

DATE: 04/09/2023

REQUEST FOR PROPOSAL: HCR/IRQ/DHK/2023/RFP-055
FOR
INSTALLATION OF SOLAR ENERGY SYSTEM FOR UNHCR REGISTRATION CENTERS,
DERABON, DOMIZ 1, AND GAWILAN, DUHOK GOVERNORATE, IRAQ FOR UNHCR-
OFFICE ERBIL OPERATIONS (3 LOTS)
CLOSING DATE AND TIME: - 23:59 HRS IRAQ Local Time on 25/09/2023

INTRODUCTION TO UNHCR

The Office of the United Nations High Commissioner for Refugees was established on December 14, 1950, by the United Nations General Assembly. The agency is mandated to lead and co-ordinate international action to protect refugees and resolve refugee problems worldwide. Its primary purpose is to safeguard the rights and well-being of refugees. It also has a mandate to help stateless people.

In more than five decades, the agency has helped tens of millions of people restart their lives. Today, a staff of some 6,600 people in more than 110 countries continues to help about 60 million persons. To help and protect some of the world's most vulnerable people in so many places and types of environments, UNHCR must purchase goods and services worldwide. For further information on UNHCR, its mandate and operations please see <http://www.unhcr.org>.

1. REQUIREMENTS

The Office of the United Nations High Commissioner for Refugees (UNHCR), Iraq Operations, invites qualified construction firms to make a firm offer for **Installation of Solar Energy System for UNHCR Registration Centers (3 Lots), Derabon, Domiz 1, Gawilan, Duhok Governorate, Iraq, for UNHCR Iraq Operation.**

IMPORTANT: Bill of Quantities (BOQs) and Scope of Work (SOW) are detailed in Annex (A&B) of this document.

2. BIDDING INFORMATION

2.1 RFP DOCUMENTS

The following annexes form integral part of this Request for Proposal.

Annex A: Scope of Work (SOW)

Annex B: Bill of Quantities

Annex C: Design and the Structure (Drawings)

Annex D: Detailed Technical Evaluation Criteria

Annex E: Technical Proposal Form

Annex F: Vendor Registration Form

Annex G: General conditions of Contracts for the provision of Good and Services (July 2018)

Annex H: UNHCR General Conditions of Contracts for Civil works (October 2000)

Annex I: Supplier's Code of conduct

Annex J: e-Tender Box Supplier user manual

Annex K: How to Join Microsoft Teams without account.

Annex L: Financial Offer Form

Annex M: Tentative calendar of activities

IMPORTANT: It is strongly recommended that this Request for Proposal and its annexes be read thoroughly.

2.2 ACKNOWLEDGEMENT

We would appreciate your informing us of the receipt of this RFP by return e-mail to IRQDUTND@unhcr.org, CC: SAADIS@unhcr.org as to:

- Your confirmation of receipt of this RFP
- Whether or not you will be submitting a bid

IMPORTANT: Failure to send the above requested information may result in disqualification of your offer from further evaluation.

2.3 REQUESTS FOR CLARIFICATION

Bidders are required to submit any request for clarification or any question in respect of this RFP by e-mail to IRQDUTND@unhcr.org, CC: SAADIS@unhcr.org. The deadline for receipt of questions is 23:59 HRS IRAQ Local Time on **13/09/2023**. Bidders are requested to keep all questions concise. UNHCR may, at its discretion, copy any reply to a question to all other invited firms.

All the emails sent requesting clarification **MUST** have the following subject otherwise UNHCR reserves the right **NOT TO REPLY**.

EMAIL SUBJECT: HCR/IRQ/DHK/2023/RFP 055 - Query

UNHCR will compile all questions and reply to the questions received as soon as possible by means of publication on the UNGM, UNHCR websites and by email to all bidders participating in the tender competition.

IMPORTANT: Please note that Bid Submissions are **NOT** to be sent to the e-mail address above. Bid Submissions sent directly to the e-mail addresses above will result in disqualification of the offer.

2.3.1 SITE VISIT:

All the participating construction companies/contractors are **required to attend the Mandatory site visits** to inspect the construction site before submitting their offer. The contractors are required to send an email for booking an appointment for the visit to the email address: IRQDUTND@unhcr.org, CC: SADIS@unhcr.org before **10/09/2023**. The dates of the site visit are **11-12/09/2023** (the date and the time of the site visit is fixed no changes can be made to this date and time upon the request of a potential bidder).

1- Site Visit Day1:

Date/Time: **11/09/2023** at 11 am. Venue: UNHCR Derabon Repatriation Center

GPS Coordinates: 37.08543253739791, 42.42802995850464

Date/Time: **11/09/2023** at 1: pm. Venue: UNHCR Domiz 1 Registration Center, Domiz 1 Camp.

GPS Coordinates: 36.786355118710375, 42.88367067078898

2- Site Visit Day2:

Date/Time: **12/09/2023** at 11 am. Venue: UNHCR Gawilan Registration Center, Gawilan Camp.

GPS Coordinate 36.3366321668263, 43.61623944515411

Please Note: UNHCR does not provide means of transport to the site.

2.3.2 PRE-BID CONFERENCE:

UNHCR will organize a supplier pre-bid conference on MS Teams, on **13/09/2023** at 11:00 HRS. A maximum of ONE representative per company is allowed. Name and contact details of the company's representatives must be provided, at least two working days in advance, by e-mail to IRQDUTND@unhcr.org, CC: SAADIS@unhcr.org before **11/09/2023**. Changes in staff need to be shared in advance; otherwise, they will not be able to participate.

Participation to the pre-tender conference shall be at the bidders' own expenses. There will be no reimbursement from UNHCR.

Participation to the pre-tender conference is **STRONGLY RECOMMENDED** given the complexity of the requirements. However, after the supplier conference, a Questions & Answers document will be prepared and posted on UNGM and/or distributed by email to all invited bidders.

IMPORTANT: Please note that Bid Submissions are not to be sent to the e-mail address above.

2.4 YOUR OFFER

IMPORTANT: Cancellation of Solicitation: UNHCR reserves the right to cancel a Solicitation at any stage of the procurement process prior to final notice of award of a contract.

Your offer shall be prepared in English.

Please submit your offer using the Annexes provided. Offers not conforming to the requested formats may be not taken into consideration.

IMPORTANT: Please submit your proposal in accordance with the instructions provided in the "Submission of Bid" section 2.6) of this RFP.

Inclusion of copies of your proposals with any correspondence submitted directly to the attention of the responsible buyer or any other UNHCR staff other than the instructions provided under "Submission of Bid" Section 2.6) of this RFP will result in disqualification of the offer/proposal.

Your offer shall comprise the following sets of documents:

- Technical offer
- Financial offer

2.4.1 Content of the TECHNICAL OFFER

IMPORTANT:

No pricing information should be included in the technical offer. Failure to comply with instructions provided under Section 2.6 SUBMISSION OF PROPOSAL will result in disqualification of your offer/proposal. The technical offer should contain all information required.

The Bill of Quantities for **Installation of Solar Energy System for UNHCR Registration Centers (3 Lots), Derabon, Domiz 1, Gawilan, Duhok Governorate, Iraq, for UNHCR Iraq Operation** can be found in **Annex (A&B): Scope of Work (SOW) & Bill of Quantities**.

Your technical offer should be concisely presented and structured in the following order to include, but not necessarily limited to the following information:

Description of the company and the company's qualifications

A description of your company with the following documents: company profile, registration certificate and last audit reports:

- Year founded;
- If multi location company, specify headquarters location;
- Number of similar and successfully completed projects;
- Number of similar projects currently underway;
- Total number of clients; previous and current;

a. **Valid Registration Documents** / Certificate / Incorporation with the Government of Iraq (Federal Government or Kurdistan Region) as a construction or general contracting company, Company Age Not less than 3 years from the date of registration / incorporation.

b. Your technical offer should contain acknowledgement by signing the following mandatory documents as part of your technical proposal:

(i) **Annex G: General conditions of Contracts for the provision of Good and Services (July 2018)**

(ii) **Annex H: UNHCR General Conditions of Contracts for Civil works (October 2000)**

(iii) **Annex I: Supplier's Code of conduct.**

Please note that submitting an offer is deemed as full acceptance of UNHCR's General Conditions for contracts and UN supplier code of conduct. [Signed copy of Annexes G, H & I are not required at this stage]

c. Bid Security: Your technical offer should contain the sum of **USD 10,000** in the form of Certified Bankers Cheque issued from a local bank. The bid security must be valid for at least 180 Days after the closing date of the tender. ***(Please include a scanned copy of bid security in your technical documents submitted through eTenderbox and keep the original. UNHCR may ask to submit original copy at later stage of the evaluation.)***

The bid security for the unsuccessful bidders will be released with the regret letter(s). The Bid Security for the successful bidder(s) will be released upon the submission of the Performance Bond and upon the signing of the Awarded Contract.

Your bid security may be forfeited: If you withdraw your offer during the period of the Bid Validity specified by you in your offer: or, In the case of a successful Bidder, if you fail to sign the Contract/Purchase Order - in which case, you would have refused the offer.

d. **Award and Performance Bond (bank guarantee):**

The Firm that submits the successful Proposal will be notified by "Letter of Award" prior to the expiration of the validity period. The letter, referred to as the "Letter of Award" will state the sum of the fees to be paid to the Firm for the services rendered and will indicate the terms under which the Contract must be finalized. The Contract must be signed within 14 days of the issuance of the Letter of Acceptance. The successful bidder will be required to furnish UNHCR with a **10% BANK GUARANTEE** of the contract value from a reputable bank in the next 7 days, valid for the entire period of the contract and the period for defects and liabilities period.

e. List of Equipment owned by the firm to be mobilized for the execution of works described in **Annex (A&B): Scope of Work (SOW) & Annex B: Bill of Quantities.**

f. Frame-time for completion of the project including the main project milestones; Incomplete Gantt chart, no Gantt Chart or Proposed Gantt chart (more than 36 days) of the indicated duration in (SoW) or Project Schedule not indicating a detailed sequence of activities of the proposed duration of **240 Days.**

g. Experience and performance records with other UN Agencies, NGOs or any other major clients and other credentials.

h. Similar Past Experience (Copies of 5 Purchase Orders (POs) with a value more than USD 150,000/ contract agreements, or work orders for **construction, rehabilitation, renewable energy and sanitation projects and landscaping projects** with proof of project completion in the **past ten (10) years**

i. Project assumptions and constraints based on your understanding of the project, construction, rehabilitation, renewable energy, and sanitation projects)

j. The methodology/approach to be used in addressing the issues outlined in the BoQ;

k. Submit the latest 2 consecutive years' financial audited reports for the years **(2020-2021-2022)**; Audited Financial reports must include the Balance Sheet and must be certified by the Iraqi Association of Accountants, clearly demonstrating a minimum cumulative turnover of **USD 300,000.00.**

l. **Vendor Registration Form:** If your company is **not** already registered with UNHCR, you should complete, sign, and submit with your technical proposal the **Vendor Registration Form (Annex F)** however incase if your company is

registered, please clearly state your supplier/vendor ID. In-case if you are not sure about the status of your company, please send you're a duly filled Vendor Registration Form with copy of Tax Registration Certificate.

- m. Any information that will facilitate our evaluation of your company's substantive reliability, financial and managerial capacity to provide the requested requirements by UNHCR as specified in **Annex A: Scope of Work (SOW) & Annex B: Bill of Quantities**.

Understanding of the requirements of the services requested in the solicitation documents such as: proposed approach, solutions, methodology and outputs.

Any comments or suggestions on the project, as well as your detailed description of the manner in which your company would respond to the BOQs:

- A description of your organization's capacity to provide the required services.
- A description of your organization's experience in undertaking / implementing the project.
- Compliance to the requirements stated on the in the BOQ and/or technical proposal form.

Proposed personnel to carry out the assignment.

- The organization structure or organizational chart. List of key personnel and their qualifications with Curriculum Vitae of core staff.

Where deemed necessary a supplier visit may be required to complement the narrative of the technical evaluation.

IMPORTANT:

Companies not submitting the required documents with their proposal may be contacted by UNHCR and given one more opportunity (within 48 hours) to submit them (Only for the Administrative requirements **criteria no. 2, 3, 4, 5 & 6 (Tax Registration Certificate, Bid security, Business Registration Documents, Tax Registration Certificate and Annex O Submission Checklist (Duly signed and Stamped))** Should these companies still not submit the missing documents, they will then be disqualified.

2.4.2 Content of the FINANCIAL OFFER

Your separate Financial Offer must contain an overall offer in United States Dollars (USD). The financial offer must cover all the services to be provided (price "all inclusive"). If no financial offer is received, the bid shall be automatically disqualified.

The Financial Offer is to be submitted as per the **Annex A: Scope of Work (SOW) & Annex B: Bill of Quantities & BIDS THAT HAVE A DIFFERENT PRICE STRUCTURE MAY NOT BE ACCEPTED.**

UNHCR is exempt from all direct taxes and customs duties. With this regard, **price has to be given without VAT.**

You are requested to hold your offer valid for a minimum of **180 days** from the deadline for submission. UNHCR will make its best effort to select a company within this period. UNHCR's standard payment terms are within 30 days after satisfactory implementation and receipt of documents in order.

The cost of preparing a bid and of negotiating a contract, including any related travel, is not reimbursable nor can it be included as a direct cost of the assignment. Any activity undertaken or expenses incurred in preparation of a contract before an actual contract is signed shall be borne by the Bidder. An advance notice or information of award is not to be considered as a contract.

UNHCR will not provide any advance payments or payments by letter of credit. The standard payment terms are by bank transfer net thirty (30) days after acceptance of contractor's invoice and delivery and acceptance of services by UNHCR in shape of a partial or substantial works completion certificate issued by the designated Project Manager / Engineer.

IMPORTANT: UNHCR can only facilitate payments through the local banks and not banks outside of Iraq and therefore the current market condition must be factored in before submitting your quote.

IMPORTANT: Bidders are required to submit the financial offer both in PDF and Excel Sheet (Soft Copy) in the Template provided in Annex L: Financial Offer Form

2.5 BID EVALUATION:

Each proposal from a Bidder will be considered separately and independently. Bidders shall submit a complete proposal for each solicitation in which they wish to participate. References to previous or on-going proposals will be not considered. Award of a previous contract with UNHCR will not be considered in itself as a preference or guarantee for the award of future solicitations on the same subject.

2.5.1 Supplier Registration:

The qualified company (s) will be added to the Vendor Database after investigation of suitability based on the submitted Vendor Registration Form and supporting documents. The investigation involves consideration of several factors such as:

Financial standing;
Core business;
Track record;
Contract capacity;

2.5.2 Technical and Financial evaluation:

For the award of this project, UNHCR has established evaluation criteria which governs the selection of offers received. Evaluation is made on a technical and financial basis. The percentage assigned to each component is determined in advance as follows:

- **Technical Offer will be weighed at 60 points (or 60%)**
- **Financial Offer will be weighed at 40 points (or 40%)**

Technical Offer

The Technical offer will be evaluated using inter alia the following criteria and percentage distribution: **60% from the total score**, with a minimum passing score of **36 points in overall**, and **minimum 20 points for technical specification of works**.

Annex D: Detailed Technical Evaluation Criteria

Evaluation Factors
Mandatory
Mandatory Site Visit: The contractor should send an engineer/technical staff to visit the site on the said date and time and sign their company's name on the attendance sheet. <u>(The Engineer should bring an authorization letter from the company and show their engineering union ID card)</u> <u>(The attendant should show any proof that he/she is an engineer).</u>
Valid Registration Documents / Certificate / Incorporation in Iraq with Federal Government or Kurdistan Region of Iraq)
Company Age Not less than 3 years from the date of registration/incorporation.
Valid Tax Registration Certificate
Mandatory bid security of USD 10,000 by "Good for Payment Cheque/Certified Cheque" made out in the name of UNHCR covering the offer's validity (180 days) It should be a certified cheque (not personal). The cheque should indicate the RFP number & Title and must be issued under the company name. The selected company would be required to submit the original cheque.
Has the bidder submitted a duly signed/stamped Checklist (Annex – O)
Scoring Criteria
General Company Qualification & experience (0-14 Point)
Relevant Experiences (0-8) marks
Technical Specification of Works (0-30) marks (Min Passing point is 20 Points)
Work Plan & Method of Implementation (0-8)
Total Marks (60)

The Technical offer score will be calculated according to the percentage distribution for the technical and financial offers. The cut-off points for submissions to be considered technically compliant will be 60% of the total technical weightage i.e. **36 out of the 60**.

Financial Offer:

The Financial offer will use the following percentage distribution: **40%** from the total score. The financial component will be analyzed only for those suppliers that pass the technical evaluation.

The maximum number of points will be allotted to the lowest price offer that is opened and compared among those invited firms. All other price offers will receive points in inverse proportion to the lowest price, e.g., $[\text{total Price Component}] \times [\text{US\$ lowest}] \setminus [\text{US\$ other}] = \text{points for other supplier's Price Component}$.

Clarifications of Proposals:

To assist in the examination, evaluation, and comparison of proposals UNHCR may at its discretion ask the Bidder for clarification about the content of the proposal. The request for clarification and the response shall be in writing and no change in price or substance of the proposal shall be sought, offered, or accepted.

UNHCR reserves the right to award without clarifications and/or discussions. If there are arithmetic mistakes in the budget of the technically acceptable applicants, UNHCR will rectify these mistakes on the following basis:

- a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected; and
- b) If there is a discrepancy between the amounts in figures and in words, advantage will be given to the amounts in words.

If the correction(s) leads to a different total cost, this new total cost will be evaluated against other technically acceptable Proposals and considered as being part of the Best Value evaluation and selection. UNHCR reserves the right to reject the Proposal if the technically acceptable applicant does not accept the correction of mistakes in the budget by UNHCR.

2.6 SUBMISSION OF BID:

The offers must bear your official letter head, clearly identifying your company. The Technical and Financial offers shall be clearly separated.

Please submit your proposal through an online eTenderBox Tool, which can be accessed at <http://etenderbox.unhcr.org>.

To submit a proposal against UNHCR tender, the bidder needs to register in eTenderbox system. Please refer to the eTenderbox user manual for bidders at Annex J: **e-Tender Box Supplier user manual**. You are requested to get familiar with this tool and create a login by registering your company in the system for access to the current and upcoming UNHCR tenders.

Once the login is created, the bidder will be given access to the UNHCR available tenders. Bidders can access the specific tender by clicking on the "tender reference number", the system will then navigate to the detailed tender review page, where the separate technical and financial submissions can be done.

It is the bidder's responsibility to upload only technical documentation under the "Technical" category and Financial documentation under the "Financial" category. Failure to do so will result in disqualification.

Note: The official submission of the selected files for upload is done by clicking the 'Save & Submit' button, therefore, this button has to be clicked before the deadline expires. If done so, the selected files will be submitted and uploaded successfully even if the deadline expires during the file upload. It is the Supplier's responsibility to ensure that all files of the final offer are submitted before the tender expiration deadline. In order to ensure the safe submission of the full and final offer, it is recommended to have all files uploaded well before the tender deadline.

Allowed extensions for files to upload are .doc, .docx, .xls, .xlsx, .rtf, .png, .jpg, .jpeg, .pdf, .txt, .zip, .ppt, .pptx, .bmp, .rar, .gif, .tif and .tiff, however **it is preferable to upload PDF files. Executable files** (.exe, .bat, .cmd etc.) should not be uploaded. All files should be clearly labeled. **The maximum size limit per file is 10MB.**

IMPORTANT: The technical offer and financial offer are to be sent in separate documents. Failure to do so may result in disqualification.

IMPORTANT: DEADLINE TO SUBMIT YOUR BID: **25/09/2023 BY 23:59 HOURS LOCAL TIME:** Any bid uploaded after this date and time will be rejected. UNHCR may, at its discretion, extend the deadline for the submission of bids by notifying through eTenderbox.unhcr.org and WWW.UNGM.ORG.

IMPORTANT: Any bid received after this date or sent to another UNHCR address may be rejected. UNHCR may, at its discretion, extend the deadline for the submission of bids, by notifying all prospective bidders simultaneously.

UNHCR will not be responsible for locating or securing any information that is not identified in the bid. Accordingly, to ensure that sufficient information is available, the bidder shall furnish, as part of the bid, any descriptive material such as extracts, descriptions, and other necessary information it deems necessary for a comprehensive understanding of its proposal by UNHCR.

IMPORTANT: The Financial offer will only be opened for evaluation if the supplier's technical part of the offer has passed the test and has been accepted by UNHCR as meeting the technical specifications.

2.7 BID ACCEPTANCE:

UNHCR reserves the right to accept the whole or part of your bid or allow split or partial awards on this project. It is however important to note that the construction project cannot be split unless the various components are defined by LOT. All other projects are to be awarded on an all or nothing basis.

Important: Any missing cost for a line in Bill of Quantities & Financial Offer will be considered invalid.

UNHCR may at its discretion increase or decrease the proposed content when awarding the contract and would not expect a significant variation of the rate submitted. Any such increase or decrease in the contract duration would be negotiated with the successful bidder as part of the finalization of the Purchase Orders for Services.

Please note that UNHCR is not bound to select any of the firms submitting bids and does not bind itself in any way to select the firm offering the lowest price. Furthermore, the contract will be awarded to the bid considered most responsive to the needs, as well as conforming to UNHCR's general principles, including economy and efficiency and best value for money.

Some of the reasons of disqualification:

Some of the reasons which may lead to such disqualification of your offer are as following: Proposal if:

1. The Applicant's qualification or data are proven to be false; The selected Applicant refuses to enter into a contract.
2. The Applicant commits a proven unfair or dishonest act in order to acquire rights for agreement award.
3. The proposal is received through any other means of communication except as specified in this solicitation document under Article 2.6 SUBMISSION OF BID
4. The offer is received after the deadline for submission of bids stated in the tender documents; and/or Sent via the correct route after having been sent incorrectly.
5. Any changes made to the BOQ by the bidder may result in disqualification of the offer.

2.8 CURRENCY AND PAYMENT TERMS FOR PURCHASE ORDERS

Any Purchase Order (PO) issued as a result of this RFP will be made in the currency of the winning offer(s). Payment will be made in accordance with the General Conditions for the Provision of Goods and Services and in the currency in which the PO is issued. Payments shall only be initiated after confirmation of successful completion by UNHCR business owner.

Any Purchase Order (PO) issued as a result of this RFP will be made in USD. Payment will be as follows:

- a) **1st Payment (30%)** of contract value after completing **40% of work**.
- b) **2nd Payment (40%)** of contract value after completing **80% of work**.
- c) **3rd Payment (20%)** of contract value after completing **100% of work**.
- d) Payment Retention: 10% of the total project amount will be withheld from the Final Payment as Retention Amount for a period of Defect Liability Period of **Six Months** after completion of the project.

2.9 UNHCR GENERAL CONDITIONS OF CONTRACTS FOR CIVIL WORKS (OCTOBER 2000)

Please note that the **UNHCR General Conditions of Contracts for Civil works (October 2000) (Annex H)** will be strictly adhered to for the purpose of any future contract. The Bidder must confirm the acceptance of these terms and conditions in writing.

2.10 UNHCR GENERAL CONDITIONS OF CONTRACTS FOR THE PROVISION OF GOODS AND SERVICES

Please note that the **Annex G: General conditions of Contracts for the provision of Good and Services (July 2018)** will be strictly adhered to for the purpose of any future contract. The Bidder must confirm the acceptance of these terms and conditions in writing.

2.11 UN Suppliers Code of Conduct

Please note that the Annex I: UN Supplier Code of Conduct will be strictly adhered to for the purpose of any further contract. The Bidder must confirm the acceptance of these 'Cod of Conduct in writing.

2.12 Liquidated Damages

- 2.12.1** In accordance with the provisions made in the Article 45 of (The UNHCR General Conditions of Contract for Civil Works (October 2000 version) and in Article 17 of the UNHCR Standard Contract for Construction Services. The Contractor acknowledges the requirement of UNHCR to be completed **in accordance with the time frames stipulated contract resulting from this solicitation process with the successful bidder**. The successful bidders will therefore be required to acknowledge, that time is of the essence in relation to performance of its obligations.
- 2.12.2** Should the Contractor be in delay, without prejudice to UNHCR's other rights and remedies, UNHCR may, at its sole option, demand liquidated damages for such delay, in an amount equal to **0.1%** for each DAY for the portion of incomplete portion of the works of delay beyond the date upon which the Services were due to be completed. The Parties agree and acknowledge that calculation of damages from a breach would be difficult to estimate accurately and that the foregoing The assessment will not exceed 10 percent of the Contract value is a reasonable approximation thereof and is intended as the fair allocation and liquidation of damages and not as a penalty against the Contractor.
- 2.12.3** UNHCR shall have the right to deduct any liquidated damages to which it is entitled under the terms of its standard contract for construction services from any monies due from UNHCR to a potential Contractor (resulting from this solicitation process), or to recover the same as a debt due from the Potential Contractor.

2.12.4 Liquidated damages shall be payable by virtue of the sole fact of the delay without the need for any previous notice or any legal or arbitral proceedings, or proof of damage, which shall in all cases be considered as ascertained.

Signature

Anwar Ul Haq,
Associate Supply Officer
UNHCR Country Office Erbil

Annex A Scope of Work (SOW)

Installation of Solar Energy Generating System for UNHCR Registration Centers, Derabon, Domiz 1, and Gawilan 3 Lots

Background

UNHCR conducts registration and identity management activities for asylum seekers and refugees on a continuous basis, including renewal of UNHCR asylum seeker and refugee certificates. This includes ensuring all changes in biodata and changes in family composition are accurately recorded and verified relying on individual identity documents.

As of August 2023, Duhok Governorate and Zakho Independent Administration (ZIA) hosts some 90,000 individuals/23,000 households in urban and camp locations (Domiz I, Domiz II, Akre, Gawilan and Bardarash Transit Facility), with over 55 percent of cases living in camp settings. Most of these cases have been residing in Dohuk since 2012-14 and have been in Duhok for almost a decade. There are also several Turkish and Iranian cases in Dohuk as well residing in urban areas who access the Registration Centre in Domiz 1 Camp. Each case is required to undergo renewal every year (asylum seeker) or every two years (refugees). About 70% of the total refugee and asylum seeker individuals get their UNHCR documentation and renewal at Domiz 1 and Gawilan Registration Centres. The centres also include Protection, Community-Based Protection (CBP) and Legal services delivered by UNHCR's partner, Harikar and Child Protection Service by the Lotus Flower. Overall, around 700 individuals approach the Domiz Registration Centre and Gawilan Registration Centre each day from Sunday to Thursday, from 8 AM to 4 PM, to access registration and protection services. On average 40-50 staff from UNHCR and partner rely on these facilities.

The Derabon Return and Counselling Centre was established on 28 May 2013. Peshkhabour Border Crossing Point (PK-BCP) is the only exit point, via land, for Syrians aiming to formally return to their Country of Origin (CoO). Derabon return centre is located 10 km far from the border and accommodates a team of UNHCR and Asyaesh responsible to record spontaneous return requests and provide protection services to cases identified with protection concerns, before approaching PK-BCP.

Since its construction, the Centre depended on two sources of energy, the main grid and a diesel generator for power generation. However, the reliance consumes a significant amount of funding resources and contributing into noise pollution in the area.

As a primary initiative to go Green, a Solar-hybrid power system was installed in August 2022 at the Derabon Centre. The system provides a reliable and consistent power source for IT equipment in the server room, such as the ticketing machine, internet system, and attendance recording device.

The further expansion in the domain aims to mainstream eco-friendly, reliable, and consistent power source and moving one step closer to Sustainable Energy Action Plan of KRG. At the same time, the further investment will conclusively support in provision of in time assistance and inclusive environment for PwS.

The work includes:

- **Installing Photo Voltic Solar System**
- **Provision and installation of inverters, smart inverters**
- **Provision and installation of Maximum Power Point Tracking MPPT smart solar charger**
- **Provision and installation of the following items:**
 - o **Racking for Panels**
 - o **Earth system**
 - o **Anti lightning**
 - o **Batteries with DC battery protection**
- **Civil works components:**

- Casting concrete for Solar panel floor
- Fence works.
- Gate works.
- Solar Panel Protection System
- Photovoltaic Cleaning Equipment

No	Item/s to be Supplied	Description/ Specifications of Goods	Related Services	Contract Duration
1	Following the items' descriptions in the BOQ and technical drawings	As per BOQ	As per BOQ	240 calendar days

Site Visit: Mandatory,
Domiz Registration Center
Gawilan Registration Center
Derabon Repatriation Center

Annex B: Bill of Quantities

Lot 1

**Solarization (Installation of PV Solar System) in Derabon Repatriation Center
Zakho, Duhok Governorate, Iraq
General Notes/ Guidance**

1. All the work items should be done according to IGTS that complies with ACI-Code 1995 applied according to the instructions of the supervising Engineer.
2. All materials must be NEW from best type, approved by supervising Engineer.
3. All construction materials should be tested according to Construction Works Specification by NCCL (1981 edition).
4. The contractor shall provide samples for all materials to be used in the project prior to using them to get approval from supervising Engineer.
5. It is the duty of the contractor to check the designs for accuracy and adequacy, otherwise the UNHCR will take no risk of the contractor's failure to accomplish the work.
6. The contractor shall provide all required manpower, transportation, equipment, tools, machinery... etc. unless otherwise stated below.
7. In case of any difference between BOQ, designs and/or drawings; the instruction of supervising Engineer will prevail/govern. And In case any components (for any necessary Civil, Mechanical and Electrical Works) required further design and calculation, the contractor needs to provide adequate human resources to prepare the detail design works (full package for rehabilitation and for solarization (installing PV solar system) with approval from Engineers Union or any certified relevant party.
8. After all works are finished the site must be cleaned from all debris and waste materials must be removed to a dumping site designated by the municipality and disposed in an environmentally friendly manner.
9. Normal site office for the Engineer: Constructing or providing normal working space for Site Engineers, furniture, and office equipment, including consumable materials, stationary. Office in temporary set up will be accepted.
10. The contractor is responsible for fixing any damages or defects happened during the implementation.
11. The Supervising Engineer can ask for a Certificate of Origin & Quality to ensure the quality of the materials will be used in the projects. The Supervising Engineer can ask Lab test to certify quality of materials.
12. Supply Labors, required materials, equipment, tools, machines, and skilled labors for installing a Photovoltaic Main/Back-up Solar Power Generator, consisting of Solar Panels, Solar Racks, Smart Invertors, power bank, Regulators, Connection Cables, Plugs & Sockets...etc as Main/ Stand-by Power Sources that supply power during the day and according to the below item descriptions/specifications. All the provided below materials should be good and approved quality by supervising Engineer (Certificate of Origin and Quality should be provided).

No	Item Description	Unit	Quantity
#1	Installing a New PV Solar System		
#2	The contractor must submit all electrical and civil detailed designs, drawings, diagrams, and laboratory tests before commencing the work.		
#3	The analysis must be done for the surface on which the solar energy system will be installed, in terms of bearing weight, wind force, and the rest of the laboratory tests. In the case that the tests prove that the roof does not comply with the specifications (bearing weight, wind force), the contractor must submit a complete plan for laboratory tests, designs, drawings to support the roof.		

A	General Descriptions/Guidelines:- Provide the required materials, equipment, tools, machines, and skilled labors for Providing and installing a Photovoltaic Solar System, Hybrid ON-Off-Grid Complete Set of Total Production Capacity = 175 Kw, Inverter Rated Nominal /Min.Power 150 Kw, Overload 200% during 60sec, Protection Class IP20/IP54, Built-in MPPT, Built-in Fuse Box, Monitoring with GPRS module and Automatic transfer switch) consisting from Solar Panels, Solar PV panel Support Structure, Smart Solar inverters for the whole components of the center, DC Connection Cables, MC-4 DC connectors and AC cables...etc. As Main Power Sources supply the required power during the daytime for all electrical components according to the below item descriptions/specifications. All the provided below materials should be of Country Origin of approved quality by the Supervisor Engineer (a Certificate of Origin and Quality should be provided). The System should be daytime work from solar energy and at night work from the national grid/diesel generator. The contractor should prepare a detailed Design Work by an authorized Consultant Expertise Engineer with all details for the required PV Solar Unit (Full Package, includes all Electrical with earthing & anti lighting/all protection system, Mechanical and Civil Works) and for all other related works according to the above-mentioned requested descriptions, existing site requirements and under supervision & approvals of the UNHCR Engineer.		
A1	PV Solar Panels :- Provide, install, test and commission the required numbers (Set) of New PV Solar Panels which should have the following specifications (Minimum): - Heterojunction HJT, N-Type, Half-Cut-Cell, 12 or 9 Busbar (MBB), Bifacial (preferable), Mono Crystalline, must be from one of the world well-known brands/from one of the leading top ten PV solar panel manufacturers, good frame thickness, the module conversion efficiency of Min. 21%, No/low LID and PID. Product Warranty of 12 years and Power Warranty of 25 years with lowest and minimum degradation. PV module production capacity (Minimum =500 Wp, Total production minimum 175 Kw), internationally certified by TUV Rhineland to ISO, BS and UV standards with required certificates, Max. Wind/Snow Load 2400 / 5400 Pa, Junction Box 67 / 68 IP, Front / Back Glass 2.0 mm Anti-reflet coating semi-tempered glass, low iron, Frame Anodized aluminum alloy, Junction Box IP68, 3 diodes - MC4 Compatible, Output Cables* 4.0 mm ² , 350 mm - 1200 mm(cable should be suitable for leapfrog connection, including foundation, structures and accessories, all other/related required works. Note: - The number of Solar Panels depends on each panel's outputs but the total production capacity (Peak) of the new solar unit/system should not be less than 175,000 Watts and the Contractor is responsible for the proper design of the number of panels and strings to meet the existing system requirements.	LS (complete set)	1.0
A2	Combiner Box: Supply and install a PV panel combiner connection box, complete with an earthing and surge suppressor system. The earthing system should be tested and maintain a resistance of less than 5 Ohms. The price also includes a Parallelized Busbar box, which is a DC busbar distributor system furnished with DC fuses and a fuse holder designed to distribute overcurrent-protected power to all high amperage DC devices, thereby ensuring protection for all connections.	Unit	20.0

A3	Inverter: Supply and install a 150 KW AC 220V/380 V pure sine wave hybrid solar inverter/charger from manufacturers such as (SCHNEIDER, SMA, Fronius, Victron or equivalent) or from a well-known origin. The inverter should meet the following specifications: -Minimum warranty of 5 years -Capability to operate in both split phase and three phase -Anti-islanding capability for safety and protection -Zero-second transfer time when power sources change -Two separate AC inputs for the grid & diesel generator -Two distinct AC outputs for essential and non-essential loads -Operating temperature range of -30 to +65 degrees -Protection category of a minimum IP 20 -Safety standards compliance with EN-IEC 60335-1, EN-IEC 60335-2-29, EN-IEC 62109-1, or any equivalent international certification, and should feature an AC bypass input function. Note:- The number of inverters depends on each inverter's outputs but the total production capacity (Peak) of the inverter unit/system should not be less than 150,000 Watts and the Contractor is responsible for the proper design of the number of inverters and strings to meet the existing system requirements. The contractor must also provide the certificate of origin and quality certificates for the products used in the project. All products are to be approved by the supervising engineer prior to installation. Smart Inverter: Control and Monitoring: Supply and install a monitoring and data viewing LCD control panel, built into the inverter or external, from manufacturers such as (SCHNEIDER, SMA, Fronius, Victron or equivalent) or from well-known origin. This panel should offer an online portal for wireless monitoring, configuration, and data storage through an internet connection. The control unit must have the capability to control all system items. MPPT Smart Solar Charger: Supply and install an MPPT (Maximum Power Point Tracking) smart solar charger, either built into the inverter or standalone units (10 pieces). (SCHNEIDER, SMA, Fronius, Victron or equivalent) or from well-known origin. The contractor must also provide the certificate of origin and quality certificates for the products used in the project. All products are to be approved by the supervising engineer prior to installation.	Set	1
A4	Cables and Accessories: Supply and install the following: -AC and DC MCCBs (Molded Case Circuit Breakers) -MC4 connectors for the entire project -All required types and sizes of AC and DC electrical cables, complete with all connections. -The work also includes upgrading/adapting the existing (if required) wiring/cables of the existing buildings. These include connections between solar panels, the combiner box, inverter, and terminal electrical boxes, as well as those that come and go from the main source and solar system, AC changeovers and circuit breakers.	Set	1.0

A5	Racking for Panels: Supply and install a Galvanized Steel or Aluminum Structure/Tower (Canopy Structure is preferable). This Module Support Structure must be heavy-duty, highly resistant, and of the required height as per site requirements, technical drawings, and instructions from the Supervising Engineer. The structure, designed for mounting the solar panels, should conform to BS5950. It must be made from Aluminum or square hollow galvanized steel sections with vandal proofing. The structure supporting the PV module should be anchored to the concrete base and have a weight of 3.02 mt/kg, and to be fixed to the roof by suitable materials whenever needed. The set-up should include complete fittings and be capable of withstanding a wind load of 60m/s and a snow load of 1.4kg/m². The structure should have a flexible installation angle and come with certifications, tests, and a 10-year warranty. All components must be pre-cut. The contracted company should consider specific racking for the solar PVS installed over the shade (structure), so that all the panels are at the same level and direction to the south with necessary angle.	Set	1.0
A6	Cable trench: Supply and install suitable Cable trench using PVC pipes and manholes, the price includes all needed accessories and works	L.S	1.0
A7	Earth system: supply, install and connect an earth for the whole system, contain (3 piece of 25mm dia /150cm length of pure Copper rods) connected by (1x50mm²) Cu wires, all connections should be bandaged by Copper welding or using Cu clamps, then to be connected through the same CU wire to the ground distribution bus bar of MDB, each rod should be buried in the excavated hole of (0.5x2x3)m, then back filled sequence by (coal, salt, bentonite clay) with providing plastic manhole for each rod.	Set	1.0
A8	Anti lightning : Supply, install and connect anti lightning system of type (Early streamer emitter (ESE) ,using suitable 6m GS pole ,including (3 * (16mm-25mm) dia /150cm length of pure Copper rods) connecting by (1x50mm²) Electrolytic Copper Conductor, ,Exothermic welding way should be use. Back filling sequence by (coal, salt), Lightning system is active Type the radius of protection shall cover all the Plant and work must done according to the supervisor engineer's instruction	Set	1.0
A9	Batteries with DC battery protection: Supply and Install Battery with DC battery protection box, Battery backup Lithium type, battery bank voltage is 51.2V, totally 79.2KWH, capacity of each battery is 200Ah. 5000 cycles with 50% DOD and 2 years warranty. battery must be from world well-known brands (BAE) or equivalent and from leading top three manufacturers. Battery must fit with inverter brand; the price includes all necessary materials and work to connect with selected inverter. the price includes batteries dc protection.	each	15
A10	Battery Rack with cooling system	each	3
A11	Thermal Solar Unit for Domestic Hot Water Supply: -Supply and install thermal solar panel unit (full package active-continuous flow type - Glazed) of 500 Liters production storage capacity for hot water supply. The unit consist of Glazed Glass Solar Collector, Boiler of 500 Liters should be equipped with an electrical water heater element of 2000 Watt with a thermostat, Circulation Pump, Operation Control System, Surge Tank with all other electrical & mechanical accessories and plumbing works. The work also includes all plumbing works/pipes by suitable size of PEX-Al-PEX with fittings, thermal insulation materials. The location of the unit should be as per the instructions of the Site Engineer. all necessary fittings and accessories (Tee, Elbow 45/90 degree, valves, etc.) and connecting with electrical source by best-approved wire 3*4mm ² inside trey cable as well as good brand dipole switch plugs 30 amp.	Unit	1

B	CIVIL WORKS		
	The company is required to provide the necessary human resources, materials, and equipment to conduct assessments/surveys and develop a design for the canopy/shade structure intended to support the solar PV system. This structure will be situated over the parking area and other identified locations for the solar system. While developing the design, the company must consider the minimum specifications mentioned in the upcoming item and account for the mobility of visitors and vehicles. the design and technical specifications should be developed by a structural designer, approved/certified, and is subject to the approval of UNHCR.		
B1	Construction of the Steel Structure: (Measurement will be based on the top view.) The company is to supply materials and labor for constructing a new steel structure for the installation of the solar panels. This includes the excavation of the foundation for the columns with dimensions of 80x80x80cm and the casting of the foundation with reinforced concrete of the same dimensions. The structure will consist of iron columns with a size of IPE 220 and a clear height of 4m. The work will also include a steel base (bearing plate) measuring 40x40 cm with a 16mm thickness, to be affixed to the column. The company should use IPE 150 for the slab structure. The main grader will use a rectangular pipe measuring 10x10cm with a thickness of (2.8-3) mm, set at an interval of 2m c/c. Then a square pipe measuring 4x8cm, with a thickness of (1.8-2) mm at an interval of 1.0 m c/c (Taraheya) will be used. All steel structures should be fixed by welding and bolts. The price must include painting the frame with two layers of anti-rust and oil paint. All work should be carried out according to the instructions of the supervising engineer and the design provided by the contractor.	m2	700
B2	Photovoltaic Cleaning Equipment: Supply and install an electric double-head photovoltaic panel cleaning equipment capable of high-efficiency cleaning, with a width of 65cm, facilitating an operational output of 500-750 square meters cleaned per hour per individual. The cleaning equipment should possess the following attributes: • Lightweight and easily portable design for convenient operation. • A water-saving feature, with a consumption of 1.5 to 3 liters per square meter, translating to 9 to 15 tons per MW for cleaning. • Cleaning capacity of 0.8 MW to 1.2 MW per person per day. • Strong adaptability, facilitated by a knapsack lithium battery-powered scrubbing system. • Length of arm > 6 meter The contractor must also provide options for water supply equipment, suitable for a range of environmental conditions, and ensure the equipment can accommodate water pressure of less than 1.3mpa. All products are to be approved by the supervising engineer prior to installation.	L.S	1
B3	The contracted company should provide necessary manpower and equipment to conduct an analysis of the surface (existing roof of the shade in the center) upon which the solar energy system will be installed. This analysis should include load assessments such as the weight of panels and racking structure, bearing weight, wind force, etc. If the analysis/redesign confirms the necessity to strengthen the structure for installing the solar PV system over the roof, the contracted company must execute the work as mentioned in the subsequent item (# B4). The final design must be approved by a specialized design bureau or engineering office, as well as by the engineering syndicate.	L.S	1

B4	Should the design in item # B3 necessitate structural strengthening of the shade over the center, the contracted company is obliged to provide necessary materials, manpower, and equipment to perform the work as per the designer's recommendations. The required materials may include iron columns, iron beams, fittings, etc., as detailed and recommended by the design. These materials should be of the highest quality brands and must be approved by the supervising engineer prior to installation. UNHCR reserves the right to cancel this item if it is deemed unnecessary. In such an event, the company will not be eligible for any compensation. In case of implementation, the actual measurements will consider the top area of the work and not the inclined area.	M2	800
B5	Mobile Scaffold Tower: Supply and install a 4.00m high mobile scaffold tower. The mobile scaffold tower should be lightweight, equipped with four swivel casters for easy relocation, and designed with a one-piece folding frame and working platform for swift setup. It can be extended up to 4m platform height with a 6m reach. The mobile scaffold tower should meet all safety standards. Dimensions: 242 × 81 × 87 cm. The Mobile Scaffold Tower includes: -Four 125mm Scaffold Castors -One 1.90m Scaffold Folding Frame -Two 1.9m Trapdoor Platforms -Nine 1.9m Horizontal Braces -Two 1m Frame Guardrails -One 1.9m Folding Toeboard -Two 2.1m Outriggers -Two 1.3m Ladders with braces -Two 1.9m Diagonal Braces -Two 2.00m Scaffold Extension Frames	UNIT	1

Lot 2

Solarization (Installation of PV Solar System) IN Domiz 1 Registration Center Faida, Duhok Governorate, Iraq

General Notes/ Guidance

1. All the work items should be done according to IGTS that complies with ACI-Code 1995 applied according to the instructions of the supervising Engineer.
2. All materials must be NEW from best type, approved by supervising Engineer.
3. All construction materials should be tested according to Construction Works Specification by NCCL (1981 edition).
4. The contractor shall provide samples for all materials to be used in the project prior to using them to get approval from supervising Engineer.
5. It is the duty of the contractor to check the designs for accuracy and adequacy, otherwise the UNHCR will take no risk of the contractor's failure to accomplish the work.
6. The contractor shall provide all required manpower, transportation, equipment, tools, machinery... etc. unless otherwise stated below.
7. In case of any difference between BOQ, designs and/or drawings; the instruction of supervising Engineer will prevail/govern. And In case any components (for any necessary Civil, Mechanical and Electrical Works) required further design and calculation, the contractor needs to provide adequate human resources to prepare the detail design works (full package for rehabilitation and for solarization (installing PV solar system) with approval from Engineers Union or any certified relevant party.
8. After all works are finished the site must be cleaned from all debris and waste materials must be removed to a dumping site designated by the municipality and disposed in an environmentally friendly manner.
9. Normal site office for the Engineer: Constructing or providing normal working space for Site Engineers, furniture, and office equipment, including consumable materials, stationary. Office in temporary set up will be accepted.
10. The contractor is responsible for fixing any damages or defects happened during the implementation.
11. The Supervising Engineer can ask for a Certificate of Origin & Quality to ensure the quality of the materials will be used in the projects. The Supervising Engineer can ask Lab test to certify quality of materials.
12. Supply Labors, required materials, equipment, tools, machines, and skilled labors for installing a Photovoltaic Main/Back-up Solar Power Generator, consisting of Solar Panels, Solar Racks, Smart Invertors, power bank, Regulators, Connection Cables, Plugs & Sockets...etc as Main/ Stand-by Power Sources that supply power during the day and according to the below item descriptions/specifications. All the provided below materials should be good and approved quality by supervising Engineer (Certificate of Origin and Quality should be provided)

No	Item Description	Unit	Quantity
#1	Installing a New PV Solar System		
#2	The contractor must submit all electrical and civil detailed designs, drawings, diagrams, and laboratory tests before commencing the work.		
#3	The analysis must be done for the surface on which the solar energy system will be installed, in terms of bearing weight, wind force, and the rest of the laboratory tests. In the case that the tests prove that the roof does not comply with the specifications (bearing weight, wind force), the contractor must submit a complete plan for laboratory tests, designs, drawings to support the roof.		
A	General Descriptions/Guidelines:- Provide the required materials, equipment, tools, machines, and skilled labors for Providing and installing a Photovoltaic Solar System, Hybrid ON-Off-Grid Complete Set of Total Production Capacity = 350 Kw, Inverter Rated Nominal /Min. Power 250 Kwe, Overload 200% during 60sec, Protection Class IP20/IP54, Built-in MPPT, Built-in Fuse Box, Monitoring with GPRS module and Automatic transfer switch) consisting from Solar Panels, Solar PV panel Support Structure, Smart Solar inverters for the whole components of the center, DC Connection Cables, MC-4 DC connectors and AC cable...etc. As Main Power Sources supply the required power during the daytime for all electrical components according to the below item descriptions/specifications. All the provided below materials should be of Country Origin of		

	approved quality by the Supervisor Engineer (a Certificate of Origin and Quality should be provided). The System should be day time work from solar energy and at night work from the national grid/diesel generator. The contractor should prepare a detailed Design Work by an authorized Consultant Expertise Engineer with all details for the required PV Solar Unit (Full Package, includes all Electrical with earthing & anti lighting/all protection system, Mechanical and Civil Works) and for all other related works according to the above-mentioned requested descriptions, existing site requirements and under supervision & approvals of the UNHCR Engineer.		
A1	PV Solar Panels :- Provide, install, test and commission the required numbers (Set) of New PV Solar Panels which should have the following specifications (Minimum): - Heterojunction HJT, N-Type, Half-Cut-Cell, 12 or 9 Busbar (MBB), Bifacial (preferable), Mono Crystalline, must be from one of the world well-known brands/from one of the leading top ten PV solar panel manufacturers, good frame thickness, the module conversion efficiency of Min. 21%, No/low LID and PID. Product Warranty of 12 years and Power Warranty of 25 years with lowest and minimum degradation. PV module production capacity (Minimum =500 Wp, Total production minimum 350 Kwp), internationally certified by TUV Rhineland to ISO, BS and UV standards with required certificates, Max. Wind/Snow Load 2400 / 5400 Pa, Junction Box 67 / 68 IP, Front / Back Glass 2.0 mm Anti-reflet coating semi-tempered glass, low iron, Frame Anodized aluminum alloy, Junction Box IP68, 3 diodes - MC4 Compatible, Output Cables* 4.0 mm², 350 mm - 1200 mm(cable should be suitable for leapfrog connection, including foundation, structures and accessories, all other/related required works. Note: - The number of Solar Panels depends on each panel's outputs but the total production capacity (Peak) of the new solar unit/system should not be less than 350,000 Watts and the Contractor is responsible for the proper design of the number of panels and strings to meet the existing system requirements.	LS (complete set)	1.0
A2	Combiner Box: Supply and install a PV panel combiner connection box, complete with an earthing and surge suppressor system. The earthing system should be tested and maintain a resistance of less than 5 Ohms. The price also includes a Parallelized Busbar box, which is a DC busbar distributor system furnished with DC fuses and a fuse holder designed to distribute overcurrent-protected power to all high amperage DC devices, thereby ensuring protection for all connections.	Unit	20.0
A3	Inverter: Supply and install a 250 KW (minimum) AC 220V/380 V pure sine wave hybrid solar inverter/charger from manufacturers such as (SCHNEIDER, SMA, Fronius, Victron or equivalent) or from well-known origin. The inverter should meet the following specifications: -Minimum warranty of 5 years -Capability to operate in both split phase and three phase -Anti-islanding capability for safety and protection -Zero-second transfer time when power sources change -Two separate AC inputs for the grid & diesel generator -Two distinct AC outputs for essential and non-essential loads -Operating temperature range of -30 to +65 degrees -Protection category of a minimum IP 20 -Safety standards compliance with EN-IEC 60335-1, EN-IEC 60335-2-29, EN-IEC 62109-1, or any equivalent international certification, and should feature an AC bypass input function. Note:- The number of inverters depends on each inverter's outputs but the total production capacity (Peak) of the inverter unit/system should not be less than 250,000 Watts and the Contractor is responsible for the proper design of the number of inverter and strings to meet the existing system requirements. The contractor must also provide the certificate of origin and quality certificates for the products used in the project. All products are to be approved by the supervising engineer prior to installation.	Set	1

	Smart Inverter: Control and Monitoring: Supply and install a monitoring and data viewing LCD control panel, built into the inverter or external, from manufacturers such as (SCHNEIDER, SMA, Fronius, Victron or equivalent) or from well-known origin. The inverter should meet the following specifications. This panel should offer an online portal for wireless monitoring, configuration, and data storage through an internet connection. The control unit must have the capability to control all system items. MPPT Smart Solar Charger: Supply and install an MPPT (Maximum Power Point Tracking) smart solar charger, either built into the inverter or standalone units (10 pieces). The product must be SCHNEIDER, SMA, Fronius, Victron or equivalent) or from well-known origin. The contractor must also provide the certificate of origin and quality certificates for the products used in the project. All products are to be approved by the supervising engineer prior to installation.		
A4	Cables and Accessories: Supply and install the following: -AC and DC MCCBs (Molded Case Circuit Breakers) -MC4 connectors for the entire project -All required types and sizes of AC and DC electrical cables, complete with all connections. -The work also includes upgrading/adapting the existing (if required) wiring/cables of the existing buildings. These include connections between solar panels, the combiner box, inverter, and terminal electrical boxes, as well as those that come and go from the main source and solar system, AC changeovers and circuit breakers.	Set	1.0
A5	Racking for Panels: Supply and install a Galvanized Steel or Aluminum Structure/Tower (Canopy Structure is preferable). This Module Support Structure must be heavy-duty, highly resistant, and of the required height as per site requirements, technical drawings, and instructions from the Supervising Engineer. The structure, designed for mounting the solar panels, should conform to BS5950. It must be made from Aluminum or square hollow galvanized steel sections with vandal proofing. The structure supporting the PV module should be anchored to the concrete base and have a weight of 3.02 mt/kg, and to be fixed to the roof by suitable materials whenever needed. The set-up should include complete fittings and be capable of withstanding a wind load of 60m/s and a snow load of 1.4kg/m2. The structure should have a flexible installation angle and come with certifications, tests, and a 10-year warranty. All components must be pre-cut. The contracted company should consider specific racking for the solar PVS installed over the shade (structure), so that that all the panels are at the same level and direction to the south with necessary angle.	Set	1.0
A6	Cable trench: Supply and install suitable Cable trench using PVC pipes and manholes, the price includes all needed accessories and works.	L.S	1.0
A7	Earth system: supply, install and connect an earth for the whole system , contain (3 piece of 25mm dia /150cm length of pure Copper rods) connected by (1x50mm2) Cu wires, all connections should be bandaged by Copper welding or using Cu clamps, then to be connected through the same CU wire to the ground distribution bus bar of MDB, each rod should be buried in the excavated hole of (0.5x2x3)m, then back filled sequence by (coal, salt, bentonite clay) with providing plastic manhole for each rod.	Set	1.0

A8	Anti lightning: Supply, install and connect anti lightning system of type (Early streamer emitter (ESE) ,using suitable 6m GS pole ,including (3 * (16mm-25mm) dia /150cm length of pure Copper rods) connecting by (1x50mm2) Electrolytic Copper Conductor, ,Exothermic welding way should be use. Back filling sequence by (coal, salt), Lightning system is active Type the radius of protection shall cover all the Plant and work must done according to the supervisor engineer's instruction	Set	1.0
A9	Batteries with DC battery protection: Supply and Install Battery with DC battery protection box, Battery backup Lithium type , battery bank voltage is 51.2v, totally 79.2KWH, capacity of each battery is 200Ah. 5000 cycles with 50% DOD and 2 years warranty. battery must be from world well-known brands (BAE) or equivalent and from leading top three manufacturers. Battery must fit with inverter brand; the price includes all necessary materials and work to connect with selected inverter. the price includes batteries dc protection.	each	15
A10	Battery Rack with cooling system	each	3
A11	Thermal Solar Unit for Domestic Hot Water Supply: -Supply and install thermal solar panel unit (full package active-continuous flow type - Glazed) of 500 Liters production storage capacity for hot water supply. The unit consist of Glazed Glass Solar Collector, Boiler of 500 Liters should be equipped with an electrical water heater element of 2000 Watt with a thermostat, Circulation Pump, Operation Control System, Surge Tank with all other electrical & mechanical accessories and plumbing works. The work also includes all plumbing works/pipes by suitable size of PEX-Al-PEX with fittings, thermal insulation materials. The location of the unit should be as per the instructions of the Site Engineer. all necessary fittings and accessories (Tee, Elbow 45/90 degree, valves, etc.) and connecting with electrical source by best-approved wire 3*4mm2 inside tray cable as well as good brand dipole switch plugs 30 amp.	Unit	1
B	CIVIL WORKS		
B1	Casting concrete for Solar panel floor: Supply material, labors, equipment and cast reinforced concrete 150 mm thickness (250 Kg/cm2), for the floor of solar panel the work includes: A. Preparation of the site including removing of existing concrete, grading and levelling the floor. B. Laying a BRC 15x15 cm, 6 mm mesh. C. laying a layer of subbase 150 mm thick, after compaction. D. watering (moisturizing) and compaction of sub-base course layer not less than 95% of MDD and all works should be according to R 6 S.O.R.B and site engineer instructions. E. using the mechanical machine (helicopter) for smoothing the surface concrete. F. Making expansion joints by using the cutter machine every 4m.for both direction G. Having proper slops and ramps to make accessibility for the persons with specific needs (Slope = 1-4%). H. Painting the surface of concrete using Emulsion paint (Turkish best type) by two layer. All the works to be done according to the specifications and instruction of supervising Engineers.	m2	1,580.0
B2	Fence works: Supply and Install chain link fabric Ø3 mm, 50X50 mm steel wire mesh fencing, each panel height shall be 2568mm and width 2700mm with all required accessories including all concrete works for PV Solar and site protection.	mt	20
B3	Gate works: Supply and Install chain link fabric Ø3 mm, 50X50 mm steel wire mesh double swing fence gate with 2200mm height and each swing width 2000mm (in meters) including all concrete works for PV Solar and site protection.	ea	1

B4	Solar Panel Protection System: - Supply material and install/build a structure made of Galvanized iron/Aluminum hollow section square pipe size (40 x 40 x 2.0) mm, 1.5 m C/C (Maximum), fixing on the ground by concrete point foundation with excavation (30 x 30 x 500) cm and the height of the column is 3 m for two-row of panels and 1.5 for one row of panels. The work includes all the required materials and works to make a rigid structure by adding bracing between the columns ..etc., using three lines of vineyard plastic wire as a tension cable, fixed by screws, painting works and then covering the top of the constructed structure by using/installing anti rust steel wire mesh (20 X 20 X 1.5) mm opening at the top of the structure and using three lines of vineyard plastic wire as a tension cable, fixed by screws, with all other necessary works according to instructions of Supervisor Engineer.	m2	1580
B5	Photovoltaic Cleaning Equipment: Supply and install an electric double-head photovoltaic panel cleaning equipment capable of high-efficiency cleaning, with a width of 65cm, facilitating an operational output of 500-750 square meters cleaned per hour per individual. The cleaning equipment should possess the following attributes: • Lightweight and easily portable design for convenient operation. • A water-saving feature, with a consumption of 1.5 to 3 liters per square meter, translating to 9 to 15 tons per MW for cleaning. • Cleaning capacity of 0.8 MW to 1.2 MW per person per day. • Strong adaptability, facilitated by a knapsack lithium battery-powered scrubbing system. • Length of arm > 6 meter The contractor must also provide options for water supply equipment, suitable for a range of environmental conditions, and ensure the equipment can accommodate water pressure of less than 1.3mpa. All products are to be approved by the supervising engineer prior to installation.	L.S	1
B6	in case the Area 1 is not able to accommodate all the Solar PV system, The contracted company should provide necessary manpower and equipment to conduct an analysis of the surface (roof of the shade) upon which the solar energy system will be installed. This analysis should include load assessments such as the weight of panels and racking structure, bearing weight, wind force, etc. If the analysis/redesign confirms the necessity to strengthen the structure for installing the solar PV system over the roof, the contracted company must execute the work as mentioned in the subsequent item (# B7). The final design must be approved by a specialized design bureau or engineering office, as well as by the engineering syndicate.	L.S	1
B7	Should the design in item # B6 necessitate structural strengthening of the shade over the center, the contracted company is obliged to provide necessary materials, manpower, and equipment to perform the work as per the designer's recommendations. The required materials may include iron columns, iron beams, fittings, etc., as detailed and recommended by the design. These materials should be of the highest quality brands and must be approved by the supervising engineer prior to installation. UNHCR reserves the right to cancel this item if it is deemed unnecessary. In such an event, the company will not be eligible for any compensation. in case of implementation, the actual measurements will consider the top area of the work and not the inclined area.	M2	1300

B8	Mobile Scaffold Tower: Supply and install a 4.00m high mobile scaffold tower. The mobile scaffold tower should be lightweight, equipped with four swivel casters for easy relocation, and designed with a one-piece folding frame and working platform for swift setup. It can be extended up to 4m platform height with a 6m reach. The mobile scaffold tower should meet all safety standards. Dimensions: 242 × 81 × 87 cm. The Mobile Scaffold Tower includes: -Four 125mm Scaffold Castors -One 1.90m Scaffold Folding Frame -Two 1.9m Trapdoor Platforms -Nine 1.9m Horizontal Braces -Two 1m Frame Guardrails -One 1.9m Folding Toeboard -Two 2.1m Outriggers -Two 1.3m Ladders with braces -Two 1.9m Diagonal Braces -Two 2.00m Scaffold Extension Frames	UNIT	1
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Lot 3

Solarization (Installation of PV Solar System) in Gawilan Registration Center Gawilan, Bardarash, Duhok Governorate, Iraq

General Note/Guidance

All the work items should be done according to IGTS that complies with ACI-Code 1995 applied according to the instructions of the supervising Engineer.

1. All materials must be NEW from best type, approved by supervising Engineer.
2. All construction materials should be tested according to Construction Works Specification by NCCL (1981 edition)
3. The contractor shall provide samples for all materials to be used in the project prior to using them to get approval from supervising Engineer.
4. It is the duty of the contractor to check the designs for accuracy and adequacy, otherwise the UNHCR will take no risk of the contractor's failure to accomplish the work.
5. The contractor shall provide all required manpower, transportation, equipment, tools, machinery... etc. unless otherwise stated below.
6. In case of any difference between BOQ, designs and/or drawings; the instruction of supervising Engineer will prevail/govern. And In case any components (for any necessary Civil, Mechanical and Electrical Works) required further design and calculation, the contractor needs to provide adequate human resources to prepare the detail design works (full package for rehabilitation and for solarization (installing PV solar system)) with approval from Engineers Union or any certified relevant party.
7. After all works are finished the site must be cleaned from all debris and waste materials must be removed to a dumping site designated by the municipality and disposed in an environmentally friendly manner.
8. Normal site office for the Engineer: Constructing or providing normal working space for Site Engineers, furniture, and office equipment, including consumable materials, stationary. Office in temporary set up will be accepted.
9. The contractor is responsible for fixing any damages or defects happened during the implementation.
10. The Supervising Engineer can ask for a Certificate of Origin & Quality to ensure the quality of the materials will be used in the projects. The Supervising Engineer can ask Lab test to certify quality of materials.
11. Supply Labors, required materials, equipment, tools, machines and skilled labors for installing a Photovoltaic Main/Back-up Solar Power Generator, consisting from Solar Panels, Solar Racks, Smart Invertors, Regulators, Connection Cables, Plugs & Sockets...etc as Main/ Stand-by Power Sources that supply power during the day and according to the below item descriptions/specifications. All the provided below materials should be good and approved quality by supervising Engineer (Certificate of Origin and Quality should be provided)

No	Item Description	Unit	Quantity
	Installing a New PV Solar System		
#1	Installing a New PV Solar System		
#2	The contractor must submit all electrical and civil detailed designs, drawings, diagrams, and laboratory tests before commencing the work.		
#3	The analysis must be done for the surface on which the solar energy system will be installed, in terms of bearing weight, wind force, and the rest of the laboratory tests. In the case that the tests prove that the roof does not comply with the specifications (bearing weight, wind force), the contractor must submit a complete plan for laboratory tests, designs, drawings to support the roof.		
A	General Descriptions/Guidelines:- Provide the required materials, equipment, tools, machines, and skilled labors for Providing and installing a Photovoltaic Solar System, Hybrid ON-Off-Grid Complete Set of Total Production Capacity = 300 Kwp, Inverter Rated Nominal /Min.Power 250 Kwe, Overload 200% during 60sec, Protection Class IP20/IP54, Built-in MPPT, Built-in Fuse Box, Monitoring with GPRS module and Automatic transfer switch) consisting from Solar Panels, Solar PV panel Support Structure, Smart Solar Inverter for the whole components of		

	the system, DC Connection Cables, MC-4 DC connectors and AC cable...etc. As Main Power Sources that supply the required power during the daytime for all electrical components according to the below item descriptions/specifications. All the provided below materials should be of Country Origin of approved quality by Supervisor Engineer (Certificate of Origin and Quality should be provided). The System should be daytime work from solar energy and at night work from the national grid/diesel generator. The contractor should prepare a detailed Design Works by an authorized Consultant Expertise Engineer with all details for the required PV Solar Unit (Full Package, includes all Electrical with earthing & anti lighting/all protection system, Mechanical and Civil Works) and for all other related works according to the above-mentioned requested descriptions, existing site requirements and under supervision & approvals of the UNHCR Engineer.		
A1	PV Solar Panels :- Provide, install, test and commission the required numbers (Set) of New PV Solar Panels which should have the following specifications (Minimum): - Heterojunction HJT, N-Type, Half-Cut-Cell, 12 or 9 Busbar (MBB), Bifacial (preferable), Mono Crystalline, must be from one of the world well-known brands/from one of the leading top ten PV solar panel manufacturers, good frame thickness, the module conversion efficiency of Min. 21%, No/low LID and PID. Product Warranty of 12 years and Power Warranty of 25 years with lowest and minimum degradation. PV module production capacity (Minimum =500 Wp, Total production minimum300 Kwp), internationally certified by TUV Rhineland to ISO, BS and UV standards with required certificates, Max. Wind/Snow Load 2400 / 5400 Pa, Junction Box 67 / 68 IP, Front / Back Glass 2.0 mm Anti-reflet coating semi-tempered glass, low iron, Frame Anodized aluminum alloy, Junction Box IP68, 3 diodes - MC4 Compatible, Output Cables* 4.0 mm², 350 mm - 1200 mm(cable should be suitable for leapfrog connection, including foundation, structures and accessories, all other/related required works. Note: - The number of Solar Panels depends on each panel's outputs but the total production capacity (Peak) of the new solar unit/system should not be less than 300,000 Watts and the Contractor is responsible for the proper design of the number of panels and strings to meet the existing system requirements.	LS (complete set)	1.0
A2	Combiner Box: Supply and install a PV panel combiner connection box, complete with an earthing and surge suppressor system. The earthing system should be tested and maintain a resistance of less than 5 Ohms. The price also includes a Parallelized Busbar box, which is a DC busbar distributor system furnished with DC fuses and a fuse holder designed to distribute overcurrent-protected power to all high amperage DC devices, thereby ensuring protection for all connections.	Unit	20.0

A3	Inverter: Supply and install hybrid solar inverters/charger of power 250 KW (minimum) AC 220V/380 V pure sine wave from a manufacturer such as (SCHNEIDER, SMA, Fronius, Victron or equivalent) or from well-known origin. The inverter should meet the following specifications: - Minimum 5 years warranty - Inverter must run in split phase and three phase - Anti-islanding capability (safety and protection) - The inverter should have zero second transfer time when the power sources change. - The inverter should have two ac inputs for grid & dg. - The inverter should have (2 separate ac outputs) for essential and non-essential load - Operating temperature -30 to +65 degrees - Protection category min ip 20 - -safety standards (en-iec 60335-1, en-iec 60335-2-29, en-iec 62109-1) or any other equivalent international certification the inverter should have with ac bypass input function. Note: - The number of inverters depends on each inverter's outputs but the total production capacity (Peak) of the inverter unit/system should not be less than 250,000 Watts and the Contractor is responsible for the proper design of the number of inverters and strings to meet the existing system requirements. The contractor also shall provide the certificate of origin and quality certificates of the products used in the project. All products shall be approved by the supervising engineer prior to the installation. Smart Inverter: Control and Monitoring: Supply and install a monitoring and data viewing LCD control panel, built into the inverter or external, from manufacturers such as (SCHNEIDER, SMA, Fronius, Victron or equivalent) or from well-known origin. This panel should offer an online portal for wireless monitoring, configuration, and data storage through an internet connection. The control unit must have the capability to control all system items. MPPT Smart Solar Charger: Supply and install an MPPT (Maximum Power Point Tracking) smart solar charger, either built into the inverter or standalone units (10 pieces). (SCHNEIDER, SMA, Fronius, Victron or equivalent) or from well-known origin. The contractor must also provide the certificate of origin and quality certificates for the products used in the project. All products are to be approved by the supervising engineer prior to installation.	SET	1
A4	Cables and Accessories: Supply and install the following: -AC and DC MCCBs (Molded Case Circuit Breakers) -MC4 connectors for the entire project -All required types and sizes of AC and DC electrical cables, complete with all connections. -The work also includes upgrading/adapting the existing (if required) wiring/cables of the existing buildings. These include connections between solar panels, the combiner box, inverter, and terminal electrical boxes, as well as those that come and go from the main source and solar system, AC changeovers and circuit breakers.	Set	1.0

A5	Racking for Panels: Supply and install a Galvanized Steel or Aluminum Structure/Tower (Canopy Structure is preferable). This Module Support Structure must be heavy-duty, highly resistant, and of the required height as per site requirements, technical drawings, and instructions from the Supervising Engineer. The structure, designed for mounting the solar panels, should conform to BS5950. It must be made from Aluminum or square hollow galvanized steel sections with vandal proofing. The structure supporting the PV module should be anchored to the concrete base and have a weight of 3.02 mt/kg, and to be fixed to the roof by suitable materials whenever needed. The set-up should include complete fittings and be capable of withstanding a wind load of 60m/s and a snow load of 1.4kg/m². The structure should have a flexible installation angle and come with certifications, tests, and a 10-year warranty. All components must be pre-cut. The contracted company should consider specific racking for the solar PVS installed over the shade (structure), so that that all the panels are at the same level and direction to the south with necessary angle.	Set	1.0
A6	Cable trench: Supply and install suitable Cable trench using PVC pipes and manholes, the price includes all needed accessories and works	L.S	1.0
A7	Earth system: supply, install and connect an earth for the whole system , contain (3 piece of 25mm dia /150cm length of pure Copper rods) connected by (1x50mm²) Cu wires, all connections should be bandaged by Copper welding or using Cu clamps, then to be connected through the same CU wire to the ground distribution bus bar of MDB, each rod should be buried in the excavated hole of (0.5x2x3)m, then back filled sequence by (coal, salt, bentonite clay) with providing plastic manhole for each rod .	Set	1.0
A8	Anti lightning : Supply, install and connect anti lightning system of type (Early streamer emitter (ESE) ,using suitable 6m GS pole ,including (3 * (16mm-25mm) dia /150cm length of pure Copper rods) connecting by (1x50mm²) Electrolytic Copper Conductor, ,Exothermic welding way should be use. Back filling sequence by (coal, salt), Lightning system is active Type the radius of protection shall cover all the Plant and work must done according to the supervisor engineer's instruction	Set	1.0
A9	Batteries with DC battery protection: Supply and Install Battery with DC battery protection box, Battery backup Lithium type, battery bank voltage is 51.1v, totally 79.2KWH, capacity of each battery is 200Ah. 5000 cycles with 50% DOD and 2 years warranty. battery must be from world well-known brands (BAE) or equivalent and from leading top three manufacturers. Battery must fit with inverter brand; the price includes all necessary materials and work to connect with selected inverter.	each	15
A10	Battery Rack with cooling system	each	3
A11	Thermal Solar Unit for Domestic Hot Water Supply: -Supply and install thermal solar panel unit (full package active-continuous flow type - Glazed) of 500 Liters production storage capacity for hot water supply. The unit consist of Glazed Glass Solar Collector, Boiler of 500 Liters should be equipped with an electrical water heater element of 2000 Watt with a thermostat, Circulation Pump, Operation Control System, Surge Tank with all other electrical & mechanical accessories and plumbing works. The work also includes all plumbing works/pipes by suitable size of PEX-Al-PEX with fittings, thermal insulation materials. The location of the unit should be as per the instructions of the Site Engineer. all necessary fittings and accessories (Tee, Elbow 45/90 degree, valves, etc.) and connecting with electrical source by best-approved wire 3*4mm ² inside trey cable as well as good brand dipole switch plugs 30 amp.	Unit	1

B	CIVIL WORKS		
B1	Casting concrete for Solar panel floor: Supply material, labors,equipment and cast reinforced concrete 150 mm thickness (2550*0.0 Kg/cm2), for the floor of solar panel the work includes: A. Preparation of the site including removing of existing concrete, grading and levelling the floor. B. Laying a BRC 15x15 cm, 6 mm mesh. C. laying a layer of subbase 150 mm thick, after compaction. D. watering (moisturizing) and compaction of sub-base course layer not less than 95% of MDD and all works should be according to R 6 S.O.R.B and site engineer instructions. E. using the mechanical machine (helicopter) for smoothing the surface concrete. F. Making expansion joints by using the cutter machine every 4m.for both direction G. Having proper slops and ramps to make accessibility for the persons with specific needs (Slope = 1-4%). H. Painting the surface of concrete using Emulsion paint (Turkish best type) by two layer. All the works to be done according to the specifications and instruction of supervising Engineers.	m2	1,500.0
B2	Fence works: Supply and Install chain link fabric Ø3 mm, 50X50 mm steel wire mesh fencing, each panel height shall be 2568mm and width 2700mm with all required accessories including all concrete works for PV Solar and site protection.	mt	120
B3	Gate works: Supply and Install chain link fabric Ø3 mm, 50X50 mm steel wire mesh double swing fence gate with 2200mm height and each swing width 2000mm (in meters) including all concrete works for PV Solar and site protection.	ea	1
B4	Solar Panel Protection System: - Supply material and Install/build a structure made of Galvanized iron/Aluminum hollow section square pipe size (40 x 40 x 2.0) mm, 1.5 m C/C (Maximum), fixing on the ground by concrete point foundation with excavation (30 x 30 x 500) cm and the height of the column is 3 m for two-row of panels and 1.5 for one row of panels. The work includes all the required materials and works to make a rigid structure by adding bracing between the columns ..etc., using three lines of vineyard plastic wire as a tension cable, fixed by screws, painting works and then covering the top of the constructed structure by using/installing anti rust steel wire mesh (20 X 20 X 1.5) mm opening at the top of the structure and using three lines of vineyard plastic wire as a tension cable, fixed by screws, with all other necessary works according to instructions of Supervisor Engineer.	m2	1500
B5	The company is required to provide the necessary human resources, materials, and equipment to conduct assessments/surveys and develop a design for the canopy/shade structure intended to support the solar PV system. This structure will be situated over the parking area and other identified locations for the solar system. While developing the design, the company must consider the minimum specifications mentioned in the upcoming item and account for the mobility of visitors and vehicles. the design and technical specifications should be developed by a structural designer, approved/certified, and is subject to the approval of UNHCR.		

	Photovoltaic Cleaning Equipment: Supply and install an electric double-head photovoltaic panel cleaning equipment capable of high-efficiency cleaning, with a width of 65cm, facilitating an operational output of 500-750 square meters cleaned per hour per individual. The cleaning equipment should possess the following attributes: • Lightweight and easily portable design for convenient operation. • A water-saving feature, with a consumption of 1.5 to 3 liters per square meter, translating to 9 to 15 tons per MW for cleaning. • Cleaning capacity of 0.8 MW to 1.2 MW per person per day. • Strong adaptability, facilitated by a knapsack lithium battery-powered scrubbing system. • Length of arm > 6 meter The contractor must also provide options for water supply equipment, suitable for a range of environmental conditions, and ensure the equipment can accommodate water pressure of less than 1.3mpa. All products are to be approved by the supervising engineer prior to installation.	L.S	1
B6	The contracted company should provide necessary manpower and equipment to conduct an analysis of the surface (existing roof of the shade in the center) upon which the solar energy system will be installed. This analysis should include load assessments such as the weight of panels and racking structure, bearing weight, wind force, etc. If the analysis/redesign confirms the necessity to strengthen the structure for installing the solar PV system over the roof, the contracted company must execute the work as mentioned in the subsequent item (# B7). The final design must be approved by a specialized design bureau or engineering office, as well as by the engineering syndicate.	L.S	1
B7	Should the design in item # B6 necessitate structural strengthening of the shade over the center, the contracted company is obliged to provide necessary materials, manpower, and equipment to perform the work as per the designer's recommendations. The required materials may include iron columns, iron beams, fittings, etc., as detailed and recommended by the design. These materials should be of the highest quality brands and must be approved by the supervising engineer prior to installation. UNHCR reserves the right to cancel this item if it is deemed unnecessary. In such an event, the company will not be eligible for any compensation. in case of implementation, the actual measurements will consider the top area of the work and not the inclined area.	M2	800
B8	Mobile Scaffold Tower: Supply and install a 4.00m high mobile scaffold tower. The mobile scaffold tower should be lightweight, equipped with four swivel casters for easy relocation, and designed with a one-piece folding frame and working platform for swift setup. It can be extended up to 4m platform height with a 6m reach. The mobile scaffold tower should meet all safety standards. Dimensions: 242 × 81 × 87 cm. The Mobile Scaffold Tower includes: -Four 125mm Scaffold Castors -One 1.90m Scaffold Folding Frame -Two 1.9m Trapdoor Platforms -Nine 1.9m Horizontal Braces -Two 1m Frame Guardrails -One 1.9m Folding Toeboard -Two 2.1m Outriggers -Two 1.3m Ladders with braces -Two 1.9m Diagonal Braces -Two 2.00m Scaffold Extension Frames	UNIT	1

Annex D: Detailed Technical Evaluation Criteria

Mandatory Pre-qualification			
Main Criteria	Sub-Criteria	Specific Requirements	(Yes/NO)
Mandatory Pre-qualification	Mandatory Site Visit	Did the vendor send an engineer to visit the site on the said date and time and sign their company's name on the attendance sheet?? <u>(The Engineer should bring an authorization letter from the company and show their engineering union ID card)</u>	
	Mandatory Bid Security	Has the bidder submitted a scanned copy of Bid Security of USD 10,000 by "Good for Payment Cheque/Certified Cheque" made out in the name of UNHCR covering the offer's validity (180 days after the closing date of the bid)? It should be a certified cheque (not personal). <u>The cheque should indicate the RFP number and be issued under the company name.</u> The selected company would be required to submit the original cheque.	
	Valid Business Registration Certificate	Is the company registered as <u>an electrical/ renewable energy/ general contracting company</u> in IRAQ (Federal Government or Kurdistan Region)? <u>For a Joint Venture, the companies should submit a legal JV contract endorsed by the government with a statement outlining the duties and responsibilities of each party otherwise, the joint venture will not be accepted.</u> <u>Any company with an age less than 3 years at the time of the submission will be disqualified.</u>	
	Valid Business Registration Certificate	Has the bidder submitted a scanned copy of a <u>valid Tax registration certificate?</u>	
	Acknowledgment of Annex - O	Has the bidder submitted a duly signed/stamped <u>Checklist?</u>	

The Bidders must meet all the above mandatory pre-qualification criteria for their proposal to be considered for further evaluation.

Stage 2: Technical Evaluation

The percentage distribution of 60% of the total score has been allocated to the Technical Proposal. Maximum scores are listed in the table below. Failure to achieve a minimum score of **60%** out of the 60 points will result in technical non-compliance and elimination from further evaluation.

Technical Evaluation Criteria:

Technical Evaluation			
Percentage distribution of 60% of the total score of technical evaluation has been allocated to Technical Proposal. Maximum scores are listed in the table below. Failure to achieve a minimum score of 36 points out of the 60 points will result in technical non-compliance and elimination from further evaluation.			
Main Criteria	Sub-Criteria	Specific Requirements	Score
General Company	Company profile and Capability.	The company has ISO 9001 certification or equivalent recognized certifications. <u>(1 Point)</u>	1

Qualification & experience			From 3 to 5 years (1 point)	2
		Company age from the registration date (min 3 years).	More than 5 years (2 points)	
	Company classification	The company has a valid electrical/ renewable energy/ general contracting company classification ID issued by the Ministry of Planning (Central Government and/or KRI), classified range between 1-5 classes.	Classification from 1-3 (2 Points)	2
			Classification 4-5 (1 point)	
	Staff qualifications, CVs with min 5 years of experience and Resources	Project Manager (site engineer) with a bachelor's academic degree in electrical/ renewable energy engineering (minimum of 5 years of experience) with proof of graduation like (Graduation certificate, syndicate ID, Union ID) (3 Points)		3
		Civil Engineer (bachelor's degree) with a minimum of 5 years' experience with proof of graduation (Graduation certificate, syndicate ID, Union ID) (3 Points)		3
		Surveyor (diploma in Surveying) with a minimum of 3 years of experience. (1 Point)		1
	Financial Auditing report	The latest 2 consecutive years, financial audit reports for the years (2020-2021-2022). The audit financial reports (including the Balance Sheet) must be certified by the Iraqi Association of Accountants. Minimum cumulative turnover of USD (300,000). <u>If the baseline turnover is not demonstrated, the bidder will receive zero points.</u>		2
		Did the vendor submit the latest 2 consecutive years' financial audit reports? Yes	(2 Points)	
		Did the vendor submit the latest 2 consecutive years' financial audit reports? No	(0 Points)	
Total score 14 points				
Relevant Experiences	Proof of relevant experience	Copies of Purchase Orders (POs), contract agreements, or work orders attached <u>with proof of project completion certificate/ performance letter issued by the client (Showing value, time completed, organization or firm for which completed, contact details of the organizations) awarded and served within the past 10 years.</u> The actual copies of POs, contracts, or work orders should relate to similar projects (this includes Electrical infrastructure and renewable energy infrastructure)		5
		- 5 (and above) Projects = 5 Points - 4 Projects = 4 Points - 3 Projects = 3 Points - 2 Projects = 2 Points - 1 Projects = 1 Point - No project = 0 Points Note: The evaluation will not consider a PO or contract with a value below USD 150,000.		
	Past experience with clients	List of similar projects showing (project name, client name, project cost, reference contact (phone No. or email)). UNHCR will conduct a reference check per project to be considered. - 3 or more different clients (3 Points) - 2 different clients (2 Points) - 1 client (1 Point) - No list (0 Points)		3

Total score 8 points				
Technical Specifications of Works	Construction & Finishing Materials	Catalogues or Datasheet Confirming that the specification of the below items complies with the BoQ:		
		Fence and gate: chain link fabric (3 points)		3
		Steel Structure for PVs (2 points)		2
		Solar Panel Protection System (2 points)		2
		Photovoltaic Cleaning Equipment (2 points).		2
	Electrical - Renewable Energy Materials	Electrical - Renewable Energy Materials Catalogs or pictures/ Data sheet confirming that the specification of the below items complies with the BoQ:		
		PV Solar Panel - Class, Efficiency, performance (4 points) Class. Outputs. Specifications. characteristics, efficiency, manufacturer, and bypass diodes. Current and voltage ratings. Quality		4
		PV Solar Panel - Warranties (3 points) Performance degradation <12% in 30 yrs. Product warranty of 12 years. Power Warranty of 25 years. Terms of warranty.		3
		Support / Racking Structures (3 points)		3
		Inverters (250 KW) (3 points) Specifications according to BoQ. Performance. Manufacturer. Enclosures. Cooling Remote monitoring. Weather station. Foundations. Metering and controls.		3
		Combiner box (3 points) Performance. Size. Standardization. Sealing. Manufacturer. Mounting. Foundations. Components.		3
		Cables and Accessories (2 points)		2
		Batteries with DC battery protection (3 points)		3
30 points (Min. Passing point is 20 Points)				
Work Plan & Method of Implementation	Works plan Detailed and realistic work plan with Work Schedule/ Gantt Chart showing the starting and end of each activity	- Implement realistic timelines as indicated in the Scope of work (240) days. Including a Gantt Chart indicating a detailed sequence of activities. (3 Points).		3
		Incomplete Gantt chart, no Gantt Chart or Proposed Gantt chart (more than 36 days) of the indicated duration in (SoW) or Project Schedule not indicating a detailed sequence of activities (0 Point).		
	Method of implementation	Submission of the minimum equipment list, which should comprise 1 Truck, 1 Grader, 1 Excavator, 1 Pickup, 1 Loader, 1 Compactor, and 1 Concrete Mixture Machine, 1 crane	Full list (2 Points).	2
			Partial list (1 point)	
		The logistics plan includes access to the site and material delivery with the needed workforce. (1 Point)		1
		Environmental Impact Assessment Plan. (1 Point)		1
		Risk mitigation plan and insurance to ensure all risks are covered (1 Point).		1
	Total score 8 points			
Total Score for Technical Evaluation 60				

Annex E: Technical Proposal Form

The Bidder must provide sufficient information in the proposal to demonstrate compliance with the requirement set out in each section of this Request for Proposal. This **PROPOSAL FORM** must be completed, signed, and returned to UNHCR. Proposal must be made in accordance with the instructions contained in this Request for Proposal.

TERMS AND CONDITIONS OF CONTRACT

Any contract resulting from this RFP shall be subject to **Annex G: General conditions of Contracts for the provision of Good and Services (July 2018) & Annex G: UNHCR General Conditions of Contracts for Civil works (October 2000) AND Annex I: UN Suppliers Code of Conduct.**

D-1 DECLARATION

The undersigned, having read the Instruction to Bidder, and the **Annex G: General conditions of Contracts for the provision of Good & Services (July 2018) AND Annex G: UNHCR General Conditions of Contracts for Civil works (October 2000) AND Annex H: UN Suppliers Code of Conduct** as set out in the attached document, hereby offers to supply the services specified in the BOQ at the price or prices quoted in **Annex A: Scope of Work (SOW) & Annex B: Bill of Quantities.**

The undersigned understands that UNHCR reserves the right to accept the whole or part of your bid or allow split or partial awards on this project. It is however important to note that the construction project cannot be split unless the various components are defined by LOT. All other projects are to be awarded on an “all or nothing basis”.

D-2 AWARD AND BANK GUARANTEE:

The Firm that submitted the successful Proposal will be notified by letter of the award prior to the expiration of the validity period. The letter, referred to as the “Letter of Award” will state the sum of the fees to be paid to the Firm for the services rendered and will indicate the terms under which the Contract must be finalized.

The Contract must be signed within 14 days of the issue of the Letter of Acceptance. The successful bidder will be required to furnish us with 10% Bank Guarantee of the contract sum from a reputable bank in the next 7 days, valid for the entire period of the contract works.

Name of authorized representative: _____

Title: _____

Signature: _____

Date: _____

Supplier Name: _____

Postal Address: _____

Telephone No.: _____

Email Address: _____

D-3 BIDDER GENERAL INFORMATION

Bidder General Information		
Description	Information (to be filled by the Bidder)	Remarks
Registration Type (Company / Contractor etc.)	E.g. an electrical/ renewable energy/ general contracting company	
Registration number		

If multi location company, specify headquarters location		
Grading/Classification if any applicable to the type of registration you company has.	Provide certified copies	
Number of similar and successfully completed projects;	Provide a list and copies of contracts / POs with certificate of completion	
Number of similar projects currently underway;	Provide a list and copies of contracts / POs	
Total number of clients previous and current	Provide a list	
Specialty		
Expiry Date of Certifications and/or Grading		<i>Provide certified copies</i>
Legal Status	e.g. Limited Company / Public limited Company etc	<i>Provide certified copies of Registration</i>
VAT Registration Number	(If applicable)	

D-4 STAFF QUALIFICATION AND EXPERIENCE:

Qualifications and experience of key management and technical personnel proposed for this Project. Signed CVs of all proposed staff must accompany the submission and it should be noted that substitution of staff during Project implementation shall be subject to the approval of UNHCR. A detailed organization chart of the company including the location and staffing of existing offices must also be attached to the offer.

Construction Project Management Staff		
A. Key Professionals		
Name	Position	Task
B. Support Staff		
Name	Position	Task

The CVs of all staff listed above must be provided and a reference to the page number must be made for each staff cv in the technical proposal.

D-5 FINANCIAL INFORMATION:

Annual Turn-over Information (Last Two Years)		
Year	Turn-over in USD	Remarks
2020		
2021		
2022		

D-6 Financial Statement Analysis

S No.	Description of Financial Info.	Value	Reference Page No. Tec Proposal
Current Ration			
1	Current assets		

2	Current liabilities		
Debt Ratio as a Percentage			
3	Total Debt		
4	Total Assets		

D-7 WORKS IN HAND (Ongoing Projects)

Works in Hand				
Employer name & contact details	Description of Works/Services	Start date	End date	Amount
Total USD				

Make a reference to page number in your technical proposal for the corresponding documents (1. Contract / PO 2. Date of Project Site Handover. All documents must be provided in your technical proposal.

D-8 CONSTRUCTION EXPERIENCE IN LAST FIVE YEARS

Construction Experience in last ten years				
Year	Employer name & contact details	Description of Works/Services	Amount	
Total USD:				

Make a reference to page number in your technical proposal for the corresponding documents (1. Contract / PO 2. Date of Project Site Handover 3. Substantial Completion Certificate) All documents must be provided in your technical proposal.

D-9 INFORMATION ON ANY CURRENT LITIGATION IN WHICH THE FIRM(S) IS INVOLVED.

Other Party(ies)	Cause of Dispute	Amount Involved

D-10 PROPOSED WORK PLAN AND SCHEDULE OF ACTIVITIES

The proposed work plan and schedule of activities must be submitted with this Proposal. The work plan and schedule should be prepared in detail to the extent possible and include time allocated.

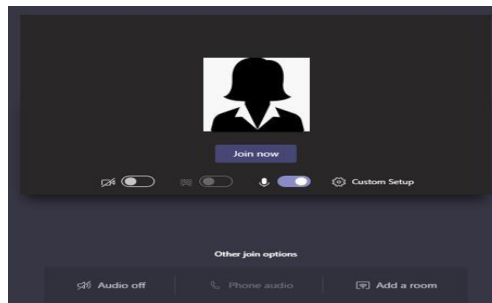
A proposed timeline in a Gantt / Bar chart format must be part of this Proposal. It should start with establishing Minimum Requirements till the Issuance of the Substantial Completion Certificate.

Annex K

Join a meeting without a Teams account



1. Go to the meeting invite and select **Join Microsoft Teams Meeting**.
2. That'll open a webpage, where you'll see two choices: **Download the Windows app** and **Join on the web instead**. If you join on the web, you can use either Microsoft Edge or Google Chrome. Your browser may ask if it's OK for Teams to use your mic and camera. Be sure to allow it so you'll be seen and heard in your meeting.
3. Enter your name and choose your audio and video settings. If the meeting room (or another device that's connected to the meeting) is nearby, choose **Audio off** to avoid disrupting. Select **Phone audio** if you want to listen to the meeting on your mobile phone.
4. When you're ready, hit **Join now**.
5. This will bring you into the **lobby**. We'll notify the meeting organizer that you're there, and someone in the meeting can then admit you.



ANNEX M: TENTATIVE CALENDAR OF ACTIVITIES:

Calendar of Activities			
S/No:	Action Description	Date	
		From	To
1	Tender available to vendors (<i>Tender opening and closing dates</i>)	04/09/2023	25/09/2023
2	Closing date for Queries	13/09/2023	13/09/2023
3	Site Visit (<i>if applicable</i>)	11-12/09/2023	11-12/09/2023
4	Pre-bid conference Meeting	13/09/2023	13/09/2023
5	Tender Closing date	25/09/2023	25/09/2023
6	Bid opening Date	26/09/2023	26/09/2023
7	Technical Evaluation	27/09/2023	10/10/2023
8	Financial Evaluation	11/10/2023	12/10/2023
9	Approval of Contract	15/10/2023	25/10/2023

ANNEX N: BID DATA SHEET

THE FOLLOWING SPECIFIC DATA FOR THE SERVICES TO BE PROCURED SHALL COMPLEMENT, SUPPLEMENT OR AMEND THE PROVISION IN THE INSTRUCTIONS TO BIDDERS. WHENEVER THERE IS A CONFLICT, THE PROVISION HEREIN SHALL PREVAIL.

DEADLINE FOR SUBMISSION OF BIDS	25/10/2023 at 23:59 HRS Iraq Local Time	
SUBMISSION OF BIDS:	Please submit your proposal through an online eTenderBox Tool, which can be accessed at http://etenderbox.unhcr.org	Installation of Solar Energy System for UNHCR Registration Centers, Derabon, Domiz 1, Gawilan, Duhok Governorate, Iraq, for UNHCR Iraq Operation 3 Lots.
LATE SUBMISSION OF OFFERS:	OFFERS SHOULD BE SUBMITTED IN GOOD TIME TO BE RECEIVED BY CLOSING DATE AND TIME. IMPORTANT NOTE: BIDS RECEIVED AFTER THE DEADLINE FOR SUBMISSION OF BIDS AND BIDS TRANSMITTED IN ANY OTHER MANNER THAN THOSE INDICATED ABOVE WILL NOT BE CONSIDERED.	
BID VALIDITY PERIOD:	180 DAYS	
PRICE VALIDITY PERIOD:	Entire Period of the Project Duration	
DEFECT LIABILITY:	A MINIMUM OF 6 MONTH DEFECT LIABILITY APPLY	
TERMS OF REFERENCE:	ALTERNATIVES TERMS OF REFERENCE SHALL NOT BE CONSIDERED	
DELIVERY SCHEDULE:	SET UP TIME: IN DAYS: 240 DELIVERY TIME: IN DAYS: 240	
RETENTION MONEY:	Please note that a 10% of the total contract value will be kept as retention money for period of Six Months from the completion and handover of the site against defects and liabilities.	
RELEASE OF PERFORMANCE BOND OR BANK GUARANTEE	The performance bond or bank guarantee will be released upon the 100% completion of the works and upon the issuance of Substantial Completion of Works Certification by the UNHCR Project Manager/Engineer.	
LIQUIDATED DAMAGES	The resulting contract from this tendering exercise MAY BE subject to the application of liquidated damages at the sole discretion of UNHCR and if deemed necessary. In accordance with article 2.11 of the tender document.	
SUBCONTRACTING	UNHCR WILL HAVE TO APPROVE ANY SUBCONTRACTOR THAT THE CONTRACTOR INTENDS	

	TO USE FOR THE EXECUTION.
LANGUAGE OF THE BID:	ENGLISH
REQUESTS FOR ADDITIONAL INFORMATION:	BIDDERS ARE REQUIRED TO SUBMIT ALL THEIR QUERIES IN RESPECT OF THIS REQUEST FOR PROPOSAL TO BID BY E-MAIL TO: IRQDUTND@unhcr.org, CC: SAADIS@unhcr.org BEFORE 23:59 HRS Iraq Local Time on 13/09/2023. (CUT-OFF DATE FOR QUERIES). UNCHR MAY, AT ITS DISCRETION, COPY ANY REPLY TO A PARTICULAR QUESTION TO ALL OTHER INVITED / PARTICIPATING BIDDERS.
BID EVALUATION CRITERIA:	BIDS WILL BE EVALUATED BASED ON THE TECHNICAL EVALUATION CRITERIA prescribed in article <u>"2.5.2 Technical and Financial evaluation"</u>

ANNEX O: SUBMISSION CHECKLIST

Submission Checklist		
S. No.	Description	Status
1	I have read and understood the RFP and all its annexes	
2	Annex A: Annex A: Scope of Work (SOW)	
3	Annex B: Bill of Quantities Completed and Submitted	
4	Annex E: Technical Proposal Form - Completed and Submitted	
5	Annex F: Vendor Registration Form - Completed and Submitted	
6	Annex G: General conditions of Contracts for the provision of Good and Services (July 2018) - Signed and Stamped	
7	Annex H: UNHCR General Conditions of Contracts for Civil works (October 2000) Signed and Stamped or else	
8	Annex I: UN Supplier's Code of Conduct - Signed and Stamped	
9	Annex L: Financial Offer Form (Filled Signed and Stamped in PDF)	

Name of authorized representative: _____

Title: _____

Signature: _____

Date: _____

Supplier Name: _____

Postal Address: _____

Telephone No.: _____

Email Address: _____

Company's Stamp: _____