metallic box for outdoor use should be provided for housing the battery with a provision of lock and Key.
Position of the battery box – 8.5m above the natural ground level

d. Solar-powered Street Light Pole
Type of pole - The pole should be made of 10m height above the natural ground level 8" lower end, 3" upper end Hexagonal Galvanized Pipe with 600mm x 600mm x 20mm base plate with 20mm gusset, after grouting and final installation. The pole should be heavy duty and suitable for rural applications.
The pole should have the provision to hold the solar PV module and the weather proof LED lamp housing. The pole should be acid proof and painted with minimum of 3-layers aluminum paint coating of the pole to include the battery box, solar module bracket, projected mounted bracket for the LED lamp and every other metal part as required.
Support of the pole – A foundation of concrete footing of 1500mm x 900mm x 1500mm base concrete with 60mm hold down foundation bolts to be the anchor base for the pole should be provided.
600mm x 600mm x 20mm base plate attached to the bottom of the galvanized iron pole with gusset to reinforce the joint.
4 units of 60mm diameter black bolt and nut attached to one end of a 1-meter-long high yield reinforcing bar each and the other end bent to a hook of 100mm to serve as Foundation bolts.
Light pole must support the total weight and effective projected area (EPA) of the specified solar power street lighting system in AASHTO wind loads for the particular area which is the Northeast, Nigeria

e. Auto-charge, Water-proof System Controller
Type/description of system controller – A unit of 30Amps - 12V/24V charge controller with varying voltage
The system controller should provide adequate protection incorporated under no load conditions e.g. when the lamp is removed, and the system is switched ON.
The system should have protection against battery overcharge and deep discharge conditions.
Fuses should be provided to protect against short circuit conditions.
Protection for reverse flow of current through the Solar PV module(s) should be provided.
Electronics should have temperature compensation for proper charging of the battery throughout the year.
Salient characteristics of light fixture - The system should be provided with 2 LED indicators: a green light to indicate charging in progress and a red LED to indicate deep discharge condition of the battery.
Auto Programmable - Yes
Automatic Disconnect – Yes
Battery Reverse Polarity Protection – Yes
Battery discharge protection – Yes
Overcharge protection – Yes
PV Module reverse polarity protection – Yes
Load Short circuit protection – Yes
Load open circuit protection – Yes
Operating temperature – From -35°c to + 60°c
Operating temperature – From -35°c to + 85°c
Detailed description of nightly system operation - This is critically important to ensure the solar lighting system meets all expected needs since with adaptive lighting being installed on most systems, dusk to dawn is not always enough information.
Additional system controller specification required may be:

- Dusk to dawn with no adaptive lighting features – Dusk (7pm) at full intensity for the entire night and off at Dawn (6am).
  OR
- Dusk to dawn with adaptive lighting features - Dusk + 6 hours at full 36Watt fixture intensity; dimming to 20Watt intensity; returning to full 36Watt intensity 1hour pre-dawn.

f. Connecting wire
Description – 4 mm DC silver plated DC cable should be used to connect all Solar Balance of System (BoS) to minimize losses and cable rusting/cutting after a period of time.

g. Other Features

- There will be a Name Plate on the system, which will give: (a) Name of the Manufacturer or Distinctive Logo. (b) Serial Number.
- Components and parts used in the solar street lighting systems should conform to the latest BIS specifications, wherever such specifications are available and applicable.
- The PV module(s) will be warranted for a minimum period of 25 years from the date of supply and the street lighting system (including the battery) will be warranted for a period of two years from the date of supply.
- PV modules used in Solar Street Lighting System must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Twelve (12) years and 80% at the end of Twenty-five (25) years. The Warranty Card to be supplied with the system must contain the details of the system. The manufacturers can also provide additional information about the system and conditions of warranty as necessary.
- Necessary lengths of wires/cables and fuses should be provided.
- An Operation, Instruction and Maintenance Manual, in English and the local language, should be provided with the Solar Street Lighting System. The following minimum details must be provided in the Manual: Basic principles of Photovoltaics; a small write-up (with a block diagram) on Solar Street Lighting System - its components, PV module, battery, electronics and luminaire and expected performance; about charging and significance of indicators; clear instructions about erection of pole and mounting of PV module(s) and lamp housing assembly on the pole.

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ATTACHMENT B: TERMS AND CONDITIONS

1. **TIME OF DELIVERY:** Delivery dates to project sites are indicated in this RFQ. Upon failure by the Vendor to make delivery at the time specified, or any extension therefore, Creative may cancel the contract with respect to any or all deliveries which have not yet been made, except when such failure is due to unforeseeable causes beyond the control and without the fault or negligence of Vendor, including, but without limitations, an Act of God or of the public enemy, acts of governments, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, but not including delays caused by the Vendor, provided that the Vendor, within three days of the beginning of such a delay, notify Creative in writing of the cause of such delay. Upon receipt of written notification of a delay from the Vendor, Creative will prepare a modification to the Purchase Order to be duly signed by both parties.
2. **THIRD PARTY PAYMENT:** Creative will issue payment to the entity identified in the Purchase Order. Creative will not issue any third-party payments. As such, the entity must have a valid bank account.
3. **RISK - PRIOR TO DELIVERY:** The articles ordered hereby shall remain at Vendor's risk until delivery to Creative or the project site designated in this RFQ, and after any notice of rejection of articles, such rejected articles shall be at Vendor's risk. When final inspection is at place of origin, but delivery by Vendor is at another place, Vendor's risk shall continue until articles are delivered to their final destination.
4. **EXTRA CHARGES:** No charges for extras will be paid to Vendor unless such extras have been ordered in writing by Creative and price stated in such order.
5. **INCREASE OR DECREASE:** Unless otherwise specified, no variation in the quantities or qualities ordered will be accepted as compliance with this order.
6. **CASH IN LIEU OF MATERIAL:** Under no circumstances is the Vendor to make cash payments in lieu of materials. Such practice will result in the cancellation of any Creative financial responsibility pertaining to this award.
7. **ANTI-CORRUPTION:**
    a. Commission payments to Creative Staff are not to be made or authorized.
    b. No gift, gratuity or remuneration of any kind shall be made to any individual or organization with whom Creative has an official or business relationship, as a result of this agreement.
    c. Arrangements are not to be made for undisclosed rebates to either Creative or any of its employees or agents.
8. **CERTIFICATION REGARDING TERRORISM:** As part of the proposals submission, Vendor hereby certifies that it has not provided and will not provide material support or resources to any individual or organization that it knows, or has reason to know, is an individual or organization that advocates, plans, sponsors, engages in, or has engaged in an act of terrorism.
9. **FINAL INVOICES:** Vendor is required to submit the final invoice, appropriately marked as such, under this order not later than ninety (90) calendar days after completion of the work, or any longer period as may be mutually agreed between the parties. Any invoices received after that date will not be paid by Creative.
10. **WARRANTY:** Vendor shall, as soon as reasonably practicable, repair or replace any items which are or become defective during the period of 12 months from the date of supply where such defects occur under proper usage and are due to faulty design, erroneous use data provided by the or inadequate or faulty materials or workmanship or any other breach of Vendor's warranties, express or implied. Repairs and replacement parts shall themselves be subject to the forgoing obligations for a period of 12 months from the date of repair or replacement.

11. **TAXES:** Vendor must pay any taxes defined for these purposes as value-added taxes and custom duties assessed by the host government. It does not include sales tax or
12. employment taxes required by local law which must be separately identified and reported to Creative through the Vendor's invoice.
    a. The Vendor is liable for payment of all applicable taxes associated with revenues (profit), and other such taxes, fees, or dues for which the Vendor is normally responsible as a result of operating its business.
    b. Vendor shall be responsible for providing a tax identification number, along with bank account details, company name, company or corporate registration number, company address, contact number(s).
13. **OFAC Sanctions**: No commodities made in—or containing a component made in—OFAC Sanctioned countries may be supplied. Here's the link of OFAC sanctioned countries https://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/default.aspx
14. **INTERNATIONAL SHIPPING**: Any international air or ocean transportation or shipping carried out under any award resulting from this RFQ must take place on U.S.-flag carriers/vessels.

Additional terms and conditions for the Purchase Order shall be provided upon notice of award.