REQUEST FOR QUOTATION (RFQ)
(Goods)

<table>
<thead>
<tr>
<th>DESCRIPTION: Supply and Installation of Libyan-Korean Center / 30KW Hybrid Solar Power System in Tripoli, Libya.</th>
<th>DATE: January 18, 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>REFERENCE: RFQ/LBY/SFL/2021/002</td>
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</table>

We kindly request you to submit your quotation for the following works, as detailed in Annex 1 of this RFQ. Quotations may be submitted on or before 31 January 2021 at 14:00 hours Tunis, Tunisia time, ref. www.greenwichmeantime.com and via email at tenders.ly@undp.org.

An organized site visit, subject to government movement restrictions, is arranged on 25 January 2021, at 11:00 hours, Libya time, at below mentioned place:

Location: Libyan-Korean Center, Tripoli, Libya.

Focal Person(s):
- Eng. Saeid ZEKRY Project Coordinator Cell: +218 91-9324563
- Eng Ashraf Arefe Site visit Engineer Cell: +218 91-7118100

Quotations submitted by email must be limited to a maximum of 10 MB, 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 works:

<table>
<thead>
<tr>
<th>Place of contract</th>
<th>Libyan-Korean Center, Tripoli, Libya.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred Currency of Quotation</td>
<td>United States Dollars (US $)</td>
</tr>
<tr>
<td>Site visit</td>
<td>An organized site visit, subject to government movement restrictions, is arranged on 25 January 2021, at 11:00 hours, Libya time, at below mentioned place:</td>
</tr>
<tr>
<td></td>
<td>Libyan-Korean Center, Tripoli, Libya.</td>
</tr>
</tbody>
</table>
| Focal Person(s): | Eng. Saeid ZEKRY Project Coordinator Cell: +218 91-9324563
<p>| | Eng Ashraf Arefe Site visit Engineer Cell: +218 91-7118100 |
| Period of Validity of Quotes | 120 days - commencing on the submission date |
| | In exceptional circumstances, UNDP may request the Offeror to extend the validity of the Quotation beyond what has been initially indicated in this RFQ. The Offeror shall then confirm the extension in writing, without any modification whatsoever on the Quotation. |
| Advanced Payment upon signing of contract | Except when the interests of UNDP so require, it is the UNDP’s preference to make no advanced payment(s) on contracts (i.e., payments without having received any outputs). In the event that the Bidder requires an advanced payment upon contract signature, and if such request is duly accepted by UNDP, and the said advanced payment exceeds 20% of the total Bid price or exceed the amount of USD 30,000.00 UNDP shall require the Bidder to submit a Bank Guarantee in the same amount as the advanced payment. |</p>
<table>
<thead>
<tr>
<th><strong>Liquidated Damages</strong></th>
<th>Will be imposed under the following conditions: Percentage of contract price per day of delay up to maximum duration of 01 calendar month: 0.5% per day Max. limit of delay: 10%</th>
</tr>
</thead>
</table>
| **Performance Security** | Required: In lieu of Performance security, contract will be subject to a deduction of 10% (TEN) percent of the amount accepted for the payment as security deposit from all progressive payments.  
This amount will be kept as Retention to cover the Defect Liability period* of 6 months after Contract completion date. Retention amount could be replaced with the Bank Guarantee issued by reputable International Bank.  
a. The proceeds of the Performance Security shall be payable to UNDP as a compensation for any loss resulting from the Contractor’s failure to complete its obligations under the contract.  
b. Upon successful completion of Defect Liability Period of 6 months and upon issuance of completion certificate, UNDP will release retention money to the Bidder.  
* Retention Defect Liability is instrument to cover any defects that are discovered or raised in the normal course of usage within 6 months after the works/goods have been put into the service |
| **Quotation shall include the following:** | a. General Information and Experience: Include a description of the firm/company’s history and experience to demonstrate that the firm/company has the capacity to undertake the works including the list and value of similar projects performed in past, plus client’s contact details who may be contacted for further information on those contracts.  
b. Business Licenses: Valid business license in general construction works. Interested bidders must have appropriate permission/registration from relevant Government body to operate in Libya (copy must be provided with the quote). The evidence (documents) must be translated into English language.  
c. Copies of Contracts/POs and Completion Certificate of two similar contracts as prime contractor.  
d. List of proposed personnel with CV’s showing relevant experience and qualification.  
e. Project Schedule/timetable: An outline of the firm/company’s proposed timeline reflecting start and completion dates of works including  
f. Signed/stamped Annex 2 & 2A (FORM FOR SUBMITTING SUPPLIER’S QUOTATION – Annex 2) and (BILL OF QUANTITIES – Annex 2A)  
g. Acceptance of General Terms & Conditions |
<p>| <strong>Evaluation method to be used in selecting the most responsive Bid</strong> | Lowest priced offer of technically qualified/responsive quotation |</p>
<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
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<tbody>
<tr>
<td>1. Minimum no. of years of experience in similar works: 3 (three) years</td>
<td></td>
</tr>
<tr>
<td>2. The company should have completed at least two similar in nature contracts with the contract value of USD 40,000.00 for each contract/PO. (Copies of contracts/POs and completion certificates (handover of work) to be provided. The supporting documents advised to be translated into English language.</td>
<td></td>
</tr>
<tr>
<td>3. Qualification and suitability of the key personnel proposed for the contract including their previous experience with same type of assignment:</td>
<td></td>
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<tr>
<td>a. Electrical Engineer/Project Manager - shall have a University Degree in Electrical engineering and minimum 3 years of work experience;</td>
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<tr>
<td>b. Electrician - shall have a diploma and minimum of 3 years of work experience;</td>
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<tr>
<td>4. Submission of Implementation Timeline/Meeting the works completion deadline of 60 days (2 calendar months).</td>
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<tr>
<td>5. Acceptance of General Terms &amp; Conditions for goods</td>
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</table>

| Maximum Expected duration of contract | The successful vendor shall complete the works within **60 days (2 calendar months)**. from the award of contract. Offeror’s technical approach shall fully comply with the specifications, drawings and BOQ. |

<table>
<thead>
<tr>
<th>All documentations, including catalogs, instructions and operating manuals, shall be in this language</th>
<th><strong>English</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Documents provided in other languages must be translated into English</strong></td>
</tr>
</tbody>
</table>

| Deadline for the Submission of Quotation | On or before **31 January 2021** at 14:00 hours Tunis, Tunisia time, ref. [www.greenwichmeantime.com](http://www.greenwichmeantime.com) |

<table>
<thead>
<tr>
<th>Partial Quotes</th>
<th>Not permitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDP will award to</td>
<td>One and only one Vendor</td>
</tr>
<tr>
<td>Type of Contract to be Signed</td>
<td>Contract for works</td>
</tr>
</tbody>
</table>

| Conditions for Release of Payment | Submission of invoice and acceptance/certification by UNDP Engineer |

<table>
<thead>
<tr>
<th>Annexes to this RFQ</th>
<th>✚ Scope of Works (Annex 1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>✚ Form for Submission of Quotation including the BOQ (Annex 2 &amp; 2 A)</td>
</tr>
<tr>
<td></td>
<td>✚ General Terms and Conditions for goods (Annex 3).</td>
</tr>
<tr>
<td></td>
<td>Non-acceptance of the terms of the General Terms and Conditions (GTC) shall be grounds for disqualification from this procurement process.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Request for clarification</th>
<th>Offerors requesting clarification of any of the items, technical requirements or conditions stipulated in this RFQ shall communicate in writing with UNDP office to <a href="mailto:procurement.ly@undp.org">procurement.ly@undp.org</a> stating the RFQ reference number: RFQ/LBY/SFL/2021/002</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All the enquiries should be made five days prior to deadline. 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 offerors.</td>
</tr>
</tbody>
</table>
UNDP has zero tolerance for fraud and corruption, meaning that UNDP vendors are not to engage in fraud or corruption. Vendors engaged in fraud and corruption will be subject to sanctions. Fraud includes the submission of fraudulent or misrepresented documents, such as bid securities and financial statements.

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.

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 Contract/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 herein attached as Annex 4.

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:

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:

Thank you and we look forward to receiving your quotation.

Yours sincerely,

Shohrukh Abdulloev
Procurement Specialist
HoSC a.i.
UNDP Libya
Scope of work

Supply and installation of Libyan-Korean Center / 30KW Hybrid Solar Power System in Tripoli, Libya

Project Location: 32 52’11.6” N 13 12’ 52.8” E - Ras Hassan St, Tripoli Libya

The system is designed to cover the Essential loads in Libyan-Korean Centre PPE Department and the system will be grid interactive connected with battery backup system, which will allow many power sources options.

The system will import from the grid when loads are being more than the generated from PV and supply surplus electricity to the batteries when PV generates more than the loads, the batteries can be charged from Grid if PV output is not enough for loads and batteries.

The Contractor shall perform a detailed engineering site survey to acquire all necessary information for preparation of design documentation and discuss technical issues with representatives of all relevant stakeholders.

Contractor shall submit shop drawings for all architectural, civil, electrical and a complete photovoltaic solar system works, including a single line diagram showing all the components of the PV system, DC and AC distribution boards, PV Arrays lay out and battery backup systems connections and cables, wires cross section for all the system to be approved by the Engineer before executing the work.

Contractor shall submit the catalogues of each component showing the requested specifications stated at the bill of quantity.

The contractor shall submit the Manufacture testing certificate, country of origin, certified characteristics, test performance curves, spare parts regular (as recommended by manufacturer, maintenance manuals and manufacturer’s warranty for each components of the system.

As-built drawings and writing setting parameters shall be submitted after handing over the work.

Upon completion of the installation, the contractor shall organize an on-site training program for operation and maintenance purpose involving nominated employer’s staff. Such a program shall be carried out during the commissioning phase.

The cost of the training shall be deemed to have been included in the tendered rates.

The price includes all builders’ works, making good and reinstatement including necessary materials and workmanship as well as removal of unwanted materials to dump sites approved by the engineer to complete the job successfully.

All the electrical works shall be executed according to IEEE Standards, specifications and supervisor Engineer instructions.

The contractor shall arrange for all required safety measures, signs, and protections around the sites.
FORM FOR SUBMITTING SUPPLIER’S QUOTATION

We, the undersigned, hereby accept in full the **UNDP General Terms and Conditions**, and hereby offer to perform the works as per the summary provided below and attached priced BoQ in conformity with the specification and requirements of UNDP as per RFQ Reference No. **RFQ/LBY/SFL/2021/002 - Supply and Installation of Libyan-Korean Center / 30KW Hybrid Solar Power System in Tripoli, Libya**.

<table>
<thead>
<tr>
<th>Description:</th>
<th>Total (US$)</th>
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</thead>
<tbody>
<tr>
<td>Total work for <strong>Supply and Installation of Libyan-Korean Center / 30KW Hybrid Solar Power System in Tripoli, Libya</strong>. (as per the priced BOQ – Annex 2A)</td>
<td></td>
</tr>
<tr>
<td>Grand total in USD</td>
<td></td>
</tr>
</tbody>
</table>

Currency: **United States Dollars**

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

**We declare that the firm/company or individuals employed by the firm/company are not included in the UN Security Council 1267/1989 list, UN Procurement Division List or other UN Ineligibility List.**

Company Name: __________________________________________________________

Contact Person: __________________________________________________________

Position: _________________________________________________________________

Email: ___________________________________________________________________

Mobile Number: __________________________________________________________

Address: __________________________________________________________________________

Authorised Signature & Stamp: _______________________ Date:_________________________
**Description:** Supply and Installation of Libyan-Korean Center / 30KW Hybrid Solar Power System in Tripoli, Libya.

**Reference Number:** RFQ/LBY/SFL/2021/002

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Unit</th>
<th>Qty</th>
<th>Rate in USD</th>
<th>Amount in USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar Power System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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**General**

- The system is designed to cover the Essential loads in Libyan-Korean center PPE Department.
- The system will be grid interactive connected with battery backup system, which will allow many power sources options. The system will import from the grid when loads are being more than the generated from PV and supply surplus electricity to the batteries when PV generates more than the loads, the batteries can be charged from Grid if PV output is not enough for loads and batteries.
- The Contractor shall perform a detailed engineering site survey to acquire all necessary information for preparation of design documentation and discuss technical issues with representatives of all relevant stakeholders.
- Contractor shall submit shop drawings for all architectural, civil, electrical and a complete photovoltaic solar system works, including a single line diagram showing all the components of the PV system, DC and AC distribution boards, PV Arrays lay out and battery backup systems connections and cables, wires cross section for all the system to be approved by the Engineer before executing the work.
- Contractor shall submit the catalogs of each component showing the requested specifications stated at the bill of quantity.
- The contractor shall submit the Manufacture testing certificate, country of origin, certified characteristics, test performance curves, spare parts regular (as recommended by manufacturer, maintenance manuals and manufacturers warranty for each components of the system.
- As-built drawings and writing setting parameters shall be submitted after handing over the work.
- Upon completion of the installation, the contractor shall organize an on site training program for operation and maintenance purpose involving nominated employer’s staff. Such a program shall be carried out during the commissioning phase. The cost of the training shall be deemed to have been included in the tendered rates.
- The price includes all builders’ works, making good and reinstatement including necessary materials and workmanship as well as removal of unwanted materials to dump sites approved by the engineer to complete the job successfully.
- All the electrical works shall be executed according to IEEE Standards, specifications and supervisor Engineer instructions.
- The contractor shall arrange for all required safety measures, signs, and protections around the sites.

**Item Description**

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</tr>
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</table>

**PV Modules – 30 Kwp**

Supply, install, connect and operate Mono Crystalline or Polycrystalline Photovoltaic Solar Modules with all material needed to have complete job ready for installing high quality PV modules with total arrays capacity to achieve 30 KWp. The item includes supply, install & connect the following:

- Water proof PV junction boxes IP65 for each array including DC Fuses, DC LTL, bus bars, terminals, ducts or trays, supports & labels suitable to the PV arrays loads.
- Solar DC cables appropriately sized to connect the PV solar cells together and to the J.B and from J.B to the inverter directly to have a complete operational circuit with all conduits, clamps, trays and cable end terminations which shall be DC plug and socket connectors. The DC cables must be sized in accordance with the installation requirements applicable on site, the allowable voltage drop for DC cables between PV Arrays and inverter less than 1%.
- The contractor has to obtain 30 kwp from PV system as minimum. In
In case the proposed PV modules results in extra kW than this is deemed to be accounted for the proposed ratio. Contract will be pay only 30kwp.

| A2 | **Inverters - 30 KW** | Set | 1 |
| **Supply, install, connect and operate DC/AC Hybrid type 1-phase inverter, Rated DC Voltage: 48V, Grid Input Voltage: 220VAC, Input frequency: 50HZ, Output Voltage: 220VAC, Output Frequency: 50Hz, Pure Sine Wav. with data communication unit with Ethernet connection, (monitoring and controlling unit) . (Type is SMA or equivalent). The inverter with must be suited to any PV module configuration, and depending on the system design and installation proposed and for the future extended also. The DC max power input rating should be equal or more than 30 KW of the PV modules capacity at standard test condition. The inverter unit shall be suitable for indoor and outdoor installations with IP65. The inverter AC nominal power output rating must be equal or greater than 30 KW compatible with the AC loads design. Protections: reverse polarity, short-circuit, overvoltage, undervoltage, over-discharge, antihunter. Include (MPPT Charge controller), Remote Control Unit (RC Unit) compatible with inverter rated power 30 Kw with all necessary (automatic transfer control box), interface modules and connections for masters & slaves, electrical cables and data communication unit with Ethernet connection, connectable in parallel and modularly extendable. The Battery Inverter must include the following concepts such as (Ac and DC coupling, High efficiency, intelligent battery management for maximum battery life, charge level calculation, extreme overload capability, and battery temperature sensing and battery current measurements). And connect all DC cables appropriately sized in accordance with the installation requirements and to connect the inverters with PV system designed with all conduits, clamps, trays and cable terminations end which shall be DC plug and socket connectors to have a complete job, the allowable voltage drop for DC cables between inverters and PV system not less than 1%.

| A3 | **Battery Bank** | No | 40 |
| Supply, install, connect and operate 12V, 200AH gel Battery, 2.4 KWh. The batteries must provide high-quality and achieving superior performance, the manufacturing date must be new and not more than 6 months, suitable for every type of applications especially for solar renewable energy, designed Service Life 10 years with low internal resistance, designed to be deeply discharged. The Battery should provide benefits of being maintenance free, case flame retardant & non-hazardous. The price Includes supply, install & connect Battery temp. sensor (BTS) and the following: All necessary DC cables between the batteries together and to the battery fuse box to have a complete operational circuit with all bus bars, conduits, clamps, stainless steel bolts, washers and cable end terminations and all needed materials to complete the job. All DC cables must be sized in accordance with the installation requirements applicable on site, the allowable voltage drop must be less than 1%. Battery Banks rack from the same manufacturer of the batteries with dividers and all needed accessories to finish the job. The rack must be enough to carry all the weight of the required batteries for the system. |
| A4 | **PV Mounting structure**<br>Supply and install Module mounting structure from hot galvanized steel Angles foundation suitable to the dimension of selected PV modules and PV numbers, the mounting provides a fixed inclination of the modules 26-30 degree with vertical supports, plates, screws and casting concrete foundations B250 (0.4*0.4*0.4) m³ for each leg, The PV structure must covered with approved type of Epoxy painting with approved color with painting layers approved types with all testing, the structure includes bracing and double hot galvanized angles for dividers. The mounting structures and the foundations must be designed structurally to be suitable to withstand all static loads (weight of modules, wind loads etc.) that might occur according to the Site conditions. The mounting structure components are bonded together to guaranty potential equalization. All works and materials must be according to drawings, specifications and supervisor instructions and approval. | L.S | 1 |
| A5 | **Earthing System For AC Side**<br>Supply, install, connect and operate complete independent earthing system for PV solar system, must be separated of the main earthing system to obtain 2 ohm max resistance. The item includes (all required copper electrodes 15mm² driven into ground to achieve the resistance low than 2 ohm, manholes with iron cover, earth joints, clamps, ducts, conduits and 25 mm² flexible earthing copper wires and cables from the AC system components to the electrode to complete the system as specifications and supervisor engineer instruction's and approval. | No | 1 |
| A6 | **Earthing for PV Structure**<br>Supply, install, connect and operate complete independent earthing system for PV solar system, must be separated of the main earthing system to obtain 2 ohm max resistance. The item includes (all required copper electrodes 15mm² driven into ground to achieve the resistance lower than 2 ohm, manholes with iron cover, earth joints, clamps, ducts, conduits and 25 mm² flexible earthing copper wires and cables from the PV system components to the electrode to complete the system as specifications and supervisor engineer instruction's and approval. | L.S | 1 |
| A7 | Supply, testing, commission, and maintenance all related of the electrical works in the site work. The price shall include supplying and installation of all needed material and works and provide all missing parts like electrical boards, missing cables, circuit breakers (DC/AC), junction box, cable tray, PVC conduits, fix all the system defects to ensure safe operation, (unless paid separately in the BoQ items) all in accordance with the requirement of the relevant Standards and the engineer's instructions. | L.S | 1 |

**Total works carried to summary**
Annex 3

UNDP General Conditions of Contract for goods

Attached separately