

INVITATION TO BID

Solarization of Seven (7) Drinking Water Pumping Stations in Kandahar

ITB No.: UNDP/AFG/ITB/2021/0000011207

Project: Area-Based Approach to Development Emergency Initiatives (ABADEI)

Country: Afghanistan

Issued on: 13 December 2021

Contents

Section '	1. Let	ter of Invitation	4
		truction to Bidders	
		AL PROVISIONS	
	1.	Introduction	
	2.	Fraud & Corruption, Gifts and Hospitality	
	3.	Eligibility	
	4.	Conflict of Interests	
В	3. P	PREPARATION OF BIDS	7
	5.	General Considerations	7
	6.	Cost of Preparation of Bid	8
	7.	Language	8
	8.	Documents Comprising the Bid	8
	9.	Documents Establishing the Eligibility and Qualifications of the Bidder	8
	10.	Technical Bid Format and Content	8
	11.	Price Schedule	9
	12.	Bid Security	9
	13.	Currencies	9
	14.	Joint Venture, Consortium or Association	10
	15.	Only One Bid	10
	16.	Bid Validity Period	11
	17.	Extension of Bid Validity Period	11
	18.	Clarification of Bid (from the Bidders)	11
	19.	Amendment of Bids	11
	20.	Alternative Bids	11
	21.	Pre-Bid Conference/Site visit	12
C	:. s	UBMISSION AND OPENING OF BIDS	12
	22.	Submission	12
	Har	d copy (manual) submission	12
	Em	ail and eTendering submissions	13
	23.	Deadline for Submission of Bids and Late Bids	13
	24.	Withdrawal, Substitution, and Modification of Bids	13
	25.	Bid Opening	14
0). E	VALUATION OF BIDS	14
	26.	Confidentiality	14
	27.	Evaluation of Bids	14
	28.	Preliminary Examination	14

	29.	Evaluation of Eligibility and Qualification	14
	30.	Evaluation of Technical Bid and prices	15
	31.	Due diligence	15
	32.	Clarification of Bids	15
	33.	Responsiveness of Bid	15
	34.	Nonconformities, Reparable Errors and Omissions	16
	E. <i>A</i>	WARD OF CONTRACT	16
	35.	Right to Accept, Reject, Any or All Bids	16
	36.	Award Criteria	16
	37.	Debriefing	16
	38.	Right to Vary Requirements at the Time of Award	17
	39.	Contract Signature	17
	40.	Contract Type and General Terms and Conditions	17
	41.	Performance Security	17
	42.	Bank Guarantee for Advanced Payment	17
	43.	Liquidated Damages	17
	44.	Payment Provisions	17
	45.	Vendor Protest	18
	46.	Other Provisions	18
Sectio	on 3. Bio	l Data Sheet	19
Sectio	on 4. Eva	aluation Criteria	23
Section	on 5a: To	echnical Specifications/Bill of Quantities	30
Prean	nble		30
Pricin	a		30
	_	stoms Duties	
		surement	
•		he Bill Of Quantities	
Sectio		turnable Bidding Forms / Checklist	
		: Bid Submission Form	
	Form B	: Bidder Information Form	35
	FOI	RM C: Joint Venture/Consortium/Association Information Form	38
		RM D: Eligibility and Qualification Form	
		RM E: Format of Technical Bid	
		RM F: Bill of Quantities	
	FORM	G: Form of Bid Security	55
	FOI	RM H: Form for Performance Security (for the successful Bidder only, to be submitted after the Award)	56

Section 1. Letter of Invitation

The United Nations Development Programme (UNDP) hereby invites you to submit a Bid to this Invitation to Bid (ITB) for the above-referenced subject.

This ITB includes the following documents and the General Terms and Conditions of Contract for Works which is inserted in the Bid Data Sheet:

Section 1: This Letter of Invitation Section 2: Instruction to Bidders Section 3: Bid Data Sheet (BDS) Section 4: Evaluation Criteria

Section 5: Schedule of Requirements and Technical Specifications

Section 6: Returnable Bidding Forms

- o Form A: Bid Submission Form
- o Form B: Bidder Information Form
- o Form C: Joint Venture/Consortium/Association Information Form
- Form D: Qualification Form
- o Form E: Format of Technical Bid
- Form F: Price Schedule
- Form G: Form of Bid Security
- Bill of Quantities
- o Safety Health and Welfare of Construction Sites- Manual

If you are interested in submitting a Bid in response to this ITB, please prepare your offer comprising of all required documents should be submitted in accordance with Section 3, through the UNDP ATLAS E-Tendering system, which can be accessed at https://etendering.partneragencies.org.

Please acknowledge receipt of this ITB directly online in the e-tendering system through the following link: https://etendering.partneragencies.org using your username and password.

You may also utilize the "Accept Invitation" function in eTendering system. This will enable you to receive amendments or updates to the ITB. Should you require further clarifications, kindly communicate with the contact person/s identified in the attached Data Sheet as the focal point for queries on this ITB.

If you have not registered in the system before, you can register now by logging in using the below username and password, and follow the registration steps as specified in the system user guide in https://www.undp.org/content/undp/en/home/operations/procurement/business/procurement - notices/resources/

Username: event.guest **Password:** why2change

Event ID: 11207 Business Unit: AFG10

No hard copy or email submissions will be accepted by UNDP:

The step by step instructions for registration of bidders and quotation/proposal submission through the UNDP ATLAS E-Tendering system is available in the instructions manual for the bidders, attached with this ITB.

The proposers are advised to use Internet Explorer (Version 10 or above) browser to avoid any compatibility issues with the E-Tendering system.

Please refer to E-Tendering system for closing date of this ITB.

Kindly go through this invitation letter and other documents attached here to this ITB. Should you have any question or require any clarification, please feel free to send an email to the procurement officer at procurement.af@undp.org

Please note that UNDP implements a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical practices, and obstruction. UNDP is committed to preventing, identifying and addressing all acts of fraud and corrupt practices against UNDP as well as third parties involved in UNDP activities. (See

http://www.undp.org/about/transparencydocs/UNDP Anti Fraud Policy English FINAL june 2011.pdf and http:// www.undp.org/content/undp/en/home/operations/procurement/procurement protest/ for full description of the policies)

UNDP looks forward to receiving your Bid and thanks you in advance for your interest in UNDP procurement opportunities.

Α.	pproved by:	DocuSigned by: Nahid Khan	
		855F7EE147BE482	

Nahid Khan

Title: Procurement Specialist Date: 13 December 2021

Section 2. Instruction to Bidders

GENERAL PROVISIONS				
1. Introduction	1.1	Bidders shall adhere to all the requirements of this ITB, including any amendments made in writing by UNDP. This ITB is conducted in accordance with the UNDP Programme and Operations Policies and Procedures (POPP) on Contracts and Procurement which can be accessed at https://popp.undp.org/SitePages/POPPBSUnit.aspx?TermID=254a9f96-b883-476a-8ef8-e81f93a2b38d		
	1.2	Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this ITB.		
	1.3	UNDP reserves the right to cancel the procurement process at any stage without any liability of any kind for UNDP, upon notice to the bidders or publication of cancellation notice on UNDP website.		
	1.4	As part of the bid, it is desired that the Bidder registers at the United Nations Global Marketplace (UNGM) website (www.ungm.org). The Bidder may still submit a bid even if not registered with the UNGM. However, if the Bidder is selected for contract award, the Bidder must register on the UNGM prior to contract signature.		
2. Fraud & Corruption, Gifts and Hospitality	2.1	UNDP strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of UNDP vendors and requires all bidders/vendors observe the highest standard of ethics during the procurement process and contract implementation. UNDP's Anti-Fraud Policy can be found at http://www.undp.org/content/undp/en/home/operations/accountability/audit/office of audit andinvestigation.html#anti		
	2.2	Bidders/vendors shall not offer gifts or hospitality of any kind to UNDP staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or invitations to extravagant lunches or dinners.		
	2.3	In pursuance of this policy, UNDP:		
		(a) Shall reject a bid if it determines that the selected bidder has engaged in any corrupt or fraudulent practices in competing for the contract in question; (b) Shall declare a vendor ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the vendor has engaged in any corrupt or fraudulent practices in competing for, or in executing a UNDP contract.		
	2.4	All Bidders must adhere to the UN Supplier Code of Conduct, which may be found at http://www.un.org/depts/ptd/pdf/conduct-english.pdf		
3. Eligibility	3.1	A vendor should not be suspended, debarred, or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization. Vendors are therefore required to disclose to UNDP		

whether they are subject to any sanction or temporary suspension imposed by these organizations. 3.2 It is the Bidder's responsibility to ensure that its employees, joint venture members, sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by UNDP. 4. Conflict of Interests 4.1 Bidders must strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. Bidders found to have a conflict of interest shall be disqualified. Without limitation on the generality of the above, Bidders, and any of their affiliates, shall be considered to have a conflict of interest with one or more parties in this solicitation process, if they: Are or have been associated in the past, with a firm or any of its affiliates which have been engaged by UNDP to provide services for the preparation of the design, specifications, Terms of Reference, cost analysis/estimation, and other documents to be used for the procurement of the construction works in this selection process; b) Were involved in the preparation and/or design of the programme/project related to the construction works requested under this ITB; or c) Are found to be in conflict for any other reason, as may be established by, or at the discretion of UNDP. 4.2 In the event of any uncertainty in the interpretation of a potential conflict of interest, Bidders must disclose to UNDP, and seek UNDP's confirmation on whether or not such conflict exists. 4.3 Similarly, the Bidders must disclose in their Bid their knowledge of the following: a) If the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel who are family members of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving construction works under this ITB; and b) All other circumstances that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices. Failure to disclose such an information may result in the rejection of the Bid or Bids affected by the non-disclosure. The eligibility of Bidders that are wholly or partly owned by the Government shall 4.4 be subject to UNDP's further evaluation and review of various factors such as being registered, operated and managed as an independent business entity, the extent of Government ownership/share, receipt of subsidies, mandate and access to information in relation to this ITB, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Bid. **B. PREPARATION OF BIDS** 5. General 5.1 In preparing the Bid, the Bidder is expected to examine the ITB in detail. Material Considerations deficiencies in providing the information requested in the ITB may result in rejection of the Bid. 5.2 The Bidder will not be permitted to take advantage of any errors or omissions in

		the ITB. Should such errors or omissions be discovered, the Bidder must notify the UNDP accordingly.
6. Cost of Prepara of Bid	tion 6.1	The Bidder shall bear all costs related to the preparation and/or submission of the Bid, regardless of whether its Bid is selected or not. UNDP shall not be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.
7. Language	7.1	The Bid, as well as any and all related correspondence exchanged by the Bidder and UNDP, shall be written in the language (s) specified in the BDS.
8. Documents Comprising the	8.1 Bid	The Bid shall comprise of the following documents and related forms which details are provided in the BDS:
		 a) Documents Establishing the Eligibility and Qualifications of the Bidder; b) Technical Bid; c) Price Schedule; d) Bid Convitor if a project by RDC;
		d) Bid Security, if required by BDS;e) Any attachments and/or appendices to the Bid.
9. Documents Establishing the Eligibility and Qualifications o		The Bidder shall furnish documentary evidence of its status as an eligible and qualified vendor, using the Forms provided under Section 6 and providing documents required in those forms. In order to award a contract to a Bidder, its qualifications must be documented to UNDP's satisfaction.
Bidder		g with the Returnable Bid Forms (Section 6), Bidders must submit the following documents to establish their Eligibility and Qualifications.
		☑ Company Profile
		$\ \square$ Certificate of Registration of the business, including Articles of Incorporation, or equivalent document if Bidder is not a corporation;
		☑ Quality Certificate (e.g., ISO, etc.) and/or other similar certificates, accreditations, awards and citations received by the Bidder, if any;
		\boxtimes Manufacturer's authorization of the PV system equipment, if bidder is not a manufacturer of the respective equipment.
		☑ Latest Audited Financial Statement (Income Statement and Balance Sheet) including Auditor's Report for the past [3 years]. Minimum requirement on annual turnover must be: 1 million USD;
		☑ Statement of Satisfactory Performance of at minimum 2 projects of similar nature (Solar Pumping System, PV hybrids Systems), capacity (minimum 500 kW) and Contract Value (above 1 mill. USD) during the past 3 years;
		☑ All information regarding any past and current litigation during the last five (5) years, in which the bidder is involved, indicating the parties concerned, the subject of the litigation, the amounts involved, and the final resolution if already concluded;
10. Technical Bid Fo	ormat 10.1	The Bidder is required to submit a Technical Bid using the Standard Forms and templates provided in Section 6 of the ITB.
	10.2	Samples of items, when required as per Section 5, shall be provided within the time specified and unless otherwise specified by the Purchaser, at no expense to

		the UNDP. If not destroyed by testing, samples will be returned at Bidder's request and expense, unless otherwise specified.
	10.3	When applicable and required as per Section 5, the Bidder shall describe the necessary training programme available for the maintenance and operation of the equipment offered as well as the cost to the UNDP. Unless otherwise specified, such training as well as training materials shall be provided in the language of the Bid as specified in the BDS.
	10.4	When applicable and required as per Section 5, the Bidder shall certify the availability of spare parts for a period of at least five (5) years from date of delivery, or as otherwise specified in this ITB.
11. Price Schedule	11.1	The Price Schedule shall be prepared using the Form provided in Section 6 of the ITB and taking into consideration the requirements in the ITB.
	11.2	Any requirement described in the Technical Bid but not priced in the Price Schedule, shall be assumed to be included in the prices of other activities or items, as well as in the final total price.
12. Bid Security	12.1	A Bid Security, if required by BDS, shall be provided in the amount and form indicated in the BDS. The Bid Security shall be valid for a minimum of thirty (30) days after the final date of validity of the Bid.
	12.2	The Bid Security shall be included along with the Bid. If Bid Security is required by the ITB but is not found in the Bid, the offer shall be rejected.
	12.3	If the Bid Security amount or its validity period is found to be less than what is required by UNDP, UNDP shall reject the Bid.
	12.4	In the event an electronic submission is allowed in the BDS, Bidders shall include a copy of the Bid Security in their bid and the original of the Bid Security must be sent via courier or hand delivery as per the instructions in BDS.
	12.5	The Bid Security may be forfeited by UNDP, and the Bid rejected, in the event of any, or combination, of the following conditions:
		 a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or; b) In the event the successful Bidder fails: to sign the Contract after UNDP has issued an award; or to furnish the Performance Security, insurances, or other documents that UNDP may require as a condition precedent to the effectivity of the contract that may be awarded to the Bidder.
13. Currencies	13.1	All prices shall be quoted in the currency or currencies indicated in the BDS. Where Bids are quoted in different currencies, for the purposes of comparison of all Bids:
		a) UNDP will convert the currency quoted in the Bid into the UNDP preferred currency, in accordance with the prevailing UN operational rate of exchange on the last day of submission of Bids; and
		b) In the event that UNDP selects a Bid for award that is quoted in a currency different from the preferred currency in the BDS, UNDP shall reserve the right to award the contract in the currency of UNDP's preference, using the conversion method specified above.

14. Joint Venture, Consortium or Association

- 14.1 If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they shall confirm in their Bid that: (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by a duly notarized Agreement among the legal entities, and submitted with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture.
- 14.2 After the Deadline for Submission of Bid, the lead entity identified to represent the JV, Consortium or Association shall not be altered without the prior written consent of UNDP.
- 14.3 The lead entity and the member entities of the JV, Consortium or Association shall abide by the provisions of Clause 9 herein in respect of submitting only one Bid.
- 14.4 The description of the organization of the JV, Consortium or Association must clearly define the expected role of each of the entities in the joint venture in delivering the requirements of the ITB, both in the Bid and the JV, Consortium or Association Agreement. All entities that comprise the JV, Consortium or Association shall be subject to the eligibility and qualification assessment by UNDP.
- 14.5 A JV, Consortium or Association in presenting its track record and experience should clearly differentiate between:
 - Those that were undertaken together by the JV, Consortium or Association;
 and
 - b) Those that were undertaken by the individual entities of the JV, Consortium or Association.
- 14.6 Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the JV, Consortium or Association or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials
- 14.7 JV, Consortium or Associations are encouraged for high value, multi-sectoral requirements when the spectrum of expertise and resources required may not be available within one firm.

15. Only One Bid

- 15.1 The Bidder (including the individual members of any Joint Venture) shall submit only one Bid, either in its own name or as part of a Joint Venture.
- 15.2 Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:
 - a) they have at least one controlling partner, director or shareholder in common; or
 - b) any one of them receive or have received any direct or indirect subsidy from the other/s; or
 - c) they have the same legal representative for purposes of this ITB; or

	 d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of another Bidder regarding this ITB process; e) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this ITB process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.
16. Bid Validity Period	Bids shall remain valid for the period specified in the BDS, commencing on the Deadline for Submission of Bids. A Bid valid for a shorter period may be rejected by UNDP and rendered non-responsive.
	During the Bid validity period, the Bidder shall maintain its original Bid without any change, including the availability of the Key Personnel, the proposed rates and the total price.
17. Extension of Bid Validity Period	In exceptional circumstances, prior to the expiration of the Bid validity period, UNDP may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing, and shall be considered integral to the Bid.
	If the Bidder agrees to extend the validity of its Bid, it shall be done without any change to the original Bid.
	The Bidder has the right to refuse to extend the validity of its Bid, in which case, the Bid shall not be further evaluated.
18. Clarification of Bid (from the Bidders)	Bidders may request clarifications on any of the ITB documents no later than the date indicated in the BDS. Any request for clarification must be sent in writing in the manner indicated in the BDS. If inquiries are sent other than specified channel, even if they are sent to a UNDP staff member, UNDP shall have no obligation to respond or confirm that the query was officially received.
	UNDP will provide the responses to clarifications through the method specified in the BDS.
	UNDP shall endeavour to provide responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of UNDP to extend the submission date of the Bids, unless UNDP deems that such an extension is justified and necessary.
19. Amendment of Bids	At any time prior to the deadline of Bid submission, UNDP may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of an amendment to the ITB. Amendments will be made available to all prospective bidders.
	If the amendment is substantial, UNDP may extend the Deadline for submission of Bid to give the Bidders reasonable time to incorporate the amendment into their Bids.
20. Alternative Bids	Unless otherwise specified in the BDS, alternative Bids shall not be considered. If submission of alternative Bid is allowed by BDS, a Bidder may submit an alternative Bid, but only if it also submits a Bid conforming to the ITB

		requirements. Where the conditions for its acceptance are met, or justifications are clearly established, UNDP reserves the right to award a contract based on an alternative Bid.
	20.2	If multiple/alternative bids are being submitted, they must be clearly marked as "Main Bid" and "Alternative Bid"
21. Pre-Bid Conference	21.1	When appropriate, a pre-bid conference will be conducted at the date, time and location specified in the BDS. All Bidders are encouraged to attend. Non-attendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder's conference will be disseminated on the procurement website and shared by email or on the e-Tendering platform as specified in the BDS. No verbal statement made during the conference shall modify the terms and conditions of the ITB, unless specifically incorporated in the Minutes of the Bidder's Conference or issued/posted as an amendment to ITB.
	21.2	The bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the bidder's own expense.
	21.3	The bidder and any of its personnel or agents will be granted permission by the UNDP to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
	21.4	UNDP may conduct a site visit concurrently with the pre-bid meeting referred to in the BDS.
C. SUBMISSION AN	D OPE	NING OF BIDS
22. Submission	22.1	The Bidder shall submit a duly signed and complete Bid comprising the documents and forms in accordance with requirements in the BDS. The Price Schedule shall be submitted together with the Technical Bid. Bid can be delivered either personally, by courier, or by electronic method of transmission as specified in the BDS.
	22.2	The Bid shall be signed by the Bidder or person(s) duly authorized to commit the Bidder. The authorization shall be communicated through a document evidencing such authorization issued by the legal representative of the bidding entity, or a Power of Attorney, accompanying the Bid.
	22.3	Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder fully accepts the UNDP General Contract Terms and Conditions.
Hard copy (manual) submission	22.4	Hard copy (manual) submission by courier or hand delivery allowed or specified in the BDS shall be governed as follows:
		a) The signed Bid shall be marked "Original", and its copies marked "Copy" as appropriate. The number of copies is indicated in the BDS. All copies shall be

made from the signed original only. If there are discrepancies between the original and the copies, the original shall prevail. (b) The Technical Bid and Price Schedule must be sealed and submitted together in an envelope, which shall: i. Bear the name of the Bidder; Be addressed to UNDP as specified in the BDS; and ii. iii. Bear a warning not to open before the time and date for Bid opening as specified in the BDS. If the envelope with the Bid is not sealed and marked as required, UNDP shall assume no responsibility for the misplacement, loss, or premature opening of the Bid. Email and Electronic submission through email or eTendering, if allowed as specified in the BDS, shall be governed as follows: eTendering submissions Electronic files that form part of the Bid must be in accordance with the format and requirements indicated in BDS; b) Documents which are required to be in original form (e.g. Bid Security, etc.) must be sent via courier or hand delivered as per the instructions in BDS. 22.6 Detailed instructions on how to submit, modify or cancel a bid in the eTendering system are provided in the eTendering system Bidder User Guide and Instructional videos available on this link: http://www.undp.org/content/undp/en/home/operations/procurement/busine ss/procurement-notices/resources/ 23. Deadline for 23.1 Complete Bids must be received by UNDP in the manner, and no later than the date and time, specified in the BDS. UNDP shall only recognise the actual date Submission of Bids and time that the bid was received by UNDP and Late Bids 23.2 UNDP shall not consider any Bid that is received after the deadline for the submission of Bids. 24. Withdrawal. 24.1 A Bidder may withdraw, substitute or modify its Bid after it has been submitted Substitution, and at any time prior to the deadline for submission. Modification of Bids 24.2 Manual and Email submissions: A bidder may withdraw, substitute or modify its Bid by sending a written notice to UNDP, duly signed by an authorized representative, and shall include a copy of the authorization (or a Power of Attorney). The corresponding substitution or modification of the Bid, if any, must accompany the respective written notice. All notices must be submitted in the same manner as specified for submission of Bids, by clearly marking them as "WITHDRAWAL" "SUBSTITUTION," or "MODIFICATION" 24.3 eTendering: A Bidder may withdraw, substitute or modify its Bid by Cancelling, Editing, and re-submitting the Bid directly in the system. It is the responsibility of the Bidder to properly follow the system instructions, duly edit and submit a substitution or modification of the Bid as needed. Detailed instructions on how to cancel or modify a Bid directly in the system are provided in the Bidder User Guide and Instructional videos. 24.4 Bids requested to be withdrawn shall be returned unopened to the Bidders (only for manual submissions), except if the bid is withdrawn after the bid has been

	opened.	
25. Bid Opening	 UNDP will open the Bid in the presence of an ad-hoc committee formed by UNDP of at least two (2) members. The Bidders' names, modifications, withdrawals, the condition of the envelope labels/seals, the number of folders/files and all other such other details as UNDP may consider appropriate, will be announced at the opening. No Bid shall be rejected at the opening stage, except for late submissions, in which case, the Bid shall be returned unopened to the Bidders. 	
	25.3 In the case of e-Tendering submission, bidders will receive an automatic notification once the Bid is opened.	
D. EVALUATION OF	BIDS	
26. Confidentiality	26.1 Information relating to the examination, evaluation, and comparison of Bids, and the recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process, even after publication of the contract award.	
	26.2 Any effort by a Bidder or anyone on behalf of the Bidder to influence UNDP in the examination, evaluation and comparison of the Bids or contract award decisions may, at UNDP's decision, result in the rejection of its Bid and may subsequently be subject to the application of prevailing UNDP's vendor sanctions procedures.	
27. Evaluation of Bids	27.1 UNDP will conduct the evaluation solely on the basis of the Bids received.	
	 27.2 Evaluation of Bids shall be undertaken in the following steps: a) Preliminary Examination including Eligibility b) Arithmetical check and ranking of bidders who passed preliminary examination by price. c) Qualification assessment (if pre-qualification was not done) a) Evaluation of Technical Bids b) Evaluation of prices Detailed evaluation will be focussed on the 3 - 5 lowest priced bids. Further higher priced bids shall be added for evaluation if necessary 	
28. Preliminary Examination	8.1 UNDP shall examine the Bids to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, and whether the Bids are generally in order, among other indicators that may be used at this stage. UNDP reserves the right to reject any Bid at this stage.	
29. Evaluation of Eligibility and Qualification	29.1 Eligibility and Qualification of the Bidder will be evaluated against the Minimum Eligibility/Qualification requirements specified in the Section 4 (Evaluation Criteria).	
	 29.2 In general terms, vendors that meet the following criteria may be considered qualified: a) They are not included in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers, and in UNDP's ineligible vendors' list; 	

	 b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments, c) They have the necessary similar experience, technical expertise, production capacity, quality certifications, quality assurance procedures and other resources applicable to the supply of construction works required; d) They are able to comply fully with the UNDP General Terms and Conditions of Contract; e) They do not have a consistent history of court/arbitral award decisions against the Bidder; and f) They have a record of timely and satisfactory performance with their clients. 		
30. Evaluation of Technical Bid and prices	The evaluation team shall review and evaluate the Technical Bids on the basis of their responsiveness to the Schedule of Requirements and Technical Specifications and other documentation provided, applying the procedure indicated in the BDS and other ITB documents. When necessary, and if stated in the BDS, UNDP may invite technically responsive bidders for a presentation related to their technical Bids. The conditions for the presentation shall be provided in the bid document where required.		
31. Due diligence	 31.1 UNDP reserves the right to undertake a due diligence exercise, aimed at determining to its satisfaction, the validity of the information provided by the Bidder. Such exercise shall be fully documented and may include, but need not be limited to, all or any combination of the following: a) Verification of accuracy, correctness and authenticity of information provided by the Bidder; b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team; c) Inquiry and reference checking with Government entities with jurisdiction on the Bidder, or with previous clients, or any other entity that may have done business with the Bidder; d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of previous works, as deemed necessary; e) Physical inspection of the Bidder's offices, branches or other places where business transpires, with or without notice to the Bidder; f) Other means that UNDP may deem appropriate, at any stage within the selection process, prior to awarding the contract. 		
32. Clarification of Bids	 32.1 To assist in the examination, evaluation and comparison of Bids, UNDP may, at its discretion, request any Bidder for a clarification of its Bid. 32.2 UNDP's request for clarification and the response shall be in writing and no change in the prices or substance of the Bid shall be sought, offered, or permitted, except to provide clarification, and confirm the correction of any arithmetic errors discovered by UNDP in the evaluation of the Bids, in accordance with the ITB. 32.3 Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by UNDP, shall not be considered during the review and evaluation of the Bids. 		
33. Responsiveness of Bid	33.1 UNDP's determination of a Bid's responsiveness will be based on the contents of the bid itself. A substantially responsive Bid is one that conforms to all the		

		s, conditions, specifications and other requirements of the ITB without rial deviation, reservation, or omission.
	subse	id is not substantially responsive, it shall be rejected by UNDP and may not equently be made responsive by the Bidder by correction of the material tion, reservation, or omission.
34. Nonconformities, Reparable Errors and Omissions	confo	ded that a Bid is substantially responsive, UNDP may waive any non- ormities or omissions in the Bid that, in the opinion of UNDP, do not itute a material deviation.
	docu nonc Such	P may request the Bidder to submit the necessary information or mentation, within a reasonable period, to rectify nonmaterial conformities or omissions in the Bid related to documentation requirements. omission shall not be related to any aspect of the price of the Bid. Failure a Bidder to comply with the request may result in the rejection of its Bid.
		ne bids that have passed the preliminary examination, UNDP shall check correct arithmetical errors as follows:
	i F F	f there is a discrepancy between the unit price and the line item total that sobtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of JNDP there is an obvious misplacement of the decimal point in the unit price; in which case, the line item total as quoted shall govern and the unit price shall be corrected;
		there is an error in a total corresponding to the addition or subtraction of ubtotals, the subtotals shall prevail and the total shall be corrected; and
	S	there is a discrepancy between words and figures, the amount in words hall prevail, unless the amount expressed in words is related to an rithmetic error, in which case the amount in figures shall prevail.
		Bidder does not accept the correction of errors made by UNDP, its Bid shall jected.
E. AWARD OF CON	RACT	
35. Right to Accept, Reject, Any or All Bids	bids contr Bidde	P reserves the right to accept or reject any bid, to render any or all of the as non-responsive, and to reject all Bids at any time prior to award of act, without incurring any liability, or obligation to inform the affected er(s) of the grounds for UNDP's action. UNDP shall not be obliged to award ontract to the lowest priced offer.
36. Award Criteria	to th requi	to expiration of the period of Bid validity, UNDP shall award the contract e qualified and eligible Bidder that is found to be responsive to the rements of the Schedule of Requirements and Technical Specification, and ffered the lowest price.
37. Debriefing	from weak	event that a Bidder is unsuccessful, the Bidder may request for a debriefing UNDP. The purpose of the debriefing is to discuss the strengths and nesses of the Bidder's submission, in order to assist the Bidder in improving ture Bids for UNDP procurement opportunities. The content of other Bids

		and how they compare to the Bidder's submission shall not be discussed.
38. Right to Vary Requirements at the Time of Award	38.1	At the time of award of Contract, UNDP reserves the right to vary the quantity of construction works, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.
39. Contract Signature	39.1	Within fifteen (15) days from the date of receipt of the Contract, the successful Bidder shall sign and date the Contract and return it to UNDP. Failure to do so may constitute sufficient grounds for the annulment of the award, and forfeiture of the Bid Security, if any, and on which event, UNDP may award the Contract to the Second highest rated or call for new Bids.
40. Contract Type and General Terms and Conditions	40.1	The types of Contract to be signed and the applicable UNDP Contract General Terms and Conditions, as specified in BDS, can be accessed at http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html
41. Performance Security	41.1	A performance security, if required in the BDS, shall be provided in the amount specified in BDS and form available at <a 15="" contract%20management%20payment%20and%20taxes_advanced%20payment%20guarantee%20form.docx&action="default</a" href="https://popp.undp.org/layouts/15/WopiFrame.aspx?sourcedoc=/UNDP POPP_DOCUMENT_LIBRARY/Public/PSU_Solicitation_Performance%20Guarantee%20_Form.docx&action=default_within a maximum of fifteen (15) days of the contract signature by both parties. Where a performance security is required, the receipt of the performance security by UNDP shall be a condition for rendering the contract effective.</th></tr><tr><th>42. Bank Guarantee for
Advanced Payment</th><th>42.1</th><th>Except when the interests of UNDP so require, it is UNDP's standard practice to not make advance payment(s) (i.e., payments without having received any outputs). If an advance payment is allowed as per the BDS, and exceeds 20% of the total contract price, or USD 30,000, whichever is less, the Bidder shall submit a Bank Guarantee in the full amount of the advance payment in the form available at
43. Liquidated Damages	43.1	If specified in the BDS, UNDP shall apply Liquidated Damages for the damages and/or risks caused to UNDP resulting from the Contractor's delays or breach of its obligations as per Contract.
44. Payment Provisions	44.1	Payment will be made only upon UNDP's acceptance of the construction works performed, in line with the payment option indicated in the contract. The terms of payment shall be within thirty (30) days, after receipt of invoice and certification of acceptance of construction works issued by the proper authority in UNDP with direct supervision of the Contractor. Payment will be effected by bank transfer in the currency of the contract.
	44.2	Retention money (where applicable) shall be paid in line with the provisions in the contract and the General Conditions of Works.
		Upon the issue of the Taking-Over Certificate with respect to the whole of the

	Works, one-half of the Retention Money, or upon the issue of a Taking-Over Certificate with respect to a Section or part of the Permanent Works only such proportion thereof as the Engineer determines having regard to the relative value of such Section or part of the Permanent Works, shall be certified by the Engineer for payment to the Contractor. The Contractor may substitute the remaining retention money with an ondemand bank guarantee in a form, and from a source, acceptable to UNDP. Upon the expiration of the Defects Liability Period for the Works, the other half of the Retention Money shall be certified by the Engineer for payment to the Contractor (or return of the remaining security, which replaced the Retention Money). When works remain to be executed by the Contractor as instructed, pursuant to the Defect Liability Period Clauses in respect of the Works, the Engineer shall be entitled to withhold certification until completion of such work of so much of the balance of the Retention Money as shall, in the opinion of the Engineer, represent the cost of the work remaining to be executed.
45. Vendor Protest	5.1 UNDP's vendor protest procedure provides an opportunity for appeal to those persons or firms not awarded a contract through a competitive procurement process. In the event that a Bidder believes that it was not treated fairly, the following link provides further details regarding UNDP vendor protest procedures: http://www.undp.org/content/undp/en/home/procurement/business/protest-and-sanctions.html
46. Other Provisions	General Services Administration (GSA) of the federal government of the United States of America) for similar construction works, UNDP shall be entitled to the same lower price. The UNDP General Terms and Conditions shall have precedence. UNDP is entitled to receive the same pricing offered by the same Contractor in contracts with the United Nations and/or its Agencies. The UNDP General Terms and Conditions shall have precedence. The United Nations has established restrictions on employment of (former) UN staff who have been involved in the procurement process as per bulletin ST/SGB/2006/15 http://www.un.org/en/ga/search/view doc.asp?symbol=ST/SGB/2006/15&referer

Section 3. Bid Data Sheet

The following data for the construction works to be procured shall complement, supplement, or amend the provisions in the Invitation to Bid In the case of a conflict between the Instructions to Bidders, the Bid Data Sheet, and other annexes or references attached to the Bid Data Sheet, the provisions in the Bid Data Sheet shall prevail.

BDS No.	Ref. to Section.2	Data	Specific Instructions / Requirements
1	7	Language of the Bid	English
2		Submitting Bids for Parts or sub- parts of the Schedule of Requirements (partial bids)	Not Allowed
3	20	Alternative Bids	Shall not be considered
4	21	Pre-Bid conference/Site visit	Will be Conducted Time: 10:AM, Kabul Time Date: December 20, 2021 Venue: Virtual/Online (Please use the following link to participate) https://undp.zoom.us/j/83168018645 Meeting ID: 831 6801 8645 The UNDP focal point for the arrangement is: procurement.af@undp.org Bidders interested to attend the pre-bidding conference must send the following information to the above-mentioned email address on or before 10:00 AM (local time) one day prior to the date of conference. Participant's Name, Nationality, Company Name
5	16	Bid Validity Period	90 days
6	13	Bid Security	Required in the amount of USD 5,000 Acceptable Forms of Bid Security Bank Guarantee (See Section 8 for template)

			 Any Bank-issued Check / Cashier's Check / Certified Check Bank Draft, Unconditional Guarantee Letter from a Bank The bid security shall be submitted in original and in favor of UNDP Afghanistan, the attention of UNDP Country Director. UNDP reserves the right to reject the bid security should the mentioned conditions be deemed unfulfilled. Note: Scan PDF version of Bid security must be uploaded through E-Tendering system, the original must be submitted within one week after closing deadline of the ITB to the following address: Attention: SCMO, UNDP Country Office, UNOCA Compound, Jalalabad Road, Kabul, Afghanistan The bid security shall have a minimum validity period of 90 calendar days from the date of issuance. Bidders must be prepared to extend the validity period by 30 days if requested by UNDP. As soon as a contract has been awarded or in case of cancellation of the solicitation process, UNDP shall return the bid Security to all unsuccessful bidders.
7	41	Advanced Payment upon signing of contract	Not Allowed
8	42	Liquidated Damages	Will be imposed as follows: Percentage of contract price per day of delay: 0.003% Once the delay reaches to the maximum limit (10%), UNDP may consider termination of the Contract.
9	40	Performance Security	Required in the amount of 10% of total contract value. Within 7 days after signature of the contract, the successful Bidder shall furnish a Performance Security to UNDP in the amount of 10% of the Contract Value in the form set out in section 9 of the ITB and meeting the essential requirements set out therein. Performance security of 10% of the estimated price of the contract will be returned to the contractor, upon completing of all the works under the contract and issuance of Certificate of Substantial Completion. Defect Liability Guarantee: Upon acceptance of Substantial completion report by UNDP, the contractor shall provide a bank guarantee in the amount of 10% of the contract value to cover the Defect Liability Period of 12 months, returnable upon issuance of Certificate of Final Completion. During the 12 (twelve) months of Defect Liability Period, the contractor is obligated to correct, repair and/or reconstruct any faults as may arise or any items listed in the Certificate of Substantial

			Completion by UNDP, at the Contractors own cost and within 14 (fourteen) calendar days of notification by UNDP
10	12	Currency of Bid	United States Dollar
11	31	Deadline for submitting requests for clarifications/ questions	Five (5) days before the submission date. UNDP will endeavor to provide the above clarifications expeditiously, but any delay in providing such information will not be considered a reason for extending the submission date of a bid.
12	31	Contact Details for submitting clarifications/questions	Focal Person in UNDP: E-mail: Procurement.af@undp.org Note: This email address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was officially received. The Subject Line Email Should read, UNDP/AFG/ITB/2021/0000011207
13	18, 19 and 21	Manner of Disseminating Supplemental Information to the ITB and responses/clarifications to queries	Supplemental Information will be uploaded to the system (Atlas-E-tendering System). Once uploaded, bidders who accepted Tender Invitation will be notified automatically by a system that changes have occurred. It is the responsibility of the bidders to view the respective changes and clarifications in the system.
14	23	Deadline for Submission	Date and Time: As specified in the system (note that time zone indicated in the system in New York Time zone). PLEASE NOTE: i. Date and time visible on the main screen of the event (on E-Tendering portal) will be final and prevail over any other closing time indicated elsewhere in case they are different. The system will not accept any bid after the closing time. It is the responsibility of the bidder to make sure bids are submitted within this deadline. UNDP will not accept any bid that is not submitted directly to the system. Try to submit your bid a day prior or well before the closing time. Do not wait until last minute. If you face any issue submitting your bid at the last minute, UNDP may not be able to assist.

14	22	Allowable Manner of Submitting Bids	☐ Courier/Hand Delivery ☐ Submission by email ☑ e-Tendering	
15	22	Bid Submission Address	https://etendering.partneragencies.org Insert BU Code and Event ID number	
16	22	Electronic submission (e- Tendering) requirements	 ☑ Format: PDF, Word, JPG files only ☑ Max. File Size per transmission: [8 MB] ☑ Max. No. of transmission: [not limited] ☑ No. of copies to be transmitted: [one][☑ Virus Scanning Software to be Used prior to transmission. ☑ Time Zone to be Recognized: Bid closing date is according to New York Time Zone in E-Tendering System. 	
17	25	Date, time and venue for the opening of bid	Not Applicable: System Generated File "Bid Opening" will be shared with prospective bidders.	
18	27, 36	Evaluation Method for the Award of Contract	 ☑ Non-Discretionary "Pass/Fail" Criteria on the Technical Requirements; and ☑ Lowest price offer of technically qualified/responsive Bid . 	
19		Expected date for commencement of Contract	February 15, 2022	
20		Maximum expected duration of contract	4 Months	
21	35	UNDP will award the contract to:	Single Selected Bidder	
22	39	Type of Contract	Contract for Civil Works	
23	39	UNDP Contract Terms and Conditions that will apply	☐ General Terms and Conditions / Special Conditions for Contract. ☐ General Terms and Conditions for de minimis contracts (services only, less than \$50,000) ☑ General Terms and Conditions for Works	
24		Other Information Related to the ITB	See other sections of the ITB	

Section 4. Evaluation Criteria

i. Preliminary Examination Criteria

Bids will be examined to determine whether they are complete and submitted in accordance with ITB requirements as per below criteria on a **Yes/No** basis:

- Appropriate signatures
- Power of Attorney
- Minimum Bid documents provided
- Bid Validity
- Bid Security submitted as per ITB requirements with compliant validity period

ii. Eligibility and Qualification Criteria

Bidders must fulfill the minimum eligibility and competency criteria to qualify for further technical evaluation. It is a non-discretionary "Pass" or "Fail" rating based on the documents submitted by the bidders.

Subject	Criteria	Remarks
ELIGIBILITY		
Legal Status	Valid Certificate of Registration of the business, including Articles of Incorporation, or equivalent document if Bidder is not a corporation;	
Eligibility	Bidders not suspended, nor debarred, nor otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization.	Form A: Bid Submission Form
Bankruptcy	Not declared bankruptcy, not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against the vendor that could impair its operations in the foreseeable future.	Form A: Bid Submission Form
QUALIFICATION		
Previous Experience	At least 5 years of Operational Experience	FORM B: BIDDER INFORMATION FORM
	Statement of Satisfactory Performance of at minimum 2 projects of similar nature (Solar Pumping System, PV hybrids Systems), capacity (minimum 500 kW) and Contract Value (above 1 mill. USD) during the past 3 years;	
Financial Standing	Financial statement for the last three years with annual turnover of minimum USD \$1 million.	FORM D: Eligibility and Qualification Form
	Latest Audited Financial Statement (Income Statement and Balance Sheet) including Auditor's Report for the past [3 years]. Minimum requirement on annual turnover must be: 1 million USD;	

Key Expertise	Provision of required expertise. Project Manager/Team leader, bachelor's in engineering with a minimum 7-year experience in the management of Solar Energy or electrical energy construction works.	Form E: Technical Bid Form
	 □ QA/QC expert, bachelor's in electrical or renewable energy engineering with a minimum 5-year experience in the QA/QC, installations, operation, testing and commissioning of off-grid solar photovoltaics-diesel hybrid mini-grid systems. □ Project Site Engineer-Electrical, bachelor's in electrical engineering with a minimum 5-year experience in the installations of solar photovoltaics panels/arrays and 	
	transmission and distribution line. Solar Photovoltaic Expert. bachelor's in electrical engineering or renewable energy engineering with a minimum 5-year experience in the installations, operation, testing and commissioning of off-grid solar photovoltaics-	
	diesel hybrid mini-grids with the battery back-up. The Contractor shall engage competent workers to achieve the workmanship stated in the tender documents.	

iii. Technical Evaluation Criteria

Proposed components, equipment and methodology from the Bidders must fulfill the minimum preliminary technical criteria to qualify for further evaluation. It is a non-discretionary "Pass" or "Fail" rating based on the documents submitted by the bidders.

a. Solar PV modules and array

The Crystalline Silicon PV modules must fulfil the minimum standards and technical specifications as compiled in the Technical Data Sheet. The respective Data Sheet shall be completed by the Bidder and attached to the Bid. The bidder shall submit appropriate IEC/equivalent BIS certificate.

Each Solar module shall have a Peak Power rating of not less than 250Wp. Each PV module must use an identification tag containing the following information:

- Name of the manufacturer of PV module.
- Name of the manufacturer of Solar cells.
- Month and year of manufacture (separately for solar cells and module).
- Country of origin (separately for solar cells and module)
- I-V curve for the module.
- Peak Wattage, Im, Vm and FF for the module.
- Unique Serial no. and model no. of the module.
- Other relevant information on traceability of solar cells and module as per ISO 9000 series.

Total required capacity for each pumping station is specified in the Bill of Quantities. PV modules used in solar power plants/systems must be warranted for their output peak watt capacity, which shall not be less than 90% at the end of 12 years and 80% at the end of 25 years.

The guaranteed peak power classification shall be 0/+5Wp

The minimum temperature coefficient for output power shall not be below -0.45%/K.

Unless otherwise specified or dictated by site conditions, all PV arrays shall be oriented facing from southeast to southwest (preferably South), at a tilt angle of 35° from horizontal for maximum solar energy exposure. Arrays shall be located in such a way to prevent shading from trees, poles or other structures at any time and any day of the year.

b. Module mounting structure

The array mounting systems and overall installation must meet all applicable local building codes, and shall have attachment points, which are consistent with the module manufacturer's installation instructions, and the requirements of ANSI/ASCE 7-98.

The array support structure shall be fabricated using corrosion resistant GI (40 mm x 40 mm x 5 mm) or anodized aluminum or equivalent metal sections. Minimum thickness of galvanization shall be 80 microns. Array support structure fabricated from alternate material shall have equivalent degree of protection The Contractor shall submit respective certificates from an approved laboratory latest at commissioning.

Array mounting hardware supplied for this installation shall be compatible with the site considerations and environment. Special attention shall be paid to minimize the risk from exposed fasteners, sharp edges, and potential damage to the modules or support structure. Corrosion resistance and durability of the mechanical hardware is emphasized. All materials shall be selected to avoid corrosion and degradation. The use of any wood or plastic components is strongly discouraged.

These are high profile, publicly visible installations, and the aesthetics of the overall installations are extremely important. To create a uniform appearance of the array, spacing between individual modules and panels shall be kept to a minimum, and the overall layout keeping in consistency with the overall architectural features of the buildings and properties. As much as possible, all mechanical hardware, conduit, junction boxes and other equipment shall be concealed beneath and/or behind the array, and all other electrical work performed neatly and as inconspicuously as possible.

The array layout shall be consistent with the electrical ordering (and labeling) of source circuits in the array combiner boxes. Ease of access for array troubleshooting and maintenance is provided by allowing access to the back of the array for module junction box servicing, and removal/replacement of individual source circuits (panels) and modules if necessary.

The support structure shall be free from corrosion when installed; array support structure welded joints and fasteners shall be adequately treated to resist corrosion.

PV modules shall be secured to support structure using screw fasteners and/or metal clamps. Module fasteners/clamps shall be adequately treated to resist corrosion.

The support structure shall withstand wind loading of up to 150 km/h and operating environmental conditions for a period of minimum 25 years.

The junction boxes shall be of IP54 (for outdoor) as per IEC 529.

The mounting structures are fixed in reinforced concrete foundations, designed to withstand all loads including weight, wind, snow, and earthquake. The Contractor shall design the foundations and propose standard mounting structures and shall submit the documents including structural analyses, drawings, plans, etc. to the Employer for approval.

c. Solar inverter

The solar inverter must fulfill the minimum standards and technical specifications as compiled in the Technical Data Sheet and Bill of Quantities. The respective Data Sheet shall be completed by the Bidder and attached to the Bid.

The solar inverter converts the DC power of the solar modules into three phase 400 V/50 Hz AC power. It shall be of latest technology, without transformer, including sensitive residual current monitoring and tripping, ventilation/cooling concept (if required) and single feed in including modular extension option and 2 separate MPP-tracker for separate strings and multi cluster operation (if required). The inverter capacity shall be suitable and fully compatible to the offered solar modules and design of PV array.

Features:

- Stand-alone operation.
- High quality with high efficiency and reliability
- Microprocessor based intelligent controller
- Self-monitoring capability
- Highly reliable & efficient solid-state switching devices
- Rated for continuous operation at full load
- High over-load capability of 200% surge for 10 seconds
- Efficiency: ≥ 98% at rated load and normal operating conditions
- Sine wave output, with less than 4% THD at full load UPF and nominal input voltage
- Output voltage 400V, three phase
- Output frequency 50Hz ± 5Hz
- Enclosure IP 65

Protections:

- Short circuit protection
- Ground fault monitoring/grid monitoring
- DC reverse polarity protection/AC short-circuit current capability
- All-pole sensitive residual current monitoring.

Note: The inverters must be accompanied by a respective certificate, declaring that:

- The inverter type has been manufactured for the last 5 years
- Minimum amount of inverters manufactured and sold: >10,000 * rated capacity.

d. Bi-Directional battery inverter

The battery inverter shall fulfil the minimum standards and technical specifications as compiled in the Technical Data Sheet. The respective Data Sheet shall be completed by the Bidder and attached to the Bid.

The inverter consists of an inverter, voltage stabilizer and distribution panel along with necessary displays, indicators and alarms and major protections, conforming to the respective standards.

The battery inverter acts as battery controller, inverts the battery DC voltage into AC and forms and synchronize the PV system and existing generators.

The bi-directional inverter charges the battery and feeds battery power into the grid when required. Charge control is done as IUoU charge method with automatic full and equalization charge.

The inverter shall be equipped with high developed battery management function including monitoring.

The grid control and monitoring function includes maintaining of voltage and frequency, synchronization of additional power sources (if required) and automatic reactive power compensation.

Features:

- Bi-directional type inverter
- Stand-alone and hybrid operation.
- High quality with high efficiency and reliability
- Microprocessor based intelligent controller

- Self monitoring capability
- Highly reliable & efficient solid-state switching devices
- Rated for continuous operation at full load
- High over-load capability of 200% surge for 10 seconds
- Efficiency: ≥ 95% at rated load and normal operating conditions
- 83% (min) at 25% load and nominal input voltage with UPF load
- THD: Sine wave output, with less than 4% THD at full load UPF and nominal input voltage
- Output voltage 400V, three phase
- Output frequency 50Hz ± 0.5Hz
- Indications:
 - -Inverter ON Grid ON
 - -Array ON
 - -Inverter Under Voltage /Over Voltage
 - -Inverter Overload /Inverter Over Temperature
 - **Battery Low**
- Enclosure IP 54
- Temperature compensated battery charging feature.

Common Technical Specifications:

- Switching device IGBT/MOSFET Type MPPT based charger to charge the battery bank at chosen system design voltage with >95% solar charge controller efficiency
- Input voltage from PV array nominal as per system specifications
- MCB of suitable rating for connection and disconnection from load.

Protections:

- Short circuit protection
- Input under voltage / Deep discharge of battery
- Input surge voltage protection
- Over current
- Battery reverse polarity protection
- Solar array reverse blocking diode (provided in array junction box)
- DC rated fuse at input and AC rated fuse at output with suitable contactor/solid-state switches for safe start-up & shutdown of system
- Operation temperature: -25°C to +60°C
- Relative humidity: 95% maximum
- Finish Epoxy powder coating.
- Note: The inverters must be accompanied by a respective certificate, declaring that:
- The inverter type has been manufactured for the last 5 years
- Minimum amount of inverters manufactured and sold: >10,000 * rated capacity.

e. Battery bank

The batteries must fulfil the minimum standards and technical specifications as compiled in the Technical Data Sheet. The respective Data Sheet shall be completed by the Bidder and attached to the Bid.

The batteries used for these applications must be capable of sustained operation in a warm, tropical climate, and must deliver at least seven (7) years of service. Under no circumstances shall flooded lead-acid batteries be installed. Batteries hall be 100% maintenance free. The batteries shall be suitable for being used in PV

powered isolated grids and of lead acid type OPzV or AGM. The batteries commonly use 2 V cell voltage but other voltages are permitted in order to reduce no of batteries per string. Minimum capacity is at C10. Battery shall conform as per IEC 61427. Batteries shall be warranted for a period of 7 years.

Features:

- Lead Acid type OPvZ or AGM.
- Design such that SOC>30% during entire operation time.
- The batteries shall use 2V or higher cell capacity designed for C10 rate.
- The batteries shall be suitable for recharging by means of solar modules via incremental / open circuit regulators.
- Battery interconnecting links shall be provided for interconnecting the battery in series and in parallel as needed and shall be lead coated heavy duty copper strips.
- Connectors for inter cell connection (series / parallel) shall be maintenance free screws. Front covers shall be provided for each battery bank.
- Operating range: 0°C to +60°C.
- AH Efficiency: >95% and WH Efficiency: >85%
- Recombination Efficiency shall be >98%
- Self-Discharge of battery shall be <0.5% per week at 27°C.
- Container of battery shall be made of suitable material.
- The minimum lifetime of the Battery shall be 7 years.
- Instructions on charging, operation, temperature ranges and ventilation requirements shall be provided along with the batteries.

A battery rack with interconnections & end connector shall be provided to suitably house the batteries in the bank.

f. Earthing and lightning arrestor

The PV array and the control and battery rooms shall be equipped with lightning and over voltage protection. The principal aim in this protection is to reduce the over voltage to a tolerable value before it reaches the PV or other subsystems components. The source of over voltage can be lightning or any other atmospheric disturbances.

The array structure of the PV yard shall be grounded properly using adequate number of earthing kits. All metal casing / shielding of the plant shall be thoroughly grounded to ensure safety of the power plant.

The overall resistivity of the earthing system shall be less than 2 Ohm. Where the recommended practices are followed the overall value will usually be less than 1 Ohm.

An earthing bar is installed in the control room. Each part of the system (PV array, indoor control cabinets, distribution neutral is directly connected to the earthing bar via screws individual.

The connection of the earth grid at the PV array and the earthing system of the control/battery house shall be constructed with not less than 35 mm² copper conductor. Copper conductor for earthing may be hard drawn or soft drawn. For mechanical protection, the earth laid between 2.5 m above to 400 mm below ground shall be installed inside a 20 mm diameter polyethylene pipe of black colour. All buried earth conductors shall be not less than 450 mm below the ground.

All earth rods shall be made of extensible copper clad steel (or hot dip galvanized), normal length 1,500 x 15 mm diameter. Single or jointed earth rods shall be used as necessary to achieve a satisfactory earth test. Rods shall be driven into the ground in such a way that the top is not less than 450 mm below the surface. The earth rod assembly shall be fitted with a purpose designed clamp suitable for up to three 35 mm^2 copper conductors.

The buried earth grid adjacent to the PV array shall comprise of not less than four standard earth rods spaced

3 m or more installed a the corners of the array field. If additional earthing is required to achieve the threshold, the earth grid shall be extended in a radial pattern with bare copper conductor and rods at not less than 2 m spacing.

The LV neutral shall be earthed at every end of the distribution line. Earth connections at the ends of the distributor shall comprise a single earth stake solidly connected to the neutral conductor with 35 mm² copper PCV covered conductor.

g. Fuse Box

The Fuse Box must fulfil the minimum standards and technical specifications as compiled in the Technical Data Sheet. The respective Data Sheet shall be completed by the Bidder and attached to the Bid.

The DC Fuse Box shall protect the battery connections of the battery inverter/grid manager. It shall guarantee an all-pole battery protection and shall allow the disconnection of the battery inverter.

The fuses shall be of NH00 type with simple brackets mounted in a plastic box ready for wall mounting. The sizes of the battery fuses depend on the final design but are typical in the

iv. Evaluation Criteria and Methodology

Bids will be evaluated in accordance with the technical compliance (Pass/Fail) with technical specifications, followed by price evaluation. The lowest priced technically compliant bid of a qualified bidder will be selected for award of contract.

v. Payment schedule

The payments will be made upon completion of following milestones and deliverables.

#	Millstone and deliverables	Duration	Payment
1	Signing of Contract and submission of inception	5 days after signature of contract	
	report		
2	Completion of office setup and staffing at project	10 days from the start of the project	10%
	site.		
3	Delivery of Equipment at the site	8 weeks after completion of 2	40%
4	Completion of installations, testing and	5 weeks after completion of 3	40%
	commissioning		
5	Submission of final draft report and its	Within 5 days after project	10%
	acceptance by UNDP ALED Project	completion date	

Section 5a: Technical Specifications/Bill of Quantities

This section contains the following documents, each document are available as separate files in the ATLAS E-Tendering module.

1. Section 5 a1 – Scope of Work and Technical Specification

BILL OF QUANTITIES

Bidders shall price separately each Item in the Bill of Quantities (BOQ) and return the form duly signed with the Bid.

The Proposer is required to prepare the Financial Proposal in an envelope separate from the rest of the RFP as indicated in the Instruction to Proposers (Section 2).

The detailed cost breakdown which shall be delivered with the Financial Proposal is based on the BoQ template below. The BOQ needs to be completely filled. The cost of any item not filled is assumed to be included in another item.

The quantities set forth against the items in the bill of quantities are based on the preliminary field data and are an estimate of the quantity of each kind of the work likely to be carried out under the contract and are given to provide a common basis for bids. There is no guarantee to the Contractor that it will be required to carry out the quantities of work under any one particular item in the bill of quantities or that the real quantities will not differ in magnitude from those stated. It is the sole responsibility of the Contractor to make himself familiar with the final required design and calculate the real quantities required.

Preamble

- (1) The contract is a lump sum contract. The prices are fixed and will be not subject to any alterations, escalations, etc.
- (2) The bill of quantities must be read with all the other contract documents and the Contractor shall be deemed to have thoroughly acquainted himself with the detailed descriptions of the works to be done and the way in which they are to be carried out. All the works must be executed to the satisfaction of the Employer.

Pricing

- (1) The prices and rates inserted in the bill of quantities are to be the full inclusive values of the works described under the items, including all costs and expenses which may be required for
 - preparing the construction/Installations design,
 - in and for the construction/installations of the works described together with any temporary works and installations which may be necessary and all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based, including all insurances, transport, etc.,
 - · training of operators and
- (2) It will be assumed that establishment charges, profit and allowances for all obligations are spread evenly over all the unit rates.
- (3) Bidders must price each item in the bill of quantities separately and follow the instructions regarding the transfer of various totals in the summary.
- (4) Prices for items for which no prices are given are deemed to be included in other positions of the BoQ.
- (5) Rates and prices must be entered against each item in the bill of quantities. The rates will cover all tax, duty or other liabilities which are not stated separately in the bill of quantities and the tender.

- (6) The quantities set forth against the items in the bill of quantities are an estimate of the quantity of each kind of the work likely to be carried out under the contract and are given to provide a common basis for bids. There is no guarantee to the Contractor that it will be required to carry out the quantities of work under any one particular item in the bill of quantities or that the real quantities will not differ in magnitude from those stated.
- (7) No extra works, supplies, installations or variations on the Contract are possible.
- (8) No allowance will be made for loss of materials or volume thereof during transport or compaction.
- (9) If not otherwise stated all items shall include supply of material.

Taxes and Customs Duties

- 1. All imported material is tax exempted. UNDP may support the Contractor in the custom clearance of main equipment if requested. In that case all shipping documents including invoices, etc. are to be handed over to UNDP in 5 copies latest 1 month prior to arrival in Afghanistan.
- 2. Refer to Section 11 GTC civil works, Clause 56 Taxation for details

Units of Measurement

(1) The units of measurement used are those of the International System of Units (SI). No other units may be used for measurements, pricing, detail drawings etc. (Any units not mentioned in the technical documentation must also be expressed in terms of the SI.)

Completing The Bill Of Quantities

- (1) In the bill of quantities, rates and prices will be entered in the appropriate columns in USD. Errors will be corrected as follows:
 - a) Where there is a discrepancy between amounts in figures and in words, the amount in words will prevail; and
 - b) Where there is a discrepancy between the unit rate and the total amount derived from the unit price and the quantity, the unit rate as quoted will prevail.

Two separate files 'Bill of Quantities', in the PDF and excel format, is available in the ATLAS E-Tendering module. Bidder must download them from the E-tendering module.

2. Section 5 a2 - Bill of Quantities

Section 6: Returnable Bidding Forms / Checklist

This form serves as a checklist for preparation of your Bid. Please complete the Returnable Bidding Forms in accordance with the instructions in the forms and return them as part of your Bid submission. No alteration to format of forms shall be permitted and no substitution shall be accepted.

Before submitting your Bid, please ensure compliance with the Bid Submission instructions of the BDS 22.

Technical Bid:

Have you duly completed all the Returnable Bidding Forms?	
Form A: Bid Submission Form	
 Form B: Bidder Information Form 	
 Form C: Joint Venture/Consortium/ Association Information Form 	
FORM D: Eligibility and Qualification Form	
Form E: Format of Technical Bid	
 From F: Form of Bid Security 	
Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?	
Have you provided environmental policy/ Health and safety pan	
Price Schedule:	
 Form G: Price Schedule Form Please upload the BoQs both in PDF signed/stamped & soft excel copy with your bid 	

FORM A: BID SUBMISSION FORM

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	UNDP/AFG/ITB/2021/0000011207		

We, the undersigned, offer to supply the construction works and related goods and/or services required for [Insert Title of construction works] in accordance with your Invitation to Bid No. [Insert ITB Reference Number] and our Bid. We hereby submit our Bid, which includes this Technical Bid and Price Schedule.

Our attached Price Schedule is for the sum of [Insert amount in words and figures and indicate currency].

We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium /Association members or subcontractors or suppliers for any part of the contract:

- a) is not under procurement prohibition by the United Nations, including but not limited to prohibitions derived from the Compendium of United Nations Security Council Sanctions Lists;
- b) have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization;
- c) have no conflict of interest in accordance with Instruction to Bidders Clause 4;
- d) do not employ, or anticipate employing, any person(s) who is, or has been a UN staff member within the last year, if said UN staff member has or had prior professional dealings with our firm in his/her capacity as UN staff member within the last three years of service with the UN (in accordance with UN postemployment restrictions published in ST/SGB/2006/15);
- e) have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future;
- f) undertake not to engage in proscribed practices, including but not limited to corruption, fraud, coercion, collusion, obstruction, or any other unethical practice, with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN and we embrace the principles of the United Nations Supplier Code of Conduct and adhere to the principles of the United Nations Global Compact.

We declare that all the information and statements made in this Bid are true and we accept that any misinterpretation or misrepresentation contained in this Bid may lead to our disqualification and/or sanctioning by the UNDP.

We offer to supply the construction works and related goods and/or services in conformity with the Bidding documents, including the UNDP General Conditions of Contract and in accordance with the Schedule of Requirements and Technical Specifications.

Our Bid shall be valid and remain binding upon us for the period specified in the Bid Data Sheet.

We understand and recognize that you are not bound to accept any Bid you receive.

I, the undersigned, certify that I am duly authorized by [Insert Name of Bidder] to sign this Bid and bind it should UNDP accept this Bid.

Name:	 	
Title:	 	

Date:	
Signature:	
,	

[Stamp with official stamp of the Bidder]

FORM B: BIDDER INFORMATION FORM

Legal name of Bidder	[Complete]
Legal address	[Complete]
Year of registration	[Complete]
Bidder's Authorized Representative Information	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
Are you a UNGM registered vendor?	☐ Yes ☐ No If yes, [insert UGNM vendor number]
Are you a UNDP vendor?	☐ Yes ☐ No If yes, [insert UNDP vendor number]
Countries of operation	[Complete]
No. of full-time employees	[Complete]
Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):	[Complete]
Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? (If yes, provide a Copy of the valid Certificate):	[Complete]
Does your Company have a written Statement of its Environmental Policy? (If yes, provide a Copy)	[Complete]
Does your organization demonstrates significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies or membership of trade institutions promoting such issues	[Complete]
Is your company a member of the UN Global Compact	[Complete]
Contact person that UNDP may	Name and Title: [Complete]

contact for requests for	Talanhana numbers: [Camplete]
contact for requests for clarifications during Bid evaluation Please attach the following documents:	 Telephone numbers: [Complete] Email: [Complete] Company Profile, which should not exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the construction works being procured Certificate of Incorporation/ Business Registration Tax Registration/Payment Certificate issued by the Internal Revenue Authority evidencing that the Bidder is updated with its tax payment obligations, or Certificate of Tax exemption, if any such privilege is enjoyed by the Bidder Trade name registration papers, if applicable Quality Certificate (e.g., ISO, etc.) and/or other similar certificates, accreditations, awards and citations received by the Bidder, if any Environmental Compliance Certificates, Accreditations, Markings/Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-efficient equipment, reduced carbon emission, etc.), either in its business practices or in the construction works it manufactures Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder Certification or authorization to act as Agent on behalf of the Manufacturer, or Power of Attorney. Export Licenses, if applicable Local Government permit to locate and operate in assignment location, if applicable Official Letter of Appointment as local representative, if Bidder is submitting a Bid on behalf of an entity located outside the country Health and Safety Plan. In order to ensure adherence of all works carried out to minimum health and safety standards, such as SA Occupational Health and Safety Act 85 of 1993 and/or similar, ILO guidelines on safety & health in a construction site, etc. The said Health and Safety Plan shall be based o
	The said Health and Safety Plan shall be based on the manual, "Safety, health and welfare on construction sites/A Training Manual - International Labour Office Geneva (1999 version)". It
	can be found in Annex VI of the ITB. This Safety manual shall be an integral part of the tender and Contract documents (refer to Section 5).
	Note: The Contractor is obligated to fully comply the applicable Safety measures contained in the approved Safety plan since mobilization stage onwards.
	☐ Statement of Compliance/ Deviations in regards to each of

the items included in the **Error! Reference source not found.**, in Section 3 of this ITB.

FORM C: Joint Venture/Consortium/Association Information Form

Name of Bidder: [Insert Name of Bidder]			ler]			Date:	Select date
ITB re	eference:	UNDP/AFG/ITB/202	21/000001	1207			
To be	completed and r	eturned with your Bid	if the Bid	is subm	itted as a Jo	int Vent	ture/Consortium/Association.
No		tner and contact information phone numbers, fax numbers, e-mail Proposed proportion of responsibili %) and type of goods and/or service performed			oods and/or services to be		
1	[Complete]				[Complete]]	
2	[Complete]				[Complete]]	
3	[Complete]				[Complete]	
award We ha legal s □ Lett We he be joir	ve attached a contracture of and the ter of intent to foreby confirm that	opy of the below refethe confirmation of joorm a joint venture OP	int and sevant and sev	Verable l JV/Cons parties of the ment of the series of t	iability of to ortium/Assortium/Assortium/	he memociation	rtner, which details the likely abers of the said joint venture: a agreement (Consortium/Association shall be Contract.
Signat	ure:		-	Signatu	re:		
Date:				Date:			
Name of partner:			_	Name of partner:			
Signature:				Signatu	re:		

FORM D: Eligibility and Qualification Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	UNDP/AFG/ITB/2021/0000011207		

History of Non- Performing Contracts

□ Non-pe	□ Non-performing contracts did not occur during the last 3 years					
□ Contra	☐ Contract(s) not performed in the last 3 years					
Year						
	portion of contract		(current value in US\$)			
		Name of Client:				
	Address of Client:					
		Reason(s) for non-performance:				

Litigation History (including pending litigation)

□ No liti	□ No litigation history for the last 3 years							
☐ Litigat	☐ Litigation History as indicated below							
Year of	Year of Amount in dispute Contract Identification Total Contract Amount							
dispute	(in US\$)		(current value in US\$)					
		Name of Client:						
		Address of Client:						
Matter in dispute:								
Party who initiated the dispute:								
		Status of dispute:						
		Party awarded if resolved:						

Previous Relevant Experience

Please list only previous similar assignments successfully completed in the last 5 years.

List only those assignments for which the Bidder was legally contracted or sub-contracted by the Client as a company or was one of the Consortium/JV partners. Assignments completed by the Bidder's individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Bidder should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by UNDP.

Project name & Country of Assignment	Client & Reference Contact Details	Contract Value	Period of activity and status	Types of activities undertaken

Bidders may also attach their own Project Data Sheets with more details for assignments above.

☐ Attached are the Statements of Satisfactory Performance from the Top 3 (three) Clients or more.

Financial Standing

Annual Turnover for the last 3 years	Year 2018 Year 2019	USD USD	
	Year 2020	USD	
Latest Credit Rating (if any), indicate the			
source			

Financial information (in US\$ equivalent)	Historic information for the last 3 years				
	Year 1	Year 2	Year 3		
	Information from Balance Sheet				
Total Assets (TA)					
Total Liabilities (TL)					
Current Assets (CA)					
Current Liabilities (CL)					
	Infor	mation from Income State	ment		
Total / Gross Revenue (TR)					
Profits Before Taxes (PBT)					
Net Profit					
Current Ratio					

- Attached are copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition:
 - 1. Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies;
 - 2. Historic financial statements must be audited by a certified public accountant;
 - 3. Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.

FORM E: Format of Technical Bid

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	UNDP/AFG/ITB/2021/0000011207		

The Bidder's Bid should be organized to follow this format of the Technical Bid. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same will be viewed as non-responsive.

The bidder shall provide the following which will the technical bid requirement of this ITB:

SECTION 1: Bidder's qualification, capacity and expertise

1.1. Top (three o	1.1. Top (three or more) Projects implemented during the last 5 years:						
ProjectClientAmount inYear of%PerformanceDescriptionUS\$CompletionCompletedEvaluation							

1.2 Current on-going commitments (if any with UNDP & Other Clients);						
Project Description	Client Name	Amount in US\$	Completion Ratio	Anticipated date of Completion		

^{1.3} Quality assurance procedures and risk mitigation measures.

SECTION 2: Scope of Supply, Technical Specifications, and Related Services

This section should demonstrate the Bidder's responsiveness to the specification by identifying the specific components proposed, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the requirements/specifications. All important aspects should be addressed in sufficient detail.

- 2.1 A detailed description of how the Bidder will deliver the required goods and services, keeping in mind the appropriateness to local conditions and project environment. Details how the different service elements shall be organized, controlled and delivered.
- 2.2 Explain whether any work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.

- 2.3 The bid shall also include details of the Bidder's internal technical and quality assurance review mechanisms.
- 2.4 Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.
- 2.5 Demonstrate how you plan to integrate sustainability measures in the execution of the contract.

Technical Data Sheet: Bidder shall fill and return the following data sheets for the main components of the Solar Pumping System for evaluation of their products.

Table 1: PV modules

Description / Details	Unit	Specified/Required	Offered
PV Modules			
Electric Data			
Rated power at standard temperature conditions	W		
Peak Power (Pmax)	W		
Peak voltage (Vmax)	V		
Peak system voltage (Vsmax)	V		
Peak current (Imax)	Α		
Short circuit current (Isc)	Α		
No load voltage (Voc)	V		
A/°C-diagram			
Temperature power coefficient (%/K)		-0.45%/K	
Nominal cell operation temperature (NOCT)	°C		
U-I functions at 25°C and other temperatures and radiation			
General Data			
Min/max operational temperature	°C/°C	-40°C +80°C	
Min/max ambient temperature	°C/°C	-40°C +45°C	
Standards			
Connection terminal		DIN VDE 0126-5	
Wiring, plug connector		EN 50521	
Modules general		IEC 61215; IEC 61730; IEC 61701; IEC 61721; EN 50380	

Certificates			
Modules		IEC 61215; IEC 61730	
Test report by a certified and licensed laboratory		IEC 17025	
Product certification unit/authority		Acc. to EN 45011	
CE conformity (or equal)		yes	
Guarantee			
Product guarantee		5 years for product	
Output guarantee 12 years, min. power output (% of nominal power)		>90%	
Output guarantee 25 years, min. power output (% of nominal power)		>80%	
Cost of free replacement at installation site in case the min. output ratings fall short		yes	
Features			
Brand, Type, Model			
Cell dimensions (L/W)	Mm		
Module dimensions (L/W/H)	Mm		
Weight of Module	Kg		
Kind of glass			
For each size one separate data shee	t shall be fille	d l	•

Table 2: Solar Inverter

Description / Details	Unit	Specified/Required	Offered
Solar Inverter			
Input (DC)			
Max DC power (cos PHI=1)	kW	Refer to the BOQ for each site	
Max. input voltage	V		
MPP voltage range / rated input voltage	V/V		
Min. input voltage/initial input voltage	V/V		
Max. input current	Α		
Max input current: input A/input B	A/A		
Max. input current per string	Α		
Max input current per string: input A/input B	A/A		
Number of independent MPP inputs/strings per MPP input	no	1/1	
Output (AC)			
Rated power (@230 V, 50Hz)	W		
Max. apparent AC power	W		
Nominal AC voltage	V		
Nominal AC voltage range	V		
AC power frequency/range	Hz		
Rated grid frequency /rated grid voltage	Hz		
Max. output current	Α		
Power factor at rated power			
Adjustable displacement factor			
Feed in phases/connection phases	no	1/1	
Efficiency			
Max. efficiency/European efficiency	%	>=96/>=95	
Protective devices			
DC side disconnection device			
Ground fault monitoring/grid monitoring		Yes/yes	

DC revers polarity protection/AC short circuit current capability/galvanically isolated All-pole-sensitive residual current		Yes/yes/ Yes	
monitoring unit Protection class as per IEC 62103		1/111	
General data		7111	
Dimensions (W/H/D)	mm/mm/mm		
Weight			
	kg	25°C	
Min/max operation temperature	°C	-25°C +60°C	
Noise emission (typical)	dB(A)		
Self consumption (at night)	W	0.1	
Toplogy/cooling concept			
Degree of protection as per IEC 60529		IP65	
Climatic categaory as per IEC 60721-3-4		4K4H	
Max. permissible value for relative humidity (non-condensing)	%	100%	
Standards			
General		IEC 62103; IEC 60521; IEC 60721	
Conformity		CE or equivalent	
Guarantee			
Product guarantee		5 years for product	
Features			
Brand, Type, Model			
DC terminal/AC terminal			
Interfaces			
Multi function relay/power control module			
Warranty			
Certificates and approvals			
For each size one separate data she	et shall be filled	d	

Table 3: Bi-directional Battery inverter

Description / Details	Unit	Specified/Required	Offered
Battery Inverter			
AC Output (loads)			
Rated grid voltage /AC voltage range	V	230/ 202253	
Rated frequency (frequency range (adjustable)	Hz	50/ 4565	
AC power (at 25°C / at 40°C /@cos PHI=1)	W		
Rated power (@Unom/fnom/25°C/@ cosp PHI = 1)	kW	160	
AC power at 25°C for 30 min/1 min/3s	W		
Rated current / max output current (peak)	A/A		
Total harmonic factor output voltage /power factor with rated power	%	<4%/-1+1	
AC input (PV array or grid)			
Rated input voltage /AC input voltage range	V/V	230/202253	
Rated input frequency/allowable input frequency range	Hz	50/4070	
Max. AC input current / adjustable	Α		
Max AV input power	VA		
Battery DC Input			
Rated input voltage/DC input voltage range	V/V	48 / 4163	
Max battery charging current/DC rate charging current	A/A	110/90	
Battery type/battery capacity range		AGN, OPzV	
Charge control		IUoU, automatic full charge, equalization charge	
Efficiency/self consumption			
Max. efficiency/CEC efficiency	%/%	>95/>94.5	
Efficiency self-consumption without load/standby	W/W	<26<4	
Protective devices			
DC revers polarity protection/DC fuse		yes	
AC short circuit /AC overload		Yes/yes	
Overtemperature/battery deep discharge		Yes/yes/	

General data			
Dimensions (W/H/D)	mm/mm/mm		
Weight	kg		
Min/max operation temperature	°C	-25°C +60°C	
Standards			
General		IEC 62103; IEC 60521; IEC 60721	
Conformity		CE or equivalent	
Guarantee			
Product guarantee		5 years for product	
Features			
Brand, Type, Model			
Degree of protection		IP 54	
Warranty		5 years	
Certificates and approvals			

Table 4: Solar Batteries

Description / Details	Unit	Specified/Required	Offered
Solar Batteries			
Input (DC)			
Nominal voltage	W		
Minimum capacity: C10, @ T=20°C / C100: @T= 20°C	Ah/kWh		
Minimum cycles at 80% / 50% DoD			
Operational temperatures (min, optimum, max)	°C		
Operational characteristic diagram			
Charge limit voltage incl. Temperature dependency	V		
Permissible charge /discharge current	A/A		
Permissible discharge depth	%		
Charge / discharge efficiency	%/%		
Self discharge in %/month	%/month		
Low voltage threshold as function of discharge current	V		
Protection			
Integrated overvoltage		Yes	
Over current		Yes	
Short circuit		Yes	
Reverse polarity		Yes	
Standards			
General		IEC 60898-21; IEC 61427 or similar	
conformity		CE or similar	
Guarantee			
Product guarantee	year	5	
Cost free replacement at installation site in case min. output ratings fall short		Yes	
Features			
Brand, Type, Model			
Dimensions (L/W/H)	mm/mm/mm		
weight	kg		

Characteristics of electrodes, construction, weave alloy				
Display of battery voltage				
Certificates / approvals				
For each size one separate data sheet shall be filled				

Table 5: DC fuse box

Description / Details	Unit	Specified/Required	Offered
DC Fuse Box			
Manufacturer's name/country of origin			
type			
Housing			
Fuse			
Туре		NH00	
Bracket		Simple bracket	
Number	Nos		
Connections for battery			
Quantity per pole	Nos	2	
Pipe cable lug		M8	
Max. cross section of cable	mm²		
Max. outer diameter of cable	mm2		
Features			
Dimensions (W/H/D)	mm/mm/mm		
Weight	kg		
Ambient Conditions			
Ambient temperature	°C	-20+60	
Humidity (no condensation)	%	100	
General Data			
Protection rating		IP65	
Certification		CE	
Mounting		Wall mounting	
For each size one data sheet shal	l be filled		

SECTION 3: Management Structure and Key Personnel:

- 3.1 Describe the overall management approach toward planning and implementing the project. Include an organization chart for the management of the project describing the relationship of key positions and designations. Provide a spreadsheet to show the activities of each personnel and the time allocated for his/her involvement.
- 3.2 Provide CVs for key personnel that will be provided to support the implementation of this project using the format below. CVs should demonstrate qualifications in areas relevant to the scope of goods and/or services.

Position	Name	Nationality	Age	Education	Years of experience (with bidder in similar works)	Major works for which responsible (project/value)

Format for CV of Proposed Key Personnel

Name of Personnel	[Insert]
Position for this assignment	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]
Education/	[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]
Qualifications	[Insert]
Professional certifications	 [Provide details of professional certifications relevant to the scope of construction works] Name of institution: [Insert] Date of certification: [Insert]

Signature of Personnel

Employment Record/ Experience	[List all positions held by personnel (starting with present position, list in reverse order), giving dates, names of employing organization, title of position held and location of employment. For experience in last five years, detail the type of activities performed, degree of responsibilities, location of assignments and any other information or professional experience considered pertinent for this assignment.]
	[Insert]
	[Provide names, addresses, phone and email contact information for two (2) references]
References	Reference 1: [Insert]
	Reference 2: [Insert]
I the undersigned certify	that to the best of my knowledge and belief, the data provided above correctly

I, the undersigned, certify that to the best of my knowledge and belief, the data provided above corre	ectly
describes my qualifications, my experiences, and other relevant information about myself.	

Date (Day/Month/Year)

FORM F: Bill of Quantities

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	UNDP/AFG/ITB/2021/0000011207		

The Bidder is required to prepare the Bill of Quantities (BoQ) and must include a detailed cost breakdown of all goods and related services to be provided. Bidders shall price separately each Item in the BOQ and return the form duly signed with the Bid.

The Bidder is required to prepare the Financial Proposal as indicated in the Bid Data Sheet (Section 3).

The detailed cost breakdown which shall be delivered with the Financial Proposal is based on the BoQ template below. The BOQ needs to be completely filled. The cost of any item not filled is assumed to be included in another item.

The quantities set forth against the items in the BOQ are based on the tender design and are an estimate of the quantity of each kind of the work likely to be carried out under the contract and are given to provide a common basis for bids. There is no guarantee to the Contractor that it will be required to carry out the quantities of work under any one particular item in the BOQ or that the real quantities will not differ in magnitude from those stated. It is the sole responsibility of the Contractor to make himself familiar with the final required design (construction design and drawings) and calculate the real quantities required.

Pricing

- (10) The prices and rates inserted in the BOQ are to be the full inclusive values of all the works described under the items, including all costs and expenses which may be required for:
 - preparing construction of the works described together with any temporary works and
 installations which may be necessary and all general risks, liabilities and obligations set forth or
 implied in the documents on which the tender is based, including all insurances, transport,
 staffing, etc.,
 - training of operators and
 - Operation of the entire system during the defect liability period (DLP) for one year.
- (11) It will be assumed that establishment charges, profit and allowances for all obligations are spread evenly over all the unit rates.
- (12) Bidders must price each item in the bill of quantities separately and follow the instructions regarding the transfer of various totals in the summary.
- (13) Prices for items for which no prices are given are deemed to be included in other positions of the BOO.
- (14) Where the bidder assumes additional cost items have not been included in the BoQ, such items' costs shall be incorporated into existing cost items, thus ensuring that the project can be completed at the stated cost.
- (15) Rates and prices must be entered against each item in the BOQ. The rates will cover all tax, duty or other liabilities which are not stated separately in the BOQ and the tender.
- (16) The quantities set forth against the items in the BOQ are an estimate of the quantity of each kind of the work likely to be carried out under the contract and are given to provide a common basis for bids. There is no guarantee to the Contractor that it will be required to carry out the quantities of work under any one particular item in the BOQ or that the real quantities will not differ in magnitude from those stated.
- (17) No extra works, supplies, installations or variations on the Contract are possible without UNDP prior approval.
- (18) No allowance will be made for loss of materials or volume thereof during transport or compaction.
- (19) If not otherwise stated all items shall include supply of material.

Completing the Bill of Quantities:

- (2) In the BOQ, rates and prices will be entered in the appropriate columns in USD. Errors will be corrected as follows:
 - a) Where there is a discrepancy between amounts in figures and in words, the amount in words will prevail; and
 - b) Where there is a discrepancy between the unit rate and the total amount derived from the unit price and the quantity, the unit rate as quoted will prevail.

Note: All material should be removed from the site by the contractor unless specified by UNDP representative and UNDP can keep the material for future usage.

Please refer to BOQ attached as (ANNEX I)

FORM G: FORM OF BID SECURITY

Bid Security must be issued using the official letterhead of the Issuing Bank. Except for indicated fields, no changes may be made on this template.

To: UNDP

[Insert contact information as provided in Data Sheet]

WHEREAS [Name and address of Bidder] (hereinafter called "the Bidder") has submitted a Bid to UNDP dated Click here to enter a date. to execute construction works [Insert Title of Construction works] (hereinafter called "the Bid"):

AND WHEREAS it has been stipulated by you that the Bidder shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security if the Bidder:

- a) Fails to sign the Contract after UNDP has awarded it;
- b) Withdraws its Bid after the date of the opening of the Bids;
- c) Fails to comply with UNDP's variation of requirement, as per ITB instructions; or
- d) Fails to furnish Performance Security, insurances, or other documents that UNDP may require as a condition to rendering the contract effective.

AND WHEREAS we have agreed to give the Bidder such Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Bidder, up to a total of [amount of guarantee] [in words and numbers], such sum being payable in the types and proportions of currencies in which the Price Bid is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of [amount of guarantee as aforesaid] without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

This guarantee shall be valid up to 30 days after the final date of validity of bids.

SIGNATURE AND SEAL OF THE GUARANTOR BANK

Signature:		 	
Title:		 	
Date:		 	
Name of Ba	ank	 	

[Stamp with official stamp of the Bank]

e)	FORM H: Form for Performance Security (for the successful Bidder only, to be submitted after the Award)
f)	arter the rivary
g)	(This must be finalized using the official letterhead of the Issuing Bank. Except for indicated fields, no changes may be made in this template.)
h) i) j)	To: UNDP [Insert contact information as provided in Data Sheet]
k)	WHEREAS [name and address of Contractor] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. Click to enter dated Click to enter, to deliver the goods and execute related services Click here to enter text. (hereinafter called "the Contract"):
l) m) n)	AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract:
o) p)	AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:
q)	NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of [amount of guarantee] [in words and numbers], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of [amount of guarantee as aforesaid] without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.
r) s)	This guarantee shall be valid until a date 30 days from the date of issue by UNDP of a certificate of satisfactory performance and full completion of services by the Contractor.
t) u) v) w)	
x) y) z) aa)	SIGNATURE AND SEAL OF THE GUARANTOR BANK
-	Date
,	Name of Bank
ff)	Address

SAFETY, HEALTH AND WELFARE ON CONSTRUCTION SITES - MANUAL

Bidders are to refer to the "Safety Manual" which can be accessed from at: http://www.ilo.org/safework/info/instr/WCMS 110237/lang--en/index.htm

The Bidder is **NOT** required to submit a copy of the **Safety Manual** along with his/her bid.

Only Successful bidder shall print and provide UNDP with a hardcopy of the **Safety Manual** duly acknowledged (signed/stamped) upon Contract signature.