United Nations Development Programme



REQUEST FOR PROPOSAL Engineering Design, Procurement, and Construction for Centralized Off-Grid Solar PV Power Generation System in 23 Villages in Indonesia

RFP No.: RFP/UNDP/ACCESS/IDN-0000116781/023/2021 Project: Accelerating Clean Energy Access to Reduce Inequality (ACCESS) Project Country: Indonesia

Issued on: 10 June 2021

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Dear Sir/Madam,

The United Nations Development Programme (UNDP) hereby invites you to submit a Proposal to this Request for Proposal (RFP) for the above-referenced subject.

Detailed Terms of Reference (TOR) as well as other requirements are listed in the RFP available on UNDP ATLAS e-Tendering system (<u>https://etendering.partneragencies.org</u>) Event ID: **0000009468**

Your offer, comprising of a Technical and Financial Proposal for each of proposed Lot(s), should be submitted in accordance with the RFP requirements, through the UNDP ATLAS e-Tendering system and by the deadline indicated in <u>https://etendering.partneragencies.org</u>.

NOTE: The Technical Proposal and Financial Proposal files MUST BE COMPLETELY SEPARATE and uploaded separately in the system and clearly named as either "TECHNICAL PROPOSAL" or "FINANCIAL PROPOSAL", as appropriate. If you intend to submit for more than one lot, you must submit a separate financial and technical proposal for each lot, do not merge the financial and technical proposal for different lot. Each document shall include the Proposer's name and address. The file with the "FINANCIAL PROPOSAL" must be encrypted with a password so that it cannot be opened nor viewed until the Technical Proposal has been found to be pass the technical evaluation stage. Once a Technical Proposal has been found to be responsive by passing the technical evaluation stage, UNDP shall request the Proposer to submit the password to open the Financial Proposal. The Proposer shall assume the responsibility for not encrypting the Financial Proposal. NOTE: DO NOT ENTER BID AMOUNT IN THE SYSTEM, INSTEAD ENTER THE NUMBER 1.

In the course of preparing and submitting your Proposal, it shall remain your responsibility to ensure that it is submitted into the system by the deadline. The system will automatically block and not accept any bid after the deadline. In case of any discrepancies, the deadline indicated in the system shall prevail.

Kindly ensure that supporting documents required are signed and stamped and in the .pdf format, and free from any virus or corrupted files and the FINANCIAL PROPOSAL IS PASSWORD PROTECTED.

NOTE: The file name should contain only Latin characters (No Cyrillic or other alphabets.).

You are kindly requested to indicate whether your company intends to submit a Proposal by clicking "Accept Invitation" but not later than **Thursday**,**17 June 2021 at 06:00 hrs EDT/EST**. If this is not the case, UNDP would appreciate indicating your reason, for our records.

If you have not registered in the system before, you can register by logging in using:

Username: event.guest Password: why2change

The step by step instructions for registration of bidders and quotation submission through the UNDP ATLAS e-Tendering system is available in the attached "Instructions Manual for the Bidders". Should you require any training on the UNDP ATLAS e-Tendering system or face any difficulties when registering your company or submitting your quotation, please send an email to <u>fatima.snaineh@undp.org</u> c.c <u>martin.kurnia@undp.org</u>

Please note that ATLAS has following minimum requirements for password:

- 1. Minimum length of 8 characters;
- 2. At least one capital letter; and
- 3. At least one number.

New proposer registering for the first time, the system will not accept any password that does not meet the above requirement, and thus registration cannot be completed.

For existing vendor whose current password does not meet the abovementioned password requirements, the system will prompt you to change your password upon signing in. Please change your password in accordance with the abovementioned password requirements to be able to login to the system.

The user guide and video are available to you in the UNDP public website in this link: <u>https://www.undp.org/content/undp/en/home/procurement/business/resources-for-bidders</u>.

You are advised to use Internet Explorer (Version 10 or above) to avoid any incompatibility issues with the re-tendering system.

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

UNDP looks forward to receiving your Proposal and appreciate your interest to participate in UNDP procurement opportunities.

Yours sincerely,

Martin Kurnia Procurement Analyst

SECTION 1. LETTER OF INVITATION

The United Nations Development Programme (UNDP) hereby invites you to submit a Proposal to this Request for Proposal (RFP) for the above-referenced subject.

This RFP includes the following documents and the General Terms and Conditions of Contract which is inserted in the Bid Data Sheet (BDS):

Section 1: This Letter of Invitation

Section 2: Instruction to Bidders

Section 3: Bid Data Sheet (BDS)

Section 4: Evaluation Criteria

Section 5: Terms of Reference

- Annex 1. Contract for Civil Works template
- o Annex 2. General Terms and Conditions for Contract
- Annex 3. UN Supplier Code of Conduct
- $\circ~$ Annex 4.1 to 4.4 Site Assessments and Block Plan/Site Plan for 23 $\,$
- o Annex 5. Environmental and Social Management Framework (ESMF)
- Annex 6. Bidder Statement on technical specifications & deviations
- Annex 7. Template for Performance Guarantee

Section 6: Returnable Bidding Forms

- o Form A: Technical Proposal Submission Form
- Form B: Bidder Information Form
- o Form C: Joint Venture/Consortium/Association Information Form
- Form D: Qualification Form
- o Form E: Format of Technical Proposal
- o Form F: Financial Proposal Submission Form
- FormG: Financial Proposal Form
- Form H: Form of Proposal Security

If you are interested in submitting a Proposal in response to this RFP, please prepare your Proposal in accordance with the requirements and procedure as set out in this RFP and submit it by the Deadline for Submission of Proposals set out in Bid Data Sheet. Please acknowledge receipt of this RFP by sending an email to <u>fatima.snaineh@undp.org/martin.kurnia@undp.org</u>, indicating whether you intend to submit a Proposal or otherwise (**please indicate the reason**). You may also utilize the "Accept Invitation" function in eTendering system, where applicable. This will enable you to receive amendments or updates to the RFP. Should you require further clarifications, kindly communicate with the contact person/s identified in the attached Bid Data Sheet as the focal point for queries on this RFP.

UNDP looks forward to receiving your Proposal and thank you in advance for your interest in UNDP procurement opportunities.

Issued by:

1. Sincel

Name: Fatima Abu Snaineh Title: Procurement Analyst Date: **June 10, 2021** Approved by:

Name: Martin Kurnia Title: Procurement Analyst Date: **June 10, 2021**

SECTION 2. INSTRUCTION TO BIDDERS

| a. GENERAL PROVISION | IS |
|--|--|
| 1. Introduction | Bidders shall adhere to all the requirements of this RFP, including any amendments in writing by UNDP. This RFP 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 |
| | Any Proposal submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Proposal by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this RFP. |
| | As part of the bid, it is desired that the Bidder registers at the United Nations Global Marketplace (UNGM) website (<u>www.ungm.org</u>). 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 | 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 <u>http://www.undp.org/content/undp/en/home/operations/accountab</u> <u>ility/audit/office_of_audit_andinvestigation.html#anti</u> |
| | 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. |
| | In pursuance of this policy, UNDP (a) Shall reject a proposal 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 of time, 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. |
| | 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 | 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. It is the Bidder's responsibility to ensure that its employees, joint venture members, sub-contractors, consistent providers, suppliers, and/or, their |
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| | employees meet the eligibility requirements as established by UNDP. |
| 4. Conflict of Interests | 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: |
| | a) 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 goods and services in this selection process. b) Were involved in the preparation and/or design of the programme/project related to the services requested under this RFP; or |
| | c) Are found to be in conflict for any other reason, as may be established by or at the discretion of LINDP |
| | 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 such a conflict exists. |
| | Similarly, the Bidders must disclose in their proposal their knowledge of the following: |
| | a) If the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel are family members of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving services under this RFP; 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 proposal or proposals affected by the non-disclosure. |
| | The eligibility of Bidders that are wholly or partly owned by the Government shall 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 RFP, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Proposal. |
| b. PREPARATION OF PR | ROPOSALS |
| 5. General | In preparing the Proposal, the Bidder is expected to examine the RFP in |

| Considerations | detail. Material deficiencies in providing the information requested in the RFP may result in rejection of the Proposal. |
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| | The Bidder will not be permitted to take advantage of any errors or omissions in the RFP. Should such errors or omissions be discovered, the Bidder must notify the UNDP. |
| 6. Cost of Preparation of Proposal | The Bidder shall bear any and all costs related to the preparation and/or submission of the Proposal, regardless of whether its Proposal was 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 | The Proposal, 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 | The Proposal shall comprise of the following documents: |
| Comprising the Proposal | a) Documents Establishing the Eligibility and Qualifications of the Bidder; b) Technical Proposal; c) Financial Proposal; |
| | d) Proposal Security, if required by BDS;e) Any attachments and/or appendices to the Proposal. |
| 9. Documents Establishing the Eligibility and Qualifications of the Bidder | 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. |
| 10. Technical Proposal Format and Content | The Bidder is required to submit a Technical Proposal using the Standard Forms and templates provided in Section 6 of the RFP. |
| | The Technical Proposal shall not include any price or financial information. A Technical Proposal containing material financial information may be declared non-responsive. |
| | Samples of items, when required as per Section 5, shall be provided within the time specified and unless otherwise specified by UNDP, and at no expense to UNDP. |
| | When applicable and required as per Section 5, the Bidder shall describe the necessary training programme available for the maintenance and operation of the services and/or 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. |
| 11. Financial Proposals | The Financial Proposal shall be prepared using the Standard Form provided in Section 6 of the RFP. It shall list all major cost components associated with the services, and the detailed breakdown of such costs. |
| | Any output and activities described in the Technical Proposal but not priced in the Financial Proposal, shall be assumed to be included in the prices of other activities or items, as well as in the final total price. |

| | Prices and other financial information must not be disclosed in any other place except in the financial proposal. |
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| 12. Proposal Security | A Proposal Security, if required by BDS, shall be provided in the amount and form indicated in the BDS. The Proposal Security shall be valid up to thirty (30) days after the final date of validity of the Proposal. |
| | The Proposal Security shall be included along with the Technical Proposal. If Proposal Security is required by the RFP but is not found along with the Technical Proposal, the Proposal shall be rejected. |
| | If the Proposal Security amount or its validity period is found to be less than what is required by UNDP, UNDP shall reject the Proposal. |
| | In the event an electronic submission is allowed in the BDS, Bidders shall include a copy of the Bid Security in their proposal and the original of the Proposal Security must be sent via courier or hand delivery as per the instructions in BDS. |
| | The Proposal Security may be forfeited by UNDP, and the Proposal rejected, in the event of any one or combination, of the following conditions: |
| | a) If the Bidder withdraws its offer during the period of the Proposal Validity specified in the BDS, or; b) In the event that the successful Bidder fails: i. 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 | All prices shall be quoted in the currency or currencies indicated in the BDS. Where Proposals are quoted in different currencies, for the purposes of comparison of all Proposals: |
| | a) UNDP will convert the currency quoted in the Proposal into the UNDP preferred currency, in accordance with the prevailing UN operational rate of exchange on the last day of submission of Proposals; and |
| | b) In the event that UNDP selects a proposal 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 | If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Proposal, they shall confirm in their Proposal 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 Proposal; 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. |
| | After the Deadline for Submission of Proposal, the lead entity identified to represent the JV, Consortium or Association shall not be altered without |

| | the prior written consent of UNDP. |
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| | 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 proposal. |
| | The description of the organization of the JV, Consortium or Association must clearly define the expected role of each of the entity in the joint venture in delivering the requirements of the RFP, both in the Proposal 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. |
| | AJV, Consortium or Association in presenting its track record and experience should clearly differentiate between: |
| | a) 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. |
| | 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. |
| | 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 Proposal | The Bidder (including the individual members of any Joint Venture) shall submit only one Proposal, either in its own name or as part of a Joint Venture. |
| | Proposals 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 RFP; 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 Proposal of, another Bidder regarding this RFP process; |
| | e) they are subcontractors to each other's Proposal, or a subcontractor to one Proposal also submits another Proposal under its name as lead Bidder: or |
| | f) some key personnel proposed to be in the team of one Bidder participates in more than one Proposal received for this RFP process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Proposal. |
| 16. Proposal Validity | Proposals shall remain valid for the period specified in the BDS, commencing |

| Period | on the Deadline for Submission of Proposals. A Proposal valid for a shorter period may be rejected by UNDP and rendered non-responsive. |
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| | During the Proposal validity period, the Bidder shall maintain its original Proposal without any change, including the availability of the Key Personnel, the proposed rates and the total price. |
| 17.Extension of Proposal Validity Period | In exceptional circumstances, prior to the expiration of the proposal validity period, UNDP may request Bidders to extend the period of validity of their Proposals. The request and the responses shall be made in writing and shall be considered integral to the Proposal. |
| | If the Bidder agrees to extend the validity of its Proposal, it shall be done without any change in the original Proposal. |
| | The Bidder has the right to refuse to extend the validity of its Proposal, and in which case, such Proposal will not be further evaluated. |
| 18.Clarification of Proposal | Bidders may request clarifications on any of the RFP 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 endeavor 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 Proposals, unless UNDP deems that such an extension is justified and necessary. |
| 19. Amendment of Proposals | At any time prior to the deadline of Proposal submission, UNDP may for any reason, such as in response to a clarification requested by a Bidder, modify the RFP in the form of an amendment to the RFP. Amendments will be made available to all prospective bidders. |
| | If the amendment is substantial, UNDP may extend the Deadline for submission of proposal to give the Bidders reasonable time to incorporate the amendment into their Proposals. |
| 20. Alternative Proposals | Unless otherwise specified in the BDS, alternative proposals shall not be considered. If submission of alternative proposal is allowed by BDS, a Bidder may submit an alternative proposal, but only if it also submits a proposal conforming to the RFP requirements. UNDP shall only consider the alternative proposal offered by the Bidder whose conforming proposal ranked the highest as per the specified evaluation method. 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 proposal. |
| | marked as "Main Proposal" and "Alternative Proposal" |

| 21.Pre-Bid Conference | When appropriate, a Bidder's 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 RFP, unless specifically incorporated in the Minutes of the Bidder's Conference or issued/posted as an amendment to RFP. |
|---|---|
| c. SUBMISSION AND O | PENING OF PROPOSALS |
| 22.Submission | The Bidder shall submit a duly signed and complete Proposal comprising the documents and forms in accordance with the requirements in the BDS. The submission shall be in the manner specified in the BDS. |
| | The Proposal 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 Proposal. |
| | Bidders must be aware that the mere act of submission of a Proposal, in and of itself, implies that the Bidder fully accepts the UNDP General Contract Terms and Conditions. |
| Hard copy (manual) submission <u>(Not applicable)</u> | Hard copy (manual) submission by courier or hand delivery is not allowed. |
| Email Submission <u>(Not</u> applicable) | Email submission is not allowed. |
| eTendering submission | Electronic submission through eTendering shall be governed as follows: |
| | a) Electronic files that form part of the proposal must be in accordance with the format and requirements indicated in BDS. |
| | b) The Technical Proposal and the Financial Proposal files MUST BE COMPLETELY SEPARATE and each of them must be uploaded individually and clearly labelled. |
| | a) The Financial Proposal file must be encrypted with a password so that it cannot be opened nor viewed until the password is provided. The password for opening the Financial Proposal should be provided only upon request of UNDP. UNDP will request password only from bidders whose technical proposal has been found to be technically responsive. Failure to provide the correct password may result in the proposal being rejected. |
| | c) Documents which are required to be in original form (e.g. Bid Security, etc.) must be sent via courier or hand delivery as per the instructions in BDS. |

| | d) 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: <u>https://www.undp.org/content/undp/en/home/procurement/business/</u> <u>resources-for-bidders</u>. |
|---|--|
| 23. Deadline for Submission of Proposals and Late | Complete Proposals must be received by UNDP in the manner, and no later than the date and time, specified in the BDS. UNDP shall only recognize the date and time that the bid was received by UNDP |
| Proposals | UNDP shall not consider any Proposal that is submitted after the deadline for the submission of Proposals. |
| 24. Withdrawal, Substitution, and | A Bidder may withdraw, substitute or modify its Proposal after it has been submitted at any time prior to the deadline for submission. |
| Modification of Proposals | Manual and Email submissions: A bidder may withdraw, substitute or modify its Proposal 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 Proposal, if any, must accompany the respective written notice. All notices must be submitted in the same manner as specified for submission of proposals, by clearly marking them as "WITHDRAWAL" "SUBSTITUTION," or "MODIFICATION" |
| | eTendering: A Bidder may withdraw, substitute or modify its Proposal by Canceling, Editing, and re-submitting the proposal 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 Proposal as needed. Detailed instructions on how to cancel or modify a Proposal directly in the system are provided in Bidder User Guide and Instructional videos. |
| | Proposals 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. Proposal Opening | There is no public bid opening for RFPs. UNDP shall open the Proposals in the presence of an ad-hoc committee formed by UNDP, consisting of at least two (2) members. In the case of e-Tendering submission, bidders will receive an automatic notification once their proposal is opened. |
| d. EVALUATION OF PRO | DPOSALS |
| 26. Confidentiality | Information relating to the examination, evaluation, and comparison of Proposals, 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. |
| | Any effort by a Bidder or anyone on behalf of the Bidder to influence UNDP in the examination, evaluation and comparison of the Proposals or contract award decisions may, at UNDP's decision, result in the rejection of its Proposal and may be subject to the application of prevailing UNDP's vendor sanctions procedures. |
| 27. Evaluation of | The Bidder is not permitted to alter or modify its Proposal in any way after |

| Proposals | the proposal submission deadline except as permitted under Clause 24 of this RFP. UNDP will conduct the evaluation solely on the basis of the submitted Technical and Financial Proposals. |
|---|--|
| | Evaluation of proposals is made of the following steps: a) Preliminary Examination b) Minimum Eligibility and Qualification (if pre-qualification is not done) c) Evaluation of Technical Proposals d) Evaluation of Financial Proposals |
| 28.Preliminary Examination | UNDP shall examine the Proposals to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, and whether the Proposals are generally in order, among other indicators that may be used at this stage. UNDP reserves the right to reject any Proposal at this stage. |
| 29.Evaluation of Eligibility and Qualification | Eligibility and Qualification of the Bidder will be evaluated against the Minimum Eligibility/Qualification requirements specified in the Section 4 (Evaluation Criteria). |
| | In general terms, vendors that meet the following criteria may be considered |
| | 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 where applicable, quality certifications, quality assurance procedures and other resources applicable to the provision of the services required. |
| | d) They are able to comply fully with UNDP General Terms and |
| | 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 and Financial Proposals | The evaluation team shall review and evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference and other RFP documents, applying the evaluation criteria, sub-criteria, and point system specified in the Section 4 (Evaluation Criteria). A Proposal shall be rendered non-responsive at the technical evaluation stage if it fails to achieve the minimum technical score indicated in the BDS. When necessary and if stated in the BDS, UNDP may invite technically responsive bidders for a presentation related to their technical proposals. The conditions for the presentation shall be provided in the bid document where required. |
| | In the second stage, only the Financial Proposals of those Bidders who achieve the minimum technical score will be opened for evaluation. The Financial Proposals corresponding to Technical Proposals that were rendered non-responsive shall remain unopened, and, in the case of |

| | manual submission, be returned to the Bidder unopened. For emailed Proposals and e-tendering submissions, UNDP will not request for the password of the Financial Proposals of bidders whose Technical Proposal were found not responsive. |
|-------------------|--|
| | The evaluation method that applies for this RFP shall be as indicated in the BDS, which may be either of two (2) possible methods, as follows: (a) the lowest priced method which selects the lowest evaluated financial proposal of the technically responsive Bidders; or (b) the combined scoring method which will be based on a combination of the technical and financial score. |
| | When the BDS specifies a combined scoring method, the formula for the rating of the Proposals will be as follows: |
| | Rating the Technical Proposal (TP): |
| | TP Rating = (Total Score Obtained by the Offer / Max. Obtainable Score for TP) x 100 |
| | Rating the Financial Proposal (FP): |
| | FP Rating = (Lowest Priced Offer / Price of the Offer Being Reviewed) x 100 |
| | Total Combined Score: |
| | Combined Score = (TP Rating) x (Weight of TP, e.g.60%) + (FP Rating) x (Weight of FP, e.g., 40%) |
| 31. Due Diligence | UNDP reserves the right to undertake a due diligence exercise, also called post qualification, 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 RFP 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 section of the s |
| | 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. |
| Proposals | may, at its discretion, ask any Bidder for a clarification of its Proposal. |

| | | UNDP's request for clarification and the response shall be in writing and no change in the prices or substance of the Proposal 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 Proposals, in accordance with RFP. |
|-----|---|---|
| | | Any unsolicited clarification submitted by a Bidder in respect to its Proposal, which is not a response to a request by UNDP, shall not be considered during the review and evaluation of the Proposals. |
| 33. | Responsiveness of Proposal | UNDP's determination of a Proposal's responsiveness will be based on the contents of the Proposal itself. A substantially responsive Proposal is one that conforms to all the terms, conditions, TOR and other requirements of the RFP without material deviation, reservation, or omission. |
| | | If a Proposal is not substantially responsive, it shall be rejected by UNDP and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission. |
| 34. | Nonconformities, Reparable Errors and Omissions | Provided that a Proposal is substantially responsive, UNDP may waive any non-conformities or omissions in the Proposal that, in the opinion of UNDP, do not constitute a material deviation. |
| | | UNDP may request the Bidder to submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Proposal related to documentation requirements. Such omission shall not be related to any aspect of the price of the Proposal. Failure of the Bidder to comply with the request may result in the rejection of its Proposal. |
| | | For Financial Proposal that has been opened, UNDP shall check and correct arithmetical errors as follows: |
| | | a) if there is a discrepancy between the unit price and the line item total that is obtained 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 UNDP 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; |
| | | b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and |
| | | c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail. |
| | | If the Bidder does not accept the correction of errors made by UNDP, its Proposal shall be rejected. |
| е. | AWARD OF CONTRAC | CT CT |
| 35. | Right to Accept, Reject, Any or All Proposals | UNDP reserves the right to accept or reject any Proposal, to render any or all of the Proposals as non-responsive, and to reject all Proposals at any time prior to award of contract, without incurring any liability, or obligation to inform the affected Bidder(s) of the grounds for UNDP's action. UNDP shall |

| | not be obliged to award the contract to the lowest priced offer. |
|--|--|
| 36. Award Criteria | Prior to expiration of the proposal validity, UNDP shall award the contract to the qualified Bidder based on the award criteria indicated in the BDS. |
| 37.Debriefing | In the event that a Bidder is unsuccessful, the Bidder may request a debriefing from UNDP. The purpose of the debriefing is to discuss the strengths and weaknesses of the Bidder's submission, in order to assist the Bidder in improving its future proposals for UNDP procurement opportunities. The content of other proposals and how they compare to the Bidder's submission shall not be discussed. |
| 38.Right to Vary Requirements at the Time of Award | At the time of award of Contract, UNDP reserves the right to vary the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions. |
| 39. Contract Signature | 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 Proposal Security, if any, and on which event, UNDP may award the Contract to the Second Ranked Bidder or call for new Proposals. |
| 40.Contract Type and General Terms and Conditions | The types of Contract to be signed and the applicable UNDP Contract General Terms and Conditions, as specified in BDS, can be accessed at <u>http://www.undp.org/content/undp/en/home/procurement/busines</u> <u>s/how-we-buy.html</u> |
| 41.Performance Security | 40.1 A performance security, if required in BDS, shall be provided in the amount specified in BDS and form available at https://popp.undp.org/ layouts/15/WopiFrame.aspx?sourcedoc=/U NDP POPP DOCUMENT LIBRARY/Public/PSU Solicitation Performa nce%20Guarantee%20Form.docx&action=default_within 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. Failure of the successful Proposer to comply shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security, in which event the Purchaser may make the award to the next lowest evaluated Proposer or call for new Proposals. |
| 42. Bank Guarantee for Advanced Payment | Except when the interests of UNDP so require, it is UNDP's preference to make no advance payment(s) (i.e., payments without having received any outputs). If an advance payment is allowed as per 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 https://popp.undp.org/layouts/15/WopiFrame.aspx?sourcedoc=/U NDP POPP DOCUMENT LIBRARY/Public/PSU Contract%20Manage |

| | ment%20Payment%20and%20Taxes_Advanced%20Payment%20Gua rantee%20Form.docx&action=default |
|-----------------------|--|
| 43.Liquidated Damages | If specified in BDS, UNDP shall apply Liquidated Damages resulting from the Contractor's delays or breach of its obligations as per the Contract. |
| 44.Payment Provisions | Payment will be made only upon UNDP's acceptance of the work performed. The terms of payment shall be within thirty (30) days, after receipt of invoice and certification of acceptance of work issued by the proper authority in UNDP with direct supervision of the Contractor. Payment will be effected by bank transfer in the currency of contract. |
| 45.Vendor Protest | 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: <u>http://www.undp.org/content/undp/en/home/operations</u> /procurement/business/protest-and-sanctions.html |
| 46. Other Provisions | In the event that the Bidder offers a lower price to the host Government (e.g. General Services Administration (GSA) of the federal government of the United States of America) for similar services, UNDP shall be entitled to 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 <u>http://www.un.org/en/ga/search/view_doc.asp?symb</u> ol=ST/SGB/2006/15&referer |

SECTION 3. BID DATA SHEET

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

| BDS No. | Ref. to Section.2 | Data | Specific Instructions / Requirements |
|------------|----------------------|---|--|
| 1 | 7 | Language of the Proposal | English |
| 2 | | Submitting Proposals for Parts or sub-parts of the TOR (partial bids) | Allowed [per Lot basis] Proposers may elect to submit offers for each or multiple Lots, however, must quote for all sites requirement under each Lot; proposal that partially meet the requirement for all sites under each lot(s) is not acceptable. |
| 3 | 20 | Alternative Proposals | Not Allowed. |
| 4 | 21 | Pre-proposal conference and Site Visit | Pre -Proposal Conference Will be Conducted Time: 01:00 pm WIB (Western Indonesia Time) OR 02:00 AM EST/EDT New York Time Date: June 24, 2021 1:00 PM Venue: Online/virtual meeting (Zoom Meeting) Link to the online meeting: https://undp.zoom.us/j/83362702928?pwd=UGpsU0wwY3Qyc0ZnS np3a1pBdXRFZz09 Meeting ID: 833 6270 2928 Passcode: ACCESSEPC Site Visit Will Not be Conducted Site visit will not be conducted by UNDP and will be replaced by a site information package containing narrative and pictures of each location-please refer to Annex 4. Site Information, Load Profile, Basic Drawing. 4.1 Site assessment data Lot 1, 2, 3, 4 4.2 Basic Drawing Lot 1, 2,3,4 4.3 Load Profile data Lot 1,2,3,4 4.4: Video of Target Locations for Lot 1,2,3,4 |

| | | | Cite Information Desig Durwing Land Durfile data and Mide of |
|---|----|--|--|
| | | | Target Locatios for Lot1,2,3,5 valid in the following link: |
| | | | https://drive.google.com/drive/folders/1SLGN1rLx2YyCOKA4- |
| | | | Site inspection by the potential proposers will be allowed at its own |
| | | | risks and cost. Potential proposers must contact the UNDP focal |
| | | | point to notify for site visits at least two (2) days in |
| | | | advance. During the site inspection, the potential proposers are |
| | | | questions regarding the bidding process shall be only addressed by |
| | | | email to UNDP. UNDP staff will not accompany the Potential |
| | | | Proposers during the site inspection. |
| | | | The UNDP focal point for the arrangement is: |
| | | | Muhammad Mubarok / Technical Officer |
| | | | Telephone: +6281281979884 |
| | | | E-mail: <u>Muhammad.mubarok@undp.org</u> |
| | | | |
| 5 | 16 | Proposal Validity Period | 120 calendar days |
| | | | |
| 6 | 12 | Bid/Proposal Security | Required in the amount of: |
| | | | Lot 1 (West Sulawesi) in the amount of USD 35,000 |
| | | | |
| | | | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 |
| | | | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 |
| | | | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 |
| | | | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security |
| | | | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security Bank Guarantee (See Form H for template) |
| | | | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security Bank Guarantee (See Form H for template) A scanned copy of this document must be attached with your |
| | | | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security Bank Guarantee (See Form H for template) A scanned copy of this document must be attached with your proposal in the system and the original must be sent by mail and shipmont tracking number must be provided |
| | | | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security Bank Guarantee (See Form H for template) A scanned copy of this document must be attached with your proposal in the system and the original must be sent by mail and shipment tracking number must be provided. |
| | | | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security Bank Guarantee (See Form H for template) A scanned copy of this document must be attached with your proposal in the system and the original must be sent by mail and shipment tracking number must be provided. The proposers shall provide the bid/proposal security according to the number of Lots they propose i.e. if a proposer quotes for more |
| | | | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security |
| | | | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security |
| 7 | 42 | Advanced Payment upon | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security Bank Guarantee (See Form H for template) A scanned copy of this document must be attached with your proposal in the system and the original must be sent by mail and shipment tracking number must be provided. The proposers shall provide the bid/proposal security according to the number of Lots they propose, i.e. if a proposer quotes for more than 1 Lot, the Bid/Proposal Security must equal the addition of the required amounts for each Lot, as specified above. |
| 7 | 42 | Advanced Payment upon signing of contract | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security |
| 7 | 42 | Advanced Payment upon signing of contract | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security • Bank Guarantee (See Form H for template) A scanned copy of this document must be attached with your proposal in the system and the original must be sent by mail and shipment tracking number must be provided. The proposers shall provide the bid/proposal security according to the number of Lots they propose, i.e. if a proposer quotes for more than 1 Lot, the Bid/Proposal Security must equal the addition of the required amounts for each Lot, as specified above. <u>Allowed up to a maximum of 20% of contract value</u> If an advance payment is USD 30,000 and above, the Proposer shall submit a Bank Guarantee in the full amount of the advance |
| 7 | 42 | Advanced Payment upon signing of contract | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security |
| 7 | 42 | Advanced Payment upon signing of contract Liquidated Damages | Lot 2 (South-East Sulawesi) in the amount of USD 35,000 Lot 3 (East Nusa Tenggara/NTT) in the amount of USD 35,000 Lot 4 (Central Kalimantan) in the amount of USD 35,000 Acceptable Forms of Bid Security • Bank Guarantee (See Form H for template) A scanned copy of this document must be attached with your proposal in the system and the original must be sent by mail and shipment tracking number must be provided. The proposers shall provide the bid/proposal security according to the number of Lots they propose, i.e. if a proposer quotes for more than 1 Lot, the Bid/Proposal Security must equal the addition of the required amounts for each Lot, as specified above. <u>Allowed up to a maximum of 20% of contract value</u> If an advance payment is USD 30,000 and above, the Proposer shall submit a Bank Guarantee in the full amount of the advance payment. Will be imposed as follows: |

| | | | Percentage of contract price per day of delay: 0.3% <i>Max. number of days of delay 30 calendar days, after which UNDP</i> <i>may terminate the contract.</i> |
|----|----|--|--|
| 9 | 41 | Performance Security | Required 10% of the total contract value. This figure will be reduced to 5% after commissioning and until the expiration of the contract, i.e. latest 24 months corresponding to after-sale service and warranty period. |
| | | | A performance security should be denominated in the currency of the contract and shall only be in one of the following forms: |
| | | | Bank Guarantee issued by a reputable Bank, the template can be found in <u>Annex 7 Template for Performance</u> <u>Guarantee</u> |
| | | | Percentage of total payment held as retention money until final certification of acceptance of all contract outputs/deliverables. The term "acceptance" shall not be equated with "mere receiving" of outputs/deliverables. |
| | | | If selected bidder opts to use retention money instead of performance security, an equal percentage will be reduced from each progress payment up to 10% of the total contract amount. This figure, 10%, will be reduced to 5% after commissioning and kept until the expiration of the 24 months of the after- sale service and warranty period. |
| | | | Within (7) days of contract signature and before issuance of the notice to proceed, the successful Bidder shall furnish a Performance Security to UNDP in the amount of 10% of the contract Value. |
| | | | The Performance Security 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. |
| | | | The proceeds of the Performance Security shall be payable to the UNDP as a compensation for any loss resulting from the Contractors' failure to complete its obligations under the contract. |
| 10 | 13 | Currency of Proposal | US Dollar for international contractor; Indonesian Rupiah for local contractor |
| 11 | 18 | Deadline for submitting requests for clarifications/ questions | (7) working days before the submission deadline. |
| 12 | 32 | Contact Details for submitting clarifications/questions | Focal Person in UNDP: Fatima Abu Snaineh /Martin Kurnia Address: Menara Thamrin 7th Fl. Jl. MH Thamrin Kav. 3 Jakarta 10250, Indonesia E-mail address: <u>fatima.snaineh@undp.org</u> |

| | | | Cc: martin.kurnia@undp.org | |
|----|------------------|--|---|--|
| 13 | 18, 19 and 21 | Manner of Disseminating Supplemental Information to the RFP and responses/clarifications to queries | Direct communication to prospective Proposers through e- Tendering. | |
| 14 | 23 | Deadline for Submission | The deadline as indicated in the e-tendering system. Please note the system shows EST/EDT (New York) time zone. Note: Bids are deemed as valid and submitted only if they are in "Posted" status. Bids in "Saved for later" are not accepted by the system as submitted bids. Please refer to user guidelines for more details on how to post the bids. Please do not leave it for the last moment to post of the bid. If you face challenges with the system at the last moment, there will be no possibility for technical support. | |
| 15 | 22 | Allowable Manner of Submitting Proposals | e-Tendering | |
| 16 | 22 | Proposal Submission Address | https://etendering.partneragencies.org Business Unit and Event ID: Business Unit : IDN10 Event ID: 0000009468 | |
| 17 | 22 | Electronic submission (eTendering) requirements | Format: PDF files only File names must be maximum 60 characters long and must not contain any letter or special character other than from Latin alphabet/keyboard. All files must be free of viruses and not corrupted. Password for technical proposal <u>must</u> not be provided to UNDP until the date as indicated in No. 14 Not applicable. Password for financial proposal <u>must</u> not be provided to UNDP until requested by UNDP. Max. File Size per transmission: Not applicable. Documents which are required in original (e.g. Bid/Proposal Security) should be sent to the below address with a PDF copy submitted as part of the electronic submission: Menara Thamrin 7th Fl. Jl. MH Thamrin Kav. 3 Jakarta 10250, Indonesia Attn. Martin Kurnia; Fatima Abu Snaineh | |
| 18 | 27 | Evaluation Method for the Award of Contract | Combined Scoring Method, using the 60%-40% distribution for technical and financial proposals respectivelyCombined Scoring Method, using the 60%-40% distribution for technical and financial | |

| | 36 | | proposals respectivelyCombined Scoring Method, using the 60%-40% distribution for technical and financial proposals respectively The minimum technical score required to pass is 70%. To be noted that Eligibility for components will be evaluated on Pass/Fail basis. If minimum criteria are met in conformity with Section 5 Terms of Reference-III Approach and Methodology, V Technical Specifications for off-grid solar power plants components, the evaluation will be a Pass. Hence, for the components there isn't any scoring allocated. It will be evaluated ONLY on a PASS/FAIL basis. Annex-6 Technical evaluation form will be used as a minimum compliance check of all components of the PV grid system. |
|----|----|--|---|
| 19 | 31 | Due Diligent | As part of post qualification, UNDP will conduct capacity verification and validation to a proposer who already awarded one UNDP Contract. UNDP will also check the credit rating of recommended proposer from Dunn & Bradstreet or equivalent and will award the contract only if the proposer has capacity to implement more than one contracts and has satisfactory result on the credit rating. |
| 20 | | Expected date for commencement of Contract | September 15, 2021 |
| 21 | | Maximum expected duration of contract | 970 days (32 months) |
| 22 | | Contract Award for Lots | To one or more Proposer, depending on the following factors: a) Complying with Terms of Reference b) Accepting UNDP General Terms and Conditions c) Technical responsiveness/Full compliance to requirements d) Highest Combined Scores per LOT. A Proposer may submit proposal for one Lot or more than one Lot. Therefore, the selection for each Lot will be subject to the following additional considerations: 1) In order to ensure the Best Value for Money Principle, UNDP will award the contract on lot(s) basis to the highest combined score for each Lot. 2) In the event where a proposer emerges as highest combined score for more than one Lot, UNDP has the right to not award the contract to the highest combined score if the proposer has no proven capacity to perform the works concurrently on the proposed Lots. The proposer in subject will be awarded according to assessed and proven capacity. Determination on which Lot to be awarded will be based on the following order: |

| | | | - Lot(s) where there is no other responsive proposal |
|----|----|--|---|
| | | | received. |
| | | | - Lot with most score difference to the next ranked proposer. In such case, the criteria for not awarding to the highest combined score proposal will be based on calculating the least score difference between the highest and next ranked proposer. |
| | | | Irrespectively of determined capacity to undertake more than one Lot, UNDP may decide at its own discretion to award Lots to different proposers to reduce risk of completion. |
| 24 | 40 | Type of Contract | Contract for Civil Works for UNDPContract for Civil Works for UNDPContract for Civil Works for UNDP |
| | | | http://www.undp.org/content/undp/en/home/procurement/busin ess/how-we-buy.html |
| 25 | 40 | UNDP Contract Terms and Conditions that will apply | UNDP General Terms and Conditions for Civil WorksUNDP General Terms and Conditions for Civil WorksUNDP General Terms and Conditions for Civil Works |
| | | | Please see <u>Annex 1</u> for the Contract for Civil Works template, <u>Annex 2</u> for the General Terms and Conditions for Contract for Civil Works, and <u>Annex 3</u> for UN Supplier Code of Conduct. |
| 26 | | Other Information Related to the RFP | 1. Amendments to RFP may be issued latest 5 working days prior to the Deadline for Submission of Proposals. Amendment and other supplementary information will be posted in online eTendering System. |
| | | | 2. Contract effectiveness is linked below mentioned conditions: |
| | | | Upon receipt of valid Performance Security; and Upon contract signing from both parties. |
| | | | 3. While entering the financial proposal in the e-Tendering system, always mention your bid price as 1. Please do not mention the value of your financial proposal in the e-Tendering system. It should only be mentioned in the Password-protected forms on Financial Proposal Submission Form (Form F) and Financial Proposal Form (Form G). The proposals of the companies who will reveal the value of their financial proposal in the eTendering system will automatically be disqualified. If you propose multiple lot(s), you must submit separate financial and technical proposal for each lot, do not submit a merged financial and technical proposal. |

SECTION 4. EVALUATION CRITERIA

Preliminary examination Criteria

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

- Appropriate signatures
- Power of Attorney
- Minimum documents provided
- Technical and Financial Proposals submitted for each lot separately
- Bid Validity
- Bid Security submitted as per RFP requirements with compliant validity period

Minimum Eligibility and Qualification Criteria

Eligibility and Qualification will be evaluated on Pass/Fail basis

If the Proposal is submitted as a joint Venture/Consortium/Association, each member should meet minimum criteria, unless otherwise specified in the criterion.

1. Eligibility

| Subject | Criteria | Document Submission requirement | | | |
|---|--|--|--|--|--|
| 1. ELIGIBILITY | | | | | |
| Legal Status | Vendor is a legally registered entity. | Form B: Bidder Information Form | | | |
| Eligibility | Vendor is not suspended, nor debarred, nor otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization in accordance with RFP clause 3. | Form A: Technical Proposal Submission Form | | | |
| Conflict of Interest | No conflicts of interest in accordance with RFP clause 4. | Form A: Technical Proposal Submission Form | | | |
| Bankruptcy | Not declared bankruptcy, not involved in bankruptcy or receivership proceedings, and there is not judgement or pending legal action against the vendor that could impair its operations in the foreseeable future | Form A: Technical Proposal Submission Form | | | |
| | | | | | |
| 2. QUALIFICATION | | | | | |
| History of Non-Performing Contracts [*] | Non-performance of a contract did not occur as a result of contractor default for the last 3 years | Form D: Qualification Form | | | |

^{*} Non-performance, as decided by UNDP, shall include all contracts where (a) non-performance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Non-performance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism. Non-performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted.

| Litigation History | No consistent history of court/arbitral award decisions against the Proposer for the last 3 years | Form D: Qualification Form |
|----------------------|---|---------------------------------------|
| Previous Experience | Lot 1/2/3/4: Valid Business licenses issued by respective government in Engineering, Procurement and Construction (EPC) in electricity sector or civil construction or equivalent fields. Minimum 3 years of relevant experience in engineering, procurement, construction of Solar PV power plant projects over the last 5 years. (For JV/Consortium/Association, all Parties cumulatively should meet requirement) Lot 1/2/3/4: Minimum 2 performing contracts of similar value or nature and complexity implemented over the last 5 years, irrespective of number of Lots that the bidder will apply. Supported by evidence of satisfactory performance letters by the two clients. Similar nature of experience in designing, procurement and construction of Solar PV off-grid power generation, distribution and installation with Energy Storage System (ESS) in rural area. Similar - value for a minimum solar PV system with total installed capacity of: Lot 1 (West Sulawesi): 0.2 MWp Lot 2 (South-East Sulawesi): 0.4 MWp Lot 3 (East Nusa Tenggara/NTT): 0.2 MWp Lot 4 (Central Kalimantan): 0.2 MWp | Form D: Qualification Form |
| Technical Conformity | Eligibility will be evaluated on Pass/Fail basis. If minimum criteria are met as specified in Technical Specification section, the evaluation will be a Pass. Hence, for the below components there isn't any scoring allocated. It will be evaluated ONLY on a PASS/FAIL basis. The bidder needs to comply with the Technical Conformity before they are eligible for further evaluation and scoring of the technical proposal. standards for design of the off-grid solar PV power plant system and meeting minimum criteria which is recognized by national and international standards, further detailed is available in Section 5 Terms of Reference-III Approach and | Annex 6: Technical Evaluation Form |

| | Methodology, V Technical Specifications, for the below equipment: | |
|--------------------|--|-------------------------------|
| | | |
| | a. Photovoltaic Modules | |
| | b. Solar Charge Controller (for DC coupling) or PV inverter (for AC coupling). | |
| | c. Battery/Off-Grid Inverter | |
| | d. Battery Storage System | |
| | e. Remote Monitoring System, Prepaid Metering System, & Energy Limiter | |
| | f. Distribution Lines, Street Light, and Household Connection | |
| | g. PV mounting system | |
| | h. Power House | |
| Financial Standing | Minimum average annual turnover for the last 3 years (2018, 2019, 2020): | Form D: Qualification Form |
| | If proposer participates on: | |
| | Lot 1 (West Sulawesi) in amount of USD 3,000,000 | |
| | Lot 2 (South-East Sulawesi) in amount of USD 6,100,000 | |
| | Lot 3 (East Nusa Tenggara/NTT) in amount of USD 4,500,000 | |
| | Lot 4 (Central Kalimantan) in amount of USD 3,000,000 | |
| | If the proposer submit a proposal for more than 1 Lot, they have to prove financial capacity for 70% of the minimum average annual turnover requirement for all of the proposed Lots. | |
| | For example: if bidder applies for Lot 1 and Lot 2, the total required minimum average annual turnover is 70% *(USD 3,000,000 + USD 6,100,000) = USD 6,370,000 | |
| | (For JV/Consortium/Association, all Parties cumulatively should meet requirement) | |
| | Note: | |
| | UNDP has the right to reject any proposal if submitted by a contractor whom investigation leads to a result that he/she is not Financially capable and/or had serious financial problems. | |
| | Proposer must demonstrate the current soundness of its financial standing and indicate its prospective long-term profitability, which can include the following but not limited to: | |
| | Quick Ratio (QR) of not less than 1.0; proposers may use the form of Balance Sheet to calculate QR. If QR is less than | |

| 1, UNDP shall verify financial capacity of the proposer and has the authority to seek references from concerned parties & banks on the proposer's financial standing. | |
|---|--|
| UNDP reserves the right to reject any proposal if submitted by a contractor whom the investigation leads to a result that he/she is not financially capable and/or had serious financial problems. | |
| Liquid assets and/or credit facilities , net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of no less than: | |
| - USD 300,000 for Lot 1 (West Sulawesi) | |
| - USD 610,000 for Lot 2 (South-East Sulawesi) | |
| - USD 450,000 for Lot 3 (East Nusa Tenggara/NTT) | |
| - USD 300,000 for Lot 4 (Central Kalimantan) | |
| If proposer participates in more than one LOT , Liquid assets and/or credit facilities, should be calculated as 70% from the sum of the respective Liquid assets and/or credit facilities for each LOT. (e.g. if Proposer participates in LOT 1 and 2, then the 'Liquid assets and/or credit facilities should be 70% * USD 910,000). | |
| Proof of access to lines of credit via an official unconditional bank credit letter (an official letter from bidder's bank certifying the actual approved credit facilities ceiling and balances of all active accounts within the bank). | |
| UNDP may additionally request a copy of the bank account statements including a summary of the financial transactions which have occurred over the past two years period on a bank account/accounts held by the business reflecting the account balance at the beginning and end of the period, total withdrawals, and total deposits. | |
| (For JV/Consortium/Association, all Parties cumulatively should meet requirement) | |
| | |

3. Detailed Technical Evaluation

| Summary of Technical Proposal Evaluation Forms | | Points Obtainable |
|--|---|----------------------|
| 1. | Bidder's Qualification, Capacity, and Experience | 200 |
| 2. | Proposed Methodology, Approach, and Implementation Plan | 300 |

| 3. | System Design Conformity | 350 |
|----|--------------------------------------|------|
| 4. | Project Management and Key Personnel | 150 |
| | Total | 1000 |

| Section 1. Bidder's qualification, capacity and experience | | Points obtainable |
|--|--|----------------------|
| 1.1 | Reputation of Organization and Staff Credibility / Reliability / Industry Standing More than 3 years of experience in design engineering, construction of centralized off-grid solar PV power generation with Energy Storage System (ESS) project – 15 points for each additional year (max 45 points) | 45 |
| 1.2 | Organization capabilities which are likely to enhance or impede implementation: Strength of project management controls, in terms of in-country resources allocated for this project – 10 points if in-country resources is allocated. Extent to which any work would be subcontracted – maximum 15 points Excellent if <10% of work is sub-contracted (15 points); Acceptable if 10% - 30% of work is sub-contracted (10 points); Marginal if >30% of work is sub-contracted (5 points). Evidence of internal Standard Operating Procedure (SOP) for quality assurance procedures and risk mitigation measures – maximum 10 points Excellent (10 points) Acceptable (6 points) Marginal (3 points) | 35 |
| 1.3 | Relevance of specialized knowledge and experience on similar engagements completed Local experience in engineering, construction of centralized off-grid solar PV power generation system with ESS project in outlying South East Asia areas, particularly Indonesia, 10 points per year and relevant project in each country (if more than 1 in parallel) up to maximum 40 points. Evidence of abilities to conform with national/international standards for system design and regulations by providing information on what reference standards and regulations have been applied in the previous relevant experiences. – maximum 30 points Excellent (30 points) Acceptable (20 points) Marginal (10 points) | 70 |
| 1.4 | Organizational commitment to sustainability Organization is compliant with ISO 14001 or ISO 14064 or equivalent and ISO 45001 or OHSAS 18001 or equivalent – 10 points per certificate (max 40) Organization demonstrates significant commitment to sustainability through some other means-, for example public diplomacy policy, internal company policy documents on women empowerment, membership to UN Global | 50 |

| | Compact, renewable energies or membership of trade institutions promoting such issues – 5 points per evidence of commitment (max 10) | |
|--------|--|----------------------|
| | Total Section 1 | 200 |
| Sectio | n 2. Proposed Methodology, Approach and Implementation Plan | Points obtainable |
| 2.1 | Understanding of the requirements: The important aspects of the task been addressed in sufficient detail (project objective, outputs, scope of works, site analysis)? maximum 50 points Excellent if all scope of work [Referring to Section 5. TOR, III. Approach and Methodology, Part I to Part IV] are addressed for each of site (50 points) Acceptable if all scope of work Part I to Part IV are addressed but general in site analysis (35 points) Marginal if only partial scope of work are addressed (15 points) Does the solution provided based on proven, recent and available technology/approach in the market and the reasons why this solution is chosen to deliver the required scope of work? maximum 40 points Excellent if proposed solution to deliver all scope of work [Referring to Section 5. TOR, III. Approach and Methodology, Part I to Part IV] are proven, recent and available technology/strategy (40 points) | 90 |
| 2.2 | Acceptable if proposed solution to deliver approximately 50% scope of work are proven, recent and available technology/strategy (27 points) Marginal if proposed solution to deliver <50% scope of work are proven, recent and available technology/strategy (14 points) Description of the Offeror's methodology and approach for meeting or | |
| 2.2 | exceeding the requirements of the Section 5. Terms of Reference within scope of works Part I to Part IV that consist of (a) Engineering Design, (b) Procurement and Construction of solar PV power plant, (c) Training programme, and (d) After sales warranty: Details on methodology, approach and implementation plan for delivering a) Engineering Design and b) Procurement and Construction of solar PV power plant. How will be organized, controlled effectively and delivered in sustainable manner by providing at the minimum project execution plan for pre, during and post construction showing how, when and by whom all expected outputs will be achieved; and approach to ensure sustainability of outputs (including procurement plan, mobilization plan, staffing schedule, construction plan, after sales maintenance plan, inventories and spare parts acquisition plan, testing and commissioning, etc) maximum 80 points Excellent – if methodology, approach and implementation plan for part a and b are well explained; no significant weakness noted. (80 points) Acceptable – if methodology, approach and implementation plan for part a and b are explained, weaknesses can be readily corrected. (60 points) Marginal – if methodology, approach and implementation plan for part a and b are partially explained, significant deficiencies, but correctable. (40 points) Poor – if methodology, approach and implementation plan for part a and b are partially explained, significant deficiencies, but correctable. (40 points) Poor – if methodology, approach and implementation plan for part a and b are partially explained, significant deficiencies, but correctable. (40 points) Poor – if methodology, approach and implementation plan for part a and b are partially explained, significant deficiencies, but correctable. (40 points) | 170 |

| | Total Section 2 | 300 |
|-----|---|-----|
| | Provision of warranty guideline claim for main components from the component's manufacturer and technical manual for basic troubleshooting and SOP for regular O&M in Indonesian language – maximum 10 points Excellent (10 points) Acceptable (6 points) Marginal (3 points) | |
| | Provision of component's replacement, technical services including on-site support within 14 days, including establishment of local repair/maintenance facility – maximum 15 points. Excellent (15 points) Acceptable (10 points) Marginal (5 points) | 40 |
| | Provision and detail plan for a minimum two years after-sales service warranty period (including corrective and condition-based maintenance) after commissioning – maximum 15 points Excellent (15 points) Acceptable (10 points) Marginal (5 points) | |
| 2.3 | Demonstrated ability to provide After-sales service warranty | |
| | Excellent (35 points) Acceptable (22 points) Marginal (10 points) | |
| | Availability of Social and Environmental risk management plan and risk mitigation measures provided in sufficient detail - maximum 35 points | |
| | Acceptable (16 points) Marginal (08 points) | |
| | Availability of performance monitoring and evaluation mechanisms and tools provided in sufficient detail; how they shall be adopted and used to deliver all scope of works - maximum 25 points Excellent (25 points) | |
| | Acceptable – if methodology, approach and implementation plan for training program are explained, weaknesses can be readily corrected. (20 points) Marginal if methodology, approach and implementation plan for part a and b are partially explained, significant deficiencies, but correctable. (10 points) | |
| | plan) – maximum 30 points Excellent – if methodology, approach and implementation plan for training program are well explained; no significant weakness noted. (30 points) | |
| | - Details on methodology, approach and implementation plan for delivering Training programme curriculum for local operator (including on-the job training | |

| Section 3. System Design Conformity | | | Points obtainable |
|-------------------------------------|--|----|----------------------|
| 3.1 | Compliance with conformity requirements relating to design features and the product's ability. Minimum requirements are captured in Section 5 Terms of Reference-III Approach and Methodology, IV Design Considerations. | | |
| | If minimum criteria are met as specified in Design Considerations, the maximum score will be given except for some design requirements where additional points will be allocated only if they demonstrate to have additional features. Therefore, additional scoring is anticipated for functionalities surpassing the minimum criteria, as per below: | | |
| | a) Design for redundancy – max 50 points | | |
| | Design requirement as per Section 5 Terms of Reference-III Approach and Methodology, IV Design Considerations (35 points). | | |
| | Excellent (35 points) | | |
| | Acceptable (23 points) | | |
| | Marginal (12 points) | 50 | |
| | Additional scoring: maximum 15 points, related to: | | |
| | How is the modular solution ensuring power highest redundancy and minimal service interruption? | | 350 |
| | Additional 3 points up to maximum 15 points will be given for each additional "n" value redundancy for Inverter and DC MPPT solar charger or PV inverter. | | |
| | b) Design for reliability – 90 points | | |
| | Design requirement as per Section 5 Terms of Reference-III Approach and Methodology, IV Design Considerations (maximum 70 points) | | |
| | Excellent (70 points) | | |
| | Acceptable (47 points) | | |
| | Marginal (24 points) | | |
| | Additional scoring: maximum 20 points, related to: | 90 | |
| | How is the solution proposed managing to extend lifetime of solar PV modules and energy storage system beyond from the minimum requirement? | | |
| | maximum 10 points is given for solar PV modules designed to last for more than 20 years with power degradation of maximum 10%. | | |
| | maximum 10 points is given for ESS designed to last for more than 5 years under daily solar cycling conditions. | | |

| c) Design for safe socio-environment and operations – 80 points | | |
|--|-------------|-----|
| Design requirement as per Section 5 Terms of Reference-III Approach and Methodology, IV Design Considerations (maximum 60 points). Excellent (60 points) | | |
| Acceptable (40 points) | | |
| Marginal (20 points) | | |
| | | |
| Additional scoring: maximum 20 points, related to: | 00 | |
| Is the solution offered (in terms of protection measures, materials | 80 | |
| proposed, design of components, etc.) preventing from risks to | | |
| nappening? | | |
| A maximum to points is given if the distribution system able to detect ground-fault | | |
| • A maximum 10 points is given if the materials used (batteries, | | |
| poles) proven to be environmentally friendly and maintenance- | | |
| free. | | |
| d) Design for system expansion and grid arrival - 40 points | | |
| Design requirement as per Section 5 Terms of Reference-III Approach | | |
| and Methodology, IV Design Considerations (30 points) | | |
| Excellent (30 points) | | |
| Acceptable (20 points) | 40 | |
| Marginal (10 points) | 10 | |
| | | |
| Additional scoring: maximum 10 points, related to: | | |
| Maximum To points is given for AC coupling system. | | |
| e) Design for efficiency- 90 points | | |
| Design requirement as per Section 5 Terms of Reference-III Approach | | |
| Quantity (without price) (60 points) | | |
| | | |
| Additional scoring: maximum 30 points, related to: | 2.2 | |
| reaching the end-user? | 90 | |
| • Maximum 15 points is given if power generated losses in the | | |
| distribution system is less than 10%. | | |
| maximum is points is given if the power optimizer is installed for each of photovoltaic module. | | |
| · | | |
| Tota | l Section 3 | 350 |
| | | |

| Section 4. Management Structure and Key Personnel | | | Points obtainable |
|---|--|----------|----------------------|
| 4.1 | Composition and structure of the team proposed . Are the proposed roles of the management and the team of key personnel suitable for the provision of the necessary services? | | |
| | - Team leader (1 per lot) | | |
| | - Site managers (1 per village) | | 20 |
| | - Electrical engineer (1 per lot) | | |
| | - Civil engineer (1 per lot) | | |
| | - Social-Environmental Compliance Specialist (1 per Contract) | | |
| 4.2 | Qualifications of key personnel proposed | | |
| 4.2 a | Team leader (1 per Lot) Responsible in managing, overseeing and delivering outputs of the assignment key communication person with UNDP. | ment and | 30 |
| | Specific experience relevant to the assignment – at least 5 years – max 10 points | 10 | |
| | - Regional/Indonesia experience – max 10 points | 10 | |
| | Minimum Bachelor's degree in Civil/Electrical/Mechanical engineering – max 5 points | 5 | |
| | Certification in electrical power engineering, solar PV design, or project management or construction management – max 5 points | 5 | |
| 4.2 b | Site managers (1 per village) | | |
| | Responsible in managing implementation all the works at the location. | | 40 |
| | Specific experience relevant to the assignment – at least 3 years – max 15 points | 15 | |
| | - Regional/Indonesia experience – max 10 points | 10 | |
| | - Speaking Indonesian language – max 5 points | 5 | |
| | Minimum Bachelor's degree in Civil/Electrical/Mechanical engineering - max 5 points | 5 | |
| | Certification in project management or construction management - max 5 points | 5 | |
| 4.2 c | Electrical engineer (1 person/Lot) Responsible in designing a high-quality electrical design and installation | | 20 |
| | pecific experience relevant to the assignment – at least 2 years - max 10 points | 10 | |
| | Minimum Bachelor's degree in Electrical engineering - max 5 points | 5 | |
| | Competency certification in electrical power engineering and/or Solar PV - max 5 points | 5 | |
| | Civil engineer (1 person/Lot) Responsible in designing a high-quality civil design and civil work | | 20 |
|---|--|-------------|-----|
| 4.2 d | - Specific experience relevant to the assignment – at least 2 years - max 10 points | 10 | |
| | - Minimum Bachelor's degree in Civil engineering - max 5 points | 5 | |
| | - Competency certification in construction - max 5 points | 5 | |
| 4.2 e Forcial-Environmental Compliance Specialist (At least 1 person/Contract)* Responsible in implementing social, environmental risk assessment and develop risk management plan; develop mechanism and address/channel complaint and grievance during assignment, facilitate communication with the community. | | 20 | |
| | Specific experience relevant to the assignment – at least 2 years max 10 points | 10 | |
| | - Regional/Indonesia experience - max 5 points | 5 | |
| | Minimum Bachelor's degree in Environmental engineering, Social Science, Development Studies, or other relevant majors - max 5 points | 5 | |
| in case bidder wins more than one Lot they will only be required to provide at least one Social-Environmental Compliance Specialist. | | e person as | |
| | Tota | l Section 3 | 150 |

Engineering Design, Procurement, and Construction for Centralized Off-Grid Solar PV Power Generation System in 23 Villages in Indonesia

I. PROJECT DESCRIPTION

A. Background and the project objectives

In alignment with the UNDP Strategic Plan to reduce inequality, the acceleration of access to electricity using locally available renewable resources is a strategic intervention. Notably because there are about 2,000 villages in Indonesia without sustainable access to power, and there are 17,000 islands in Indonesia that makes national grid interconnection is costly. Similar development challenge is faced by Timor-Leste government. Provision of electricity and clean water is challenging for remote communities.

Alternative solution is to generate electricity from solar photovoltaic (PV) power plant with battery system as source of sun rays is abundant, this technology is technically advancing, cost is getting more economic, relatively easy to install, and it generates clean and sustainable energy. In addition, solar PV Plants is supporting the both country's commitment to increase contribution of renewable energy by 2030. Not only solar PV Plants will provide a reliable and clean energy access for rural areas, but it can also enabling growth and livelihood. Access to energy can support social, educational, and health infrastructure in the village. Moreover, economy can grow by utilizing the energy for income generating or productive activities. ACCESS has been designed to accelerate sustainable transition through the implementation of renewable energy projects that can positively contribute to sustainable development goals.

With the above context, UNDP is currently implementing a four-year (2020-2023) project titled *Accelerating Clean Energy Access to Reduce Inequality* (ACCESS) in Indonesia and Timor-Leste with funding support from the Korea International Cooperation Agency (KOICA) Indonesia. UNDP Indonesia acts as the coordinator for ACCESS project implementation in partnership with KOICA, Indonesia Ministry of Energy & Mineral Resources, Ministry of State Administration of Timor-Leste, and UNDP Timor-Leste.

The ACCESS project's objective is to provide the poor and most vulnerable communities equitable and sustainable access to basic services required for improving livelihoods. To achieve the objective, ACCESS will implement activities that will produce following outputs:

Output 1 (ACCESS Project Indonesia): Renewable-based power plants built providing sustainable access to electricity for remote villagers in Indonesia with institutional and local capacity in place.

ACCESS Project Indonesia main activities:

- Designing a system to create, store, distribute and transmit energy to households in 23 remote locations through a centralized solar PV off-grid power plant. The solution must include the design of distribution lines, household ands public infrastructure connections to provide access to electricity for households in 23 targeted villages of 4 Provinces in Indonesia that can be monitored remotely. The targeted provinces are West Sulawesi, Southeast Sulawesi, East Nusa Tenggara/NTT, and Central Kalimantan Provinces.
- 2. Design and conduct social and environmental risk assessment and risk mitigation measures.
- 3. Building local capacity to operate and maintain built energy infrastructures.
- 4. Building local institutions to enhance sustainability and scaled-up use of built energy infrastructures.
- 5. Disseminating results and reach-out for scaling up.

Output 2 (ACCESS Project Timor-Leste): Under SSTC between Indonesia and Timor-Leste, solar PV water pumps and Highly Efficient Solar Lamp System (LTSHE) are installed in remote villages in Timor-Leste,

providing sustainable access to clean water and lighting. This Output 2 will be conducted under separate procurement process.

At the end of the project, with minimum 30% of women as direct beneficiaries and in compliance with socialenvironmental safeguards, ACCESS is expected to result in access to electricity to at least 20,000 people in Indonesia and Timor-Leste, and access to water to 3,500 people in Timor-Leste from the total installation of about 1.2 Mega Watt decentralized solar-PV power plants, improve the technical capacity of 80 local people and enhance the sustainability of built clean energy infrastructure at the village level by establishment of local energy service institutions.

B. Specific Objectives

The objective of this assignment is to select highly qualified Engineering, Procurement and Construction (EPC) company(s) as Contractor to provide following services in 23 locations for UNDP-ACCESS Project Indonesia:

- 1. Detail Engineering Design for:
 - a. centralized off-grid solar PV power plants;
 - b. distribution lines;
 - c. household & public infrastructure connections ensuring minimal power generated losses at the end user over time;
 - d. construction works.
- 2. Procurement, Construction, Commissioning and Testing centralized off-grid solar PV power plants, distribution lines, and household & public infrastructure based on the detail engineering design.
- 3. Design and implementation of operation and maintenance training programme for local operators.
- 4. Provide 2 years after sales service and warranty.

The target receiving 23 villages are located in remote Indonesia. Each village is characterized by unique cultural that needs to be respected. The contractor should be aware of local socio-environmental values and potential risks that are associated with pre-construction, construction, and post construction phase. Therefore, social and environmental risk assessment and risk mitigation measures should be conducted by the contractor as part of services by following the UNDP's Social-Environmental Screening Procedure (Annex 5).

II. SCOPE OF SERVICES AND EXPECTED OUTPUTS

The contractor is expected to conduct the scope of work and to deliver expected outputs as stated in **Table 1 within 32 months (8 months from contract issuance date for Output 1,2,3, 4 and two years from the commercial operation date for Output 5).** The service and outputs as indicated in Table 1 is applicable for all 23 locations in 4 target provinces of West Sulawesi, South-East Sulawesi, East Nusa Tenggara, and Central Kalimantan (Table 2).

The engineering, procurement, construction, training and after sales service shall be implemented with high conformity and recognized technical specification as detailed in Annex 6 and in compliance with UNDP's social and environmental standard as stated in Annex 5.

| Scope of Work | Expected outputs |
|---|--|
| Conduct Detailed Engineering Design to ensure constructability of centralized off- grid solar PV power plant system able to generate, store, transform and distribute the power to the end users, including household & public infrastructure connection. Design and conduct social and environmental risk assessment and risk mitigation measures Conduct Procurement, Construction, Commissioning and Testing Solar the centralized off-grid solar PV Power Plant, distribution lines, and household & public infrastructure connection with high technical quality and in compliance with social and environmental standards. Design and implement operation and maintenance training programme for Local Operators Provide After Sales Service and Warranty | Detailed engineering design of 23 centralized off-grid solar PV power plant system in ACCESS project target locations (Table 2) including social and environmental risks assessments and risk mitigation measures. Timely procurement, construction, commissioning and well performing 23 centralized off-grid solar PV power plant system in ACCESS project target locations (Table 2) in compliance with social and environmental standards. Provision of operation and maintenance manual and on the job training for at least 6 local operators in each of 23 target location. Provision of manufacturer's warranty claim procedures for main solar PV components and two years maintenance warranty period all-inclusive for spare- parts replacement, installation, transportation and service personnel. |
| | |

Table 2. Locations for Construction of Centralized Off-Grid Solar PV Power Plants of ACCESS Project Indonesia

| Sr. No | Province | District | Sub-District | Village | GPS Coordinates of the Villages | Number of Connection | HH's Energy /day | Total Energy Needs (Wh) /day |
|--------|------------|------------------|------------------|-----------------------------------|------------------------------------|----------------------------|---------------------|------------------------------------|
| 1 | | Mamasa | Tabulahan | Pangandaran | 2°45'05.3"S 119°04'16.5"E | 227 | 550Wh | 236210 |
| 2 | West | Mamasa | Tabulahan | Saluleang | 2°46'01.7"S 119°16'58.0"E | 114 | 550Wh | 127171 |
| 3 | Sulawesi | Mamuju | Tapalang | Kopeang | 2º 50' 47.35'' \$ 118º 59' | 216 | 600Wh | 259604 |
| 4 | | Mamuju | Tommo | Leling Utara (Dusun Buntu | 02°10'14.12"S 119°29'36.78"E | 115 | 600Wh | 145544 |
| 5 | | Bombana | Kabaena Barat | Desa Baliara (Dusun Pulau Baliara | 5º 09' 50.86" \$ 121º 48' 41.72 | 103 | 600Wh | 121965 |
| 6 | | Bombana | Kabaena Barat | Desa Baliara (Dusun Pulau Bangko | 5°10'02.0"S 121°48'39.5"E | 148 | 600Wh | 166813 |
| 7 | South-Fast | Bombana | Kabaena Tengah | Lengor (Dusun Boepapa) | 5º 04' 48.59"S 121º 58' 28.09" | 155 | 600Wh | 159957 |
| 8 | Sulawasi | Muna | Towea | Wangkolabu | 4º 31' 8.70"S 122º 43' | 168 | 900Wh | 255172 |
| 9 | Sulawesi | Muna Barat | Tiworo Utara | Tasipi | 4º 37' 15.15"S 122º 20' | 180 | 900Wh | 268926 |
| 10 | | Konawe Selatan | Laonti | Tambolosu | 4º 09' 36.36"S 122º 46' 36.76" | 307 | 600Wh | 310865 |
| 11 | | Konawe Selatan | Laonti | Malaringgi | 4º 20' 1.29"S 122º 53' 35.99"E | 178 | 900Wh | 266708 |
| 12 | | Sumba Barat | Laboya Barat | Gaura (Dusun 4) | 9°43'44.2"S 119°15'57.6"E | 131 | 600Wh | 117442 |
| 13 | | Sumba Barat | Lamboya | Watukarere (Dusun 2) | 9°44'27.4"S 119°22'22.3"E | 97 | 450Wh | 98253 |
| 14 | | Sumba Barat Daya | Wawewa Tengah | Eka Pata 2 (Dusun 1 & 2) | 9°35'35.88"S 119°17'34.63"E | 111 | 450Wh | 106631 |
| 15 | East Nusa | Sumba Barat Daya | Wawewa Tengah | Eka Pata 1 (Dusun 3) | 9°34'42.24"S 119°16'43.11"E | 71 | 450Wh | 79829 |
| 16 | Tenggara | Sumba Barat Daya | Wawewa Timur | Dangga Mango (Dusun 1) | 9°38'50.33"S 119°16'22.16"E | 75 | 450Wh | 85550 |
| 17 | | Sumba Barat Daya | Wawewa Timur | Dikira (Dusun 4) | 9°38'20.36"S 119°16'57.64"E | 75 | 450Wh | 85550 |
| 18 | | Sumba Barat Daya | Wawewa Timur | Mata Wee Lima (Dusun 2) | 9°33'30.9"S 119°23'06.4"E | 137 | 450Wh | 126406 |
| 19 | | Sumba Barat Daya | Wewewa Selatan | Milla Ate (Dusun 1) | 9°37'40.0"S 119°10'34.8"E | 83 | 450Wh | 83433 |
| 20 | | Barito Selatan | Dusun Selatan | Muara Ripung | 1°41'40.9"S 114°48'26.6"E | 122 | 900Wh | 182257 |
| 21 | Central | Barito Selatan | Gn. Bintang Awai | Bintang Ara | 1°27'33.5"\$ 115°17'29.8"E | 102 | 450Wh | 93162 |
| 22 | Kalimantan | Lamandau | Bulik Timur | Batu Tunggal | 1°48'37.5"S 111°38'49.1"E | 246 | 650Wh | 270519 |
| 23 | | Lamandau | Bulik | Tamiang | 1°59'51.8"S 111°25'18.5"E | 145 | 600Wh | 159514 |

Number of connection includes HHs, public infrastructure, and productive activities facility. Total Energy Needs include oversizing 30%, losses, powerhouse self-consumption, and other loads. Detail information can be seen in Annex 4.

III. APPROACH AND METHODOLOGY

Applicable in all the 23 target locations, the scope of the required services (scope of work) is divided into the following four parts:

- **Part I**: Detailed Engineering Design to ensure constructability of centralized off-grid solar PV power plant system able to generate, store, transform and distribute the power to the end users, including household & public infrastructure connection.
- **Part II**: Procurement, Construction, commissioning, and testing centralized off-grid solar PV power plants, distribution lines, and household & public infrastructure connection.
- Part III: Design and implementation of operation and maintenance training programme for local operators.
- **Part IV**: After Sales Service Warranty.

These parts have been furthermore subdivided into tasks/activities covering the broad spectrum of required services as presented in the following sections. The following tasks/activities to achieve the overall objective of the project called upon by the scope of services shall not be considered exhaustive; they are rather indicative.

A. Part I: Conduct Detailed Engineering Design to ensure constructability of centralized off-grid solar PV power plant system able to generate, store, transform and distribute the power to the end users, including household & public infrastructure connection

Key Activities

- a. Prepare project working plans that at least outlining project goals and outcome, project schedule, milestone of project from pre-construction phase, construction phase and post-construction phase, and team composition to implement the project. Engineering, social, environmental, and health aspect should be included in the project working plans.
- b. Make analysis for the solar irradiation and computation for the potential PV production at the project's site and propose the best cost effective and efficient scenarios for solar PV off-grid design. This shall include making assessment and simulation for the energy yield with detailed parameters, performance analysis for the system, shading, assumed electricity losses and others for the energy yield which could be expected over the whole project lifetime. The analysis should be performed by using computer simulation, i.e., PVsyst, helioscope, PV*Sol, or other similar software.
- c. Perform line losses and voltage drop analysis for LV distribution system and design energy efficient and costeffective distribution lines. The design shall include conductor sizing calculation, type of transmission line system, transmission line protection system, distribution poles and street lighting Make analysis for energy trend of both domestic and commercial users of the proposed villages and define the pre-payment energy metering and billing system. The analysis shall include energy limiting device, software details, lighting system, conductor sizing and required electric wiring for the facility.
- d. Define general design approach by considering the most advanced, robust, reliable, cost effective, and efficient PV technologies. The design consideration (redundancy, reliability, safe operation and expansion) as mentioned below should be included in the design approach.
- e. Provide preliminary design for the PV solar energy system and distribution line including design criteria, schematic design, single line diagram, general layout plans, proposed sizing of the system, grounding system, lightning protection system, remote monitoring system, metering system, street lighting, civil works, and all other associated system design. UNDP will provide the drawings for distribution networks, streetlight, and household connections.

- f. Propose socio and environmental working plan. The social includes the communication plan with the community during pre-construction, construction, and post-construction phase. The environmental includes the waste management plan during pre-construction, construction, and post-construction phase.
- g. Produce implementation programme for the project phases and packages. The programming shall make allowance for an operative and efficient implementation of the project components, phases and packages for minimizing disruption to the work activities.
- h. Prepare capital cost estimate in total and for each of the works elements, the proposed phases and packages.
- i. During the covid-19 pandemic, the contractor can also propose a reasonable associated cost for covid-19 rapid antibody and antigen testing. Risk and associated cost with positive infection of corona virus and recovery shall be anticipated and born by the company.
- j. Conduct Risk assessment and Risk Management Plan to identify potential technical, social, environmental, and health risk during the pre-construction, construction, and post-construction phase following UNDP standard (Annex 5).

Key deliverables

- a. A report of project working plans to be implemented in pre-construction, construction, and post construction phase.
- b. A report of the predicted yearly energy yield based on secondary data that is estimated by using computer simulation software. The analysis shall consider whole project lifetime (20 years).
- c. As-built technical drawing of electrical, mechanical, and civil construction. Single line diagram and detail wiring diagram shall be produced as the electrical drawing works. Detailed design for the PV solar energy system shall include:
 - o sizing of the components and system
 - o power electronics system
 - AC & DC distribution panels,
 - combiner boxes (if applicable),
 - remote monitoring system,
 - metering system,
 - o grounding system for all components,
 - lightning protection system
 - PV mounting structures and foundations
 - Powerhouse
 - Power distribution lines
 - Household and public facility electrification

UNDP will provide the basic technical drawing of the distribution lines, household connection, and streetlight for all target locations.

- d. Detailed preliminary layouts and mapping for the site, load profile for energy users . UNDP will provide layout and mapping for distribution lines, streetlight, and household connection.
- e. Bill of Quantities with Method of Measurement: The Bill of Quantities shall be detailed with accurate quantities. The Bill of Quantities shall include price with itemized list of components, equipment, and works needed to complete the project. Additional cost for covid-19 rapid antibody and antigen that is related with directly with the project might be included.
- f. Report on social-environmental assessment and risk management plan, and Statement Letter for Environmental Management (Surat Pernyataan Pengelolaan Lingkungan/SPPL) signed by Contractor for each of location.
- g. Detailed Engineering Design for solar PV power plant.
- h. Detailed Engineering Design for low voltage distribution lines.
- i. Detailed Engineering Design for household & public infrastructure.
- j. Detailed Engineering Design for civil construction.

Design considerations

General Requirement for Design

Solar PV Off-Grid Configuration

The centralized PV power plant will be designed with battery energy storage system to deliver a reliable electricity services from solar power to the targeted household and commercial users located in remote villages through distribution lines with minimum losses. The configuration of PV power plant will be either **DC Coupling or AC Coupling**, while the grid distribution will be an AC system. The system must be optimized for each individual location, thus the bidder must propose a tailored system configuration. The low voltage distribution network shall be configured and designed to minimize the line losses and improve the power quality of the grid. The overall grid system design and LV distribution network shall conform to IEC practices and compliant with Indonesian grid and distribution code. Personnel safety and equipment protection during installation, operation and maintenance of power grid as well as distribution system after the completion of the project will be integral part of the design. The bidders shall define in his proposal the required human and equipment safety rules after PV plant commissioning and normal operation. The PV off-grid systems are located in villages far away from the regency capital where the bidder will be required to develop remote monitoring system to monitor daily operation and performance of the PV grid system All equipment must have proper protection mechanisms. The bidders shall also provide services for AC off-grid distribution system, household connection, streetlight and associated balance of system (protection, , energy limiter, metering system, and other necessary components).

Definition

Centralized (off-grid) Solar Power Generation System (PLTS) is defined as a power generation system that utilizes solar photovoltaic technology to convert solar energy into electrical energy. Electrical energy is obtained by combining or stringing several photovoltaic solar modules into one array, where the energy produced is stored in a battery (battery bank). The energy stored in the battery (direct current system) must first be converted to alternating current with an inverter (DC-AC) before being distributed to users through the 220 / 380V-230 / 400V AC power distribution network.

Design for redundancy

UNDP requires the off-grid system to have a redundancy in case of a failure, i.e. a failure in one component should not cause the shutdown of the entire off-grid system. UNDP therefore recommends that the system shall be designed as a modular system. Inverter and DC MPPT solar charger or PV inverter must have **n+1** redundancy with same size as a mandatory per Lot. Therefore, the off-grid system shall be designed and sized to provide power without service interruptions.

Design for reliability

The solar PV off-grid system shall be designed to last a minimum of 20 years. Solar PV array shall be designed to last 20 years. Power conditioning system (PCS) and battery storage (ESS) shall be designed to last a minimum of 5 years. Bidders must demonstrate that the ESS is designed to last for the duration of 5 years under daily solar cycling conditions.

Bidders are expected to provide all technical specification, datasheet, and design documents that validate the 20-year reliability claim of each component specified within the system, though ESS and PCS shall be replaced depending on the design life span. UNDP requires a minimum full system warranty of 2 year of the entire system from the contractor. To sum up, minimum requirements are:

- The solar PV off-grid system shall be with full system warranty of 2 year of the entire system.
- Solar PV modules designed to last a minimum of 20 years with power degradation of maximum 20%.
- ESS is designed to last for the duration of 5 years (type: under daily solar cycling conditions)
- Power conditioning system with 5 years warranty.

Design for safe socio-environment and operations

The solar PV off-grid and LV distribution network shall be designed and constructed by considering appropriate social and environmental measures to avoid social conflict and environmental pollution especially during the pre-construction, construction, and post-construction phase.

The solar PV off-grid power plant and distribution system shall be designed for safe operation. Protection shall consider equipment and human safety. Bidders shall propose equipment protection scheme to detect and isolate all failed or faulted components from external and internal failure. Grounding and lighting protection system shall also be designed carefully following applicable national or international standards. All ground conductor resistance shall follow the recommendation from IEEE and SNI PUIL. Risk assessment due to lightning strike needs to follow IEC 62305-2 or equivalent standard.

Design for system expansion and grid arrival

The solar PV off-grid system shall be designed to accommodate future expansion without major component replacement and/or addition. The solar PV off-grid system shall also be able to be connected to the grid without major component replacement and/or addition. The grid-arrival plan should be included in the proposal. DC coupling system as the minimum.

Design for efficiency

The solar PV off-grid system shall be designed in such a way that it delivers the highest efficiency to the household. The solar PV off grid shall be designed to achieve the most optimum energy yield and operated at maximum power. The solar PV off grid system shall be designed to distribute power with minimum losses of 10% in the distribution system as recommended by national standard.

Technical Specifications

Please note that the technical specifications as listed below are the minimum requirements for selection of main components and balance of system and it will be evaluated on a PASS/FAIL basis. Therefore, if all minimum requirements are met, the technical score will be a PASS, implying that the scoring system does not allocate any point to the accomplishment of these mandatory and minimum requirements.

Bidders are encouraged to propose a solution where components chosen are designed and combined to maximize the system efficiency and end-user benefit.

The bidders shall comply with recommended specifications and standards when sizing system and proposing off-grid design according to the Annex-6.

Photovoltaic Module

The bidder shall select the most optimum PV modules that would provide a reliable electricity services for at least 20 years. The PV module shall also be able to withstand the local climate and environment condition. The following is the minimum specification for the PV modules. The following specifications of module shall be indicated in technical offer:

- PV module manufacturer
- PV module model and type (mono and poly)
- PV module peak power rating at STC and NOCT
- Voc, Vmpp, lsc, Impp, and temperature coefficient for current, voltage and power
- Certificate of module testing and quality, this includes year of obtaining and the issuer of certificate
- Country of origin

Please refer to **Table 1** for the daily energy demand that can be used to design the system per site.

| Efficiency | ≥18% |
|--------------|------------------------------------|
| Type of Cell | Polycrystalline or monocrystalline |

| Manufacturer | Warranty | for | Generation | 20 years (maximum average annual |
|---------------|----------|-----|------------|----------------------------------|
| Capacity | | | | degradation 1%) |
| Certification | | | | IEC 61215, IEC 61730 or UL1703, |
| | | | | and ISO9001 certified |

PV Combiner Box (if applicable)

The bidder shall use PV combiner box where the output of multiple PV source circuits conductors to be connected in parallel. Series Fusing is essential for ungrounded conductor in combiner box for protection of PV stings and charge controller/inverter from potential fault current. All conductor inside combiner box shall be properly labeled and waring sign will be required. The combiner shall also include a quick, easy, and safe mechanism to disconnect the PV array from other circuit in time of fault occurrence and maintenance. The combiner box shall also be able to withstand the local environment.

| IP Rating | Equal or more than 65 |
|------------------------|-----------------------|
| Label and warning sign | Required |

Solar Charge Controller (SCCs) or PV inverter

Depend on the system configuration (DC Coupling or AC Coupling), the contractor shall provide SCC or PV inverter that is designed with redundancy and provides the most optimum energy yield to be distributed to the household. The SCC/PV inverter shall also comply with applicable international or national standard for power electronics system in solar PV application. The algorithm must be the MPPT type, while PWM algorithm will not be considered.

| SCC/PV inverter total capacity | To size solar PV array capacity while achieving system efficiency | |
|--------------------------------|---|--|
| Operating algorithm | МРРТ | |
| Type and model offered | To be indicated by bidder | |
| MPPT Efficiency | 99,5 % | |
| Conversion Efficiency | 97,5 % | |
| Protection | input reverse polarity, high voltage disconnect, ground fault, overcurrent, overvoltage, short circuit, and battery charging | |
| Manufacturer Warranty | 5 years | |
| Certification | For SCC IEC 62509, or equivalent For PV inverter IEC 61727, IEC 62116, and VDE0126-1/A1 or equivalent | |

Battery/Off-grid Inverter

Multimode inverter shall be used, having built-in MPPT solar tracker and feature of converting PV DC energy into AC and directly feeding to the load. Please note that only inverter from same manufacturer with same type and size shall be connected in parallel. The number of inverters is to be adjusted to achieve the most optimum design. The hybrid inverter specifications are as follows:

| Inverter Rated Power | To match Solar PV plant capacity while achieving optimum system efficiency |
|--------------------------------------|--|
| Inverter algorithm | МРРТ |
| AC Voltage regulation (Battery Mode) | 230 V AC ± 5 % @50/60 Hz or 400 V/50Hz three phase AC |
| Model(s) and type offered | To be indicated by the bidder |
| Efficiency | ≥93% |

| Wave form | Pure-Sine Wave |
|-----------------------|--|
| Protection | Battery overvoltage, Battery undervoltage, overload, short circuits, overvoltage, overcurrent, surge protection, and temperature protection |
| Manufacturer Warranty | 5 years |
| Certification | IEC 61000 and IEC 61683 or equivalent |

Battery Storage

The battery shall be optimized to achieve 5 years of lifetime under daily solar cyclic condition and shall demonstrate 80% of its nominal capacity after 2000 charge and discharge. The bidder shall also configure the battery and determine the most optimum battery voltage to be used for each location. One of two battery technologies can be selected: VRLA (OPzV)/Lead Carbon or Lithium-ion. Please note that **only one type of battery can be proposed** by the contractor per lot. Alternative battery technologies that is not specified in this document will not be considered. The following is the minimum required specification of the battery storage.

| Model and type of Technology offered | To be indicated by the bidder |
|--------------------------------------|-------------------------------|
| Minimum DoD | 80% |
| Maximum Days of Autonomy | 1.5 days |
| Operational temperature | -20 °C to 60°C |
| Minimum life cycle @ 80% DoD / 25 °C | 2000 |
| Manufacturer Warranty | 3 years |

We encourage to offer higher battery lifecycle possible. The scoring system is designed to favor higher battery lifecycle solutions. The detail point that can be obtained is listed in evaluation criteria section 4 system design. For Li-ion battery, the system must be embedded with Battery Management System.

Additionally, the bidder will require to share the following information in technical proposal:

- Curve showing C-rating versus time
- Life cycle in relation to depth of discharge
- Self-discharging rate features
- Type of materials used in manufacturing
- Range of operating Temperature
- Certificate of battery module testing and quality

Remote Monitoring System

The off grid solar plant will be installed in remote villages located far from the regency capital where performance of the solar systems will be monitored through a remote monitoring tool and connected to the local PC server in the power-house. The bidder shall design and procure the local server as well. The remote monitoring data shall be able to be accessed via web-based browser or ethernet or mobile application-GPRS/GSM modem by all concerned parties including system operators (provider of two years after-sale warranty), administrators and related agencies. The remote monitoring data shall be able to be sent to a third party web-The following is the minimum technical information that must be presented in the dashboard:

| Minimum displayed data | The remote monitoring system shall follow IEC 61724 | | |
|------------------------|---|--|--|
| winning displayed data | for PV monitoring performance. The following | | |
| | information must be presented in the dashboard: | | |
| | Total irradiance | | |
| | Ambient temperature | | |
| | PV module temperature | | |
| | PV energy yield | | |
| | Energy consumption | | |

| ٠ | Load | flow | to | or | from | battery | (charged | or |
|---|--------|---------|------|-------|---------|---------|----------|----|
| | discha | arged) | | | | | | |
| ٠ | Batte | ry stat | e of | cha | rge | | | |
| ٠ | Opera | ational | stat | tus d | of PV s | ystem | | |

Grounding and Lighting Protection

The grounding must consider both system and equipment grounding. All current-carrying materials must be grounded to limit the grounding resistance with 5 Ω . Please refer to the national standard or the grounding system as the guideline for designing the grounding system. The equipotential bond/grounding rod must be installed in an underground box made from precast concrete with an openable lid for inspection and maintenance.

The lightning protection system shall be designed compliant with class of LPS III and consider the associated risks of lightning as per IEC 62305 or design follow applicable international/national standard for lightning protection system.

Wiring and Cabling

All connection cable shall be sized and provided according to IEC 60228 & IEC 60502 specifications(minimum voltage rating 1000 VDC) and must be placed on the cable tray / trunk. Label indicators are necessary to be placed on each cable to ease troubleshooting and maintenance. Two color code shall be used in single phase according to the polarity (red for positive, black for negative), while in three phase wiring, for phases marked red, yellow, blue; and black for neutral. Label indicators are necessary to be placed on each cable to ease troubleshooting and maintenance. The cable color must follow applicable international and national standards.

- For DC cabling, XLPE/XLPO insulated and sheathed UV stabilized single core cable shall be used. During sizing and selection of conductor, the voltage drop of the conductor on DC side of PV off-grid system shall not exceeded 2%.
- For AC cabling, PVC or XLPE and PV sheathed single or multi-core copper cable shall be used. Outdoor cable must have UV stabilized outer sheath. The voltage drop of the conductor on AC side of PV offgrid system from inverter to AC distribution panel shall be within range 1- 1.5%.

Distribution panels

DC&AC distribution panels must be equipped with protection system and busbar that is sized and connected accordingly. The distribution panel shall also be able to provide operational information of the solar PV system. The ingress protection level must be set accordingly to meet the minimum IP rating for indoor application.

PV mounting

The bidder must design the PV Array in such a way that it is neatly arranged with several symmetrical lines as well as able to provide the most optimum energy yield. The inter-array spacing shall be kept in such a way to avoid shading of one solar PV array over another and is sufficiently passable for routine cleaning and maintenance access. In addition, the PV mounting system must be able to withstand wind speed loads of 150 km/hour.

The PV mounting support structure shall be design for simple mechanical onsite installation without requirement of welding and heavy complex machinery at installation sites. The structure material of PV mounting support system must be corrosion resistant, sturdy and strong, made of treated aluminum alloy. While the nut/bolts and fastener, clamps shall be stainless steel.

The method of fixation and type of PV mounting system shall be at discretion of the proposer. However, the cabling and connection shall be neat and clean, and structure must be strong enough to cope with environmental conditions. Selected sites have various weather conditions and information related to the

site could be further explore in Annex 04 for PV mounting design consideration. UNDP will provide the layout reference for PV mounting to illustrate the condition of the land in all 23 location.

Power house

The bidder must design a power house in each location to store the component that must be placed indoor. The power house shall be designed in such a way to provide a sufficient air circulation that can maintain the temperature inside the power house less than 30°C. All power plant facilities also need to be protected from unauthorized personnel. Please note that four locations of the solar PV power plant have been identified to experience annual flood and/or located in open sea location.

- Annual flood up to 2 meter Muara Ripung Village
- Sea level up to 2 meter Wangkolabu Village and Tassipi Village
- Sea level up to 1 meter Pulau Baliara Hamlet

Specific for the flood and tidal locations the power plant area must be designed to consider the water level on the PV power plant area. In addition, access to the power house is required in the form of ascending stairs in the four location. Additional signage/nameplate that has been designed by UNDP must be installed in each location. Please refer to Annex 4 for detail information about the sites. The structure material of powerhouse shall be of galvalume and polyurethane sheet.

LV Distribution Network

LV Distribution Network design consideration

An electric network is required for distribution to household and public infrastructure. Please refer to the national grid code, distribution code, and low voltage distribution standard in designing the distribution network. The voltage drop of the distribution network must be less than 10% at the farthest point of connection. The distribution poles must be able to withstand the local environment. Additional streetlight must also be constructed along with the distribution. The bidder must propose the recommended network topology and earthing configuration for the distribution network and streetlight that can result in the most efficient, reliable, and safe electricity services.

The reference layout of the network and household & public infrastructure installation is available at Annex 4 Site Information. The minimum total length of the distribution network and pole numbers for each site is already provided in attached Annex-Load profile. Annex 4 also contained the energy demand for each location.

Household and public facility connection

Each house/facility has 5 connection points-4 points for lamps and 1 outlet terminal. Each household and public/production facility shall be equipped with highly efficient energy lamps, energy meter, surge protector, energy limiting device. Household electricity tariff is classified Tier-2 for all locations. For details information about households energy consumption and commercial facility demand per location, please refer to Table-02 and Annex 4. The household and commercial facility electrification shall be performed in accordance with National standards(SNI-PUIL)

Metering System

Each household connection and public infrastructure shall be equipped with devices that able to limit the daily energy consumption of each user. The metering system shall also be able to accommodate the use of energy limiter sustainability of the system and avoid power theft. Kwh meter must be effective toto avoid unpaid electricity used by households.

| Requirements | Kwh meter and energy limiter |
|---------------|------------------------------|
| Certification | IEC 62053 or equivalent |

B. Part II: Procurement, Construction, commissioning, and testing centralized off-grid solar PV power plants

Key activities

- a. Develop procurement, mobilization and demobilization plan of key components, equipment and personnel. Mobilization shall include all activities and associated costs for transportation of contractor's personnel, equipment, and component to the site as well as necessary facilities that needs to be constructed to support project implementation. Demobilization shall include all activities and costs for transportation of personnel, equipment, and components not required or included in the contract from the site; including the disassembly, removal, and site cleanup of lands and other facilities assembled on the site.
- b. Prepare an Environmental Management Statement Letter which declares the company commitment to adequately manage the resulting waste and work with precaution during pre-construction, construction and post construction phase. The letter can be self-produced and it must have a legal binding. The statement shall cover at least the following:
 - Implementation plan of construction that considers the environmental aspect.
 - Preserving the biodiversity in surrounding construction site, particularly those in conservations area.
 - Respecting the community environmental and cultural value.
 - Avoid polluting the surrounding environment (water, land, and air) during the pre-construction, construction, and post-construction phase.
 - Act with precaution when working with hazardous material both solid and liquid materials.
 - Immediately act to protect the community and environment in the event of hazardous material leakage to the environment to avoid further environmental degradation.
- c. Prepare S curve of construction project that illustrates the cumulative total output achieved (in percentage) and total completion time (in percentage). The associated cost shall also be indicated in the S curve.
- d. Provide service necessary to prepare site for construction. The physical site preparation includes vegetation clearance, land clearance, and land levelling. The contractor shall also coordinate and liaise with provincial and village government to ensure that the necessary permit has been fulfilled to start the construction.
- e. Construction of civil works that includes the construction of powerhouse, the platform (if applicable), and its surrounding fence as well as the PV ground mounting system. The powerhouse shall house the DC & AC distribution panel, solar charge controller or PV inverter, multimode inverter, battery (and its BMS if applicable), and remote monitoring system.
- f. Construction of solar PV power plant that includes installation and erection of PV mounting system, PV modules, combiner box (if required), solar charge controller or PV inverter, multimode inverter, battery system, remote monitoring system, wiring, grounding system, and lightning protection system. The construction shall adhere the applicable national and international standards that ensure safety operation of the entire system.
- g. Construction of LV distribution networks and household connection. Installation and erection of distribution poles, streetlight, overhead lines, service connection, energy meter, and energy limiter. One electrical house wall outlet and four LED lamps point shall also be installed in each household.
- h. Configuration and setting of the required parameter in the multimode inverter, solar charge controller or PV inverter, and remote monitoring system to ensure optimum system operation. Configuration and setting of energy meter and energy limiter in each household and other facilities as specified in this RFP. The setting shall follow as specified in this RFP. The configuration shall adhere the applicable national and international standards that ensure safety operation of the entire system.
- i. Commissioning and testing for solar PV off-grid with recognized protocol and guideline that is specifically applicable in commissioning and testing of a standalone/off grid solar PV system. The commissioning and

testing shall include civil, mechanical, and electrical aspect, both checklist of component& installation and operational performance shall be commissioned and tested. The contactor shall hire a reputable inspection agency that has demonstrated experience in commissioning PV-off grid system.

j. Prepare monthly regular meeting plan to report progress and milestone.

Key deliverables

- A report that contains mobilization and demobilization of component. The report shall contain documentation and proof of mobilization and demobilization of component, equipment, and personnel. Site clearance and waste management report shall also be attached.
- b. Monthly report that contains the current stage of solar PV off-grid construction. The S curve shall be used as the basis of the report that illustrates the progress, cost, and schedule of the construction.
- c. A report that contains documentation of site preparation to start constructing the solar PV off-grid.
- d. Final report of civil works, solar PV power plant, LV distribution networks, household connection, and other associated installation. All documentation shall be attached in the report, this includes site pictures and technical drawings. Please note that for electrical works, all wiring diagram that corresponds to operation and maintenance of the solar PV off-grid shall be attached in the report as well as put in the site. For example, wiring diagram of AC distribution panel shall be put in the AC distribution panel box.
- e. Issuance of Commissioning certificate from legalized authority for each solar PV off-grid.

C. Part III: Design and implementation of operation and maintenance training programme for local operators.

The objectives of the training programme is to train about 6-8 local operator candidates for each location on the PV mini grid's operation and maintenance and select two best local operators. The operator candidates will be informed to the Contractor by the ACCESS project's village facilitator. The Contractor shall provide hands-on site-based training, of which the training sessions follow the construction key milestones. The following key activities and deliverables should be addressed.

Key activities

- a. The Contractor shall assign an Engineer or a small team to manage and be responsible to the development of Technical Manual of Operations and Maintenance, as well as the implementation of On-the-job Training for local operators (and RESCO boards if applicable). The assigned personnel will be in close communication with ACCESS Project to report the progress of on-the-job Training and Technical Manual preparation.
- b. Develop Technical Manual of the Solar PV off-grid's Operation and Maintenance (O&M). The Manual shall establish the framework for the development of O&M program and therefore a detailed On-the-Job Training program for Local Operators to be developed by the Contractor. The Technical Manual shall cover, but not limited to:
 - Introduction to solar PV power plant system, including the main components and balance of system.
 - Customized installation and operation manual for PV system and components, respective to the installed system design. This manual shall be developed by the Contractor and shall include the asbuilt drawings (wiring diagrams) as reference for long term O&M.
 - Maintenance plan and manual for the PV system and components. The maintenance manual shall include electrical, mechanical, and civil components/construction maintenance in regular basis (i.e. daily, weekly, monthly, bi-annually, etc.). This shall also cover the explanation on the regular maintenance works and basic of safety principles, including the provision of log-sheet for regular components and system check, as well as cost associated with them.
 - Basic PV system performance inspection, testing, analysis, and troubleshooting/repair. The troubleshooting shall cover the common issues, such as replacing fuses, MCB, SPD, measuring voltage and current, identifying ground fault in the PV array, etc. This shall also define the budget and estimate

schedule for repairs and replacements of parts. The battery replacement section shall also mention the environmental impact and thus its procedure.

- Future expandability options and brief technical requirements as well as technical procedure to expand or connect to the grid. This includes the possible power plant capacity addition or possible connection to the grid in the future.
- c. Develop and implement training program for local operators (and RESCO boards if applicable). The on-thejob training shall be implemented simultaneously with the construction process (from the first installation through the commissioning date) with the minimum of 40 training hours. The curriculum shall cover all information provided within the Technical Manual, with the following target output:
 - The selected operators know how the PV system works, can mention each of the components, and understand the wiring diagram. The components introduction shall include PV module, PV combiner box, inverter, solar charge controller, battery system, grounding & lightning protection system, metering system (include load characteristics & energy limiter), PV monitoring system & remote monitoring system, distribution lines, streetlight, and household connection.
 - The selected operators are familiar with the content of the Technical Manual and understand how to use it.
 - The selected operators can operate the PV system and know how to do the regular maintenance of each component, with the maintenance tools kit provided by the Contractor. The maintenance training shall emphasize the safety principles, PV module cleaning, and the log-sheet record.
 - The selected operators are aware of common PV issues (both technical and non-technical) of the system and know how to do the performance testing & analysis, as well as how to fix it (or where to find solution). This includes understanding the warranty claim procedure.
 - The selected operators understand the environmental impact of PV components (especially battery) and know how to manage it.
 - The selected operators (and/or the RESCO board) are exposed to illustration of cost/expenses associated with the O&M of PV infrastructure.
- d. The Contractor shall propose the methodology/approach that will be used to deliver the on-the-job training on-site. The strategy to promote gender empowerment and gender equality principles throughout the implementation of on-the-job Training shall also be considered. The methodology proposed must allow for selection of two best operators (gender balanced) at the end of the On-the-job training with reliable assessment report. The selected operators will be further taking formal training and certification by formal institution.
- e. The Contractor is responsible for ALL the costs related with the training programme proposed, including trainer fee, venue, training material, catering services, transportation, and any other related cost or fee. The all-inclusive training cost has to be provided under Financial Proposal (Form G), including detailed breakdown of any relevant fee or cost.

Key deliverables

- a. A report that contains the assigned team structure, general methodology/approach, training curriculum, and timeline for the On-the-job training program. The timeline shall be in-line with construction timeline and shall indicate sessions schedule as well as the associated staff that is planned to deliver the training.
- b. A report that contains the Technical Manual for solar PV off-grid Operation and Maintenance (O&M). The report shall be in Indonesian Language and easily understood (user friendly).
- c. Monthly report(s) of training program progress for local operators (and RESCO boards if applicable) and the final report. The report(s) shall cover the progress and documentation of on-the-job training implementation, especially the local operators' capacity assessment as well as critical issues and mitigation plan for further training implementation.
- d. O&M tools kit for local operators are in place, to include at the minimum of Clamp meter, IR thermometer, nh fuse puller (if nh fuse is used), and toolkit set (screwdriver, spanner set, pliers set, hammer, and crimping

tools for cables). This shall also include provision of fire extinguisher (APAR), safety shoes, folding stairs, and gloves for the local operators.

D. Part IV: After Sales Service Warranty

Key Activities

- a. In addition to the equipment life-time warranties, the contractor shall provide a two years after-sale service warranty period after commissioning to ensure the system is functional, during which any associated cost for replacement of components (solar PV modules, solar charge controller or PV inverter, multimode inverter, battery storage system, remote monitoring system, pre-paid metering, energy limiter, grounding and lighting protection system, wiring and cabling, distribution panel and combiner box, distribution lines, street light and household connection, PV mounting system), installation, that includes civil, mechanical, and electrical works and transportation of component, equipment and personnel will be borne by the contractor.
- b. The two years warranty period shall cover corrective maintenance (outside the equipment warranty, max 2 times incidents/year, excluding the natural-disaster casualty) and condition-based maintenance through real-time equipment performance remote monitoring system installed as part of the off-grid. The daily operation and regular maintenance will be conducted by trained and certified local operators.
- c. Technical support during two years of operations refers essentially to support fixing issues with equipment; ensuring full functioning of system and provide assistance with maintenance and remotely assisting RESCO in operation as necessary.
- d. Technical Support must be provided by appointed and qualified technical officers located in each region, either the Supplier's local office or the partner's office. The Supplier must provide evidence demonstrating that the technical officers have adequate technical skills.
- e. The repairs and defective items have to be replaced in maximum 14 days. The Supplier is responsible for ensuring defective items are replaced within this time, by considering having a minimum stock of spares parts. If any item has to be requested from manufacturer, it is at the Supplier's risk to ensure delivery within the maximum accepted days.
- f. The contractor shall develop a warranty claim procedure for the main components i.e., PV modules, solar charge controller or PV inverter, multimode inverter, battery, and balance of the system. The warranty claim procedure shall indicate the warranty period as well as terms and condition of each main components, contact of hotline services, identity/name of the list of producer/agent/representative, the contact number, the address, email, claim form template and other supporting materials.
- g. The contractor shall provide availability of spare parts and after sales support in the local market for the BESS and power electronics system (evidence of the locations of such stock availability and quantities must be provided) with dedicating BUMDES/RESCO sales focal point, Indonesian speaking.
- h. The contractor shall carry sufficient inventories to ensure an ex-stock supply of consumable spares as well. Specific for fuses, additional 10% of fuses have to be provided on-site.
- i. The contractor shall provide the name, address and a description of the resources responsible for providing the warranty on the products and assist RESCO in the procedure to arrange any warranty claim.
- j. By December 2023 the beneficiary of the two years after sale service warranty will be transferred by the Contractor to the RESCO/village government as counterpart of the project.

Key Deliverables

- A. Warranty claim guideline for local operators to support operation and maintenance. The guideline shall cover both the one-year warranty from contractor for solar PV off-grid system and the manufacturer warranty for components. The guideline shall be written in Indonesian language and easily be understood.
- B. Warranty certificate letter for two-years after sale service warranty from contractor for solar PV off-grid system. The certificate/letter shall be issued in Indonesian language. The warranty shall be effective and immediately apply after COD. The COD shall be indicated by the contractor in the proposed project working plan and/or S curve.
- C. Warranty certificate from manufacturer components. The certificate shall be handed to the RESCO boards.

IV. DELIVERABLES SCHEDULE

The overall implementation of work in all Lots in 23 target locations that include (1) Detailed Engineering Design, (2) Procurement, Construction and commissioning, and (3) Training programme is expected to be completed within 8 months from the Contract signing date, while the provision of after sale service and warranty should be completed in two years from the COD of solar PV power plant (Table 3). **The expected duration of the Contract is 32 months.**

Table 3 Deliverable schedule

| | Deliverables/Outputs | Deliverable Schedule |
|----|--|--|
| 1. | Detailed engineering design (DED) of the centralized off-grid solar PV power plant system, distribution lines and household connection in selected Lot in ACCESS project target locations (Table 2) approved by UNDP for construction, including social and environmental risk assessment and mitigation measures. | Within 1.5 months from contract signing date |
| 2. | Timely procurement, mobilization, construction, commissioning and well performing centralized off-grid solar PV power plant system in selected Lot in the ACCESS project target locations (Table 2), in compliance with social and environmental standards. | Within 6.5 months from UNDP's approval date of DED |
| 3. | Provision of operation and maintenance manual and on the job training for at least 6 local operators in each of locations in selected Lot. | Within 6.5 months from UNDP's approval date of DED. |
| 4. | Manufacturer's warranty claim procedures for main solar PV components and two years maintenance warranty period all-inclusive for spare-parts replacement, installation, transportation and service personnel. | Within 2 years from Commercial Operation Date (COD) |

V. GENERAL RESPONSIBILITIES/REQUIREMENTS

A. Facilities provided by UNDP

- No site facilities shall be provided by UNDP
- Land utilization approval from land-owner/head of village in target locations for solar PV power plant construction.
- Facilitation in selection of local operator candidates to participate in on-the job training programme.

B. Facilities to be Provided by Contractor

 All required facilities for proper commencement of all works under the assignment shall be Contractor's own responsibility. Unless otherwise explicitly called upon, any facilities shall be deemed included and/or surcharged in/to the consultant's fee rates.

Duty stations during assignment are in Jakarta and in locations of the selected Lot. The Contractor shall ensure deployment of appropriate personnel in the Duty stations to allow effective project management and coordination with UNDP.

VI. SCHEDULE OF PAYMENTS

| Payment Terms | 1st Payment : 20% of contract amount upon completion and approval of: |
|---|---|
| (max. advanced payment is 20% as per UNDP policy) | Detailed Engineering Design and approval for solar PV power plant by UNDP |
| If an advance payment is USD 30,000 and above the Proposer shall submit a Bank | |

| Guarantee in the full amount of the advance | • Detailed Engineering Design and approval for low voltage |
|---|--|
| payment. | distribution lines by UNDP Detailed Engineering Design and approval for household & public infrastructure by UNDP Detailed Engineering Design and approval for civil construction design by UNDP Report on social-environmental assessment and risk management plan, and Statement Letter for Environmental Management (Surat Pernyataan Pengelolaan Lingkungan/SPPL) signed by Contractor. Report on mobilization plan and approval by UNDP. |
| | 2nd Payment: 10% of contract upon placement order of components, mobilization of personnel and preparation of civil work. |
| | 3rd Payment : 20% upon completion of 60% construction work and evidence of 50% delivery of solar-PV equipment to site/storage. |
| | 4th Payment: 30% of contract amount upon completion of 100% construction work, commissioning and issuance of Operational Adequacy Letter (Surat Laik Operasi) |
| | Sth Payment: 5% of contract amount upon acceptance of operation and maintenance manual, and completion of training programme; 7.5% of contract amount upon aceptance of manufacturer's warranty claim procedures and signed first year all-inclusive maintenance service warranty. 7.5% of contract amount upon acceptance of manufacturer's warranty claim procedures and signed second year all-inclusive maintenance service warranty. Note: This Payment Terms is indicative and does not include advanced payment. IF the bidder requests for advanced payment, progressive deduction over paid advance payment shall take effect from payments 1st to 4th in equal amount of 25% of the advance payment is USD 30,000 and above) will be returned after the 4th payment. |
| | Within (7) days of contract signature and before issuance of the notice to proceed, the successful Bidder shall furnish a Performance Security to UNDP in the amount of 10% of the contract Value. |
| | The Performance Security 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. If selected bidder opts to use retention money instead of performance security, an equal percentage will be reduced from each progress payment up to 10% of the total contract amount. This figure, 10%, will be reduced to 5% after commissioning and remaining 5% kept until the expiration of the 24 months of the after- sale service and warranty period. |

| Condition for Release Payment | For Progress Payments: 1) Verification and approval of work progress by UNDP's own engineer and ACCESS Technical Officer. 2) Upon receipt of certificate of substantial completion from ACCESS Indonesia Project Manager. |
|-------------------------------|---|

Approval Lead Time by UNDP

UNDP must be updated and shall be kept regularly informed of the implementation progress and satisfactory completion, and minimum as requested in the next Section-Reporting Content and Frequency. Final payment for - Bidders services shall be effective within thirty days of payment approval.

VII. GOVERNANCE AND ACCOUNTABILITY

A. Supervising Authorities – Contract Execution and Completion

The Contractor shall be primarily responsible to the ACCESS Indonesia Project Manager regarding securing certifications for services completion.

B. Reporting Content and Frequency

The Team Leader shall hold **biweekly virtual meeting** to present in brief project progress, two weeks lookforward plan and issues to be addressed-if any- with ACCESS Project Manager, ACCESS Technical Officers, ACCESS Technical Engineer, Owner's engineer, UNDP Senior Advisor for Sustainable Energy and other relevant institutions, such as KOICA, Ministry of Energy and Mineral Resources.

The Team Leader shall also submit a **monthly report by email** to the ACCESS Project Manager, copied to ACCESS Technical Officers, ACCESS Technical Engineer, Owner's engineer and UNDP Senior Advisor for Sustainable Energy. Supported by photographs and site shop drawings reflecting changes (if-any) report shall cover the following:

- Progress reporting, delays, etc.
- Staff employed by consultant, contractors, counterparts.
- Meetings held with counterparts, sub-contractors, etc.
- Financial status, predicted cash flow, expected variations.
- Technical Issues.
- Challenges and means to resolve these.
- Security, complaint incidents.
- Completed, in-progress, delayed, envisaged, etc. activities.

On completion or otherwise upon request, the Contractor shall report by AV presentation or site meetings where warranted.

Proposals for the use of Unmanned Aerial Vehicles for progress monitoring shall be encouraged. These, however, shall support but not at all supplant physical inspection and contractor liaison on site.

All irregular or emergency events or situations will be immediately reported to the ACCESS Project Manager.

The consultant's cost for the reporting purposes shall be deemed included and/or surcharged in/to the consultant's fee rates.

C. Regular Liaison

The Team Leader is expected to coordinate via email with ACCESS Project Manager or ACCESS Technical Officer/Engineer and to liaise with Provincial, District and Village Government of the target locations in the course of performing the work.

ANNEXES to the TOR:

| Annex 1. | Contract for Civil Works template |
|----------|---|
| Annex 2. | General Terms and Conditions for Contract |
| Annex 3. | UN Supplier Code of Conduct |
| Annex 4. | Site Information, Load Profile, Basic Drawing |
| | 4.1 Site assessment data Lot 1, 2, 3, 4 |
| | 4.2 Basic Drawing Lot 1, 2,3,4 |
| | 4.3 Load Profile data Lot 1,2,3,4 |
| | 4.4: Video of Target Locations for Lot 1,2,3,4 |
| Annex 5. | Environmental and Social Management Framework (ESMF) |
| Annex 6. | Bidder Statement on technical specifications & deviations |
| Annex 7. | <i>Template for Performance Guarantee (</i> required only if the bidder is selected as the winner of the tender). |

All above-mentioned Annexes can be found from the following link:

https://drive.google.com/drive/folders/14fDFR9UjV6sZyVR1dshz-vjvXgPBoXcc?usp=sharing

SECTION 6: RETURNABLE BIDDING FORMS / CHECKLIST

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

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

Technical Proposal Envelope:

| Have you duly completed all the Returnable Bidding Forms? | |
|---|--|
| Form A: Technical Proposal Submission Form | |
| Form B: Bidder Information Form | |
| Form C: Joint Venture/Consortium/ Association Information Form | |
| Form D: Qualification Form | |
| Form E: Format of Technical Proposal | |
| Form H: Proposal Security Form | |
| Have you provided the required documents to establish compliance with the evaluation criteria in Section 4? | |

Financial Proposal Envelope (Must be submitted in a separate sealed envelope/password protected email)

| - | Form F: Financial Proposal Submission Form | |
|---|--|--|
| - | Form G: Financial Proposal Form | |

FORM A: TECHNICAL PROPOSAL SUBMISSION FORM

| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
|-----------------|-------------------------------|-------|-------------|
| RFP reference: | [Insert RFP Reference Number] | | |
| Lot | [Insert name of Proposed Lot] | | |

We, the undersigned, offer to provide the services for [Insert Title of services] in accordance with your Request for Proposal No. [Insert RFP Reference Number] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal and our Financial Proposal sealed under a separate envelope.

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 post-employment 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 Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification and/or sanctioning by the UNDP.

We offer to provide services in conformity with the Bidding documents, including the UNDP General Conditions of Contract and in accordance with the Terms of Reference

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

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

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

| 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) (<i>If</i> <i>yes, provide a Copy of the valid</i> <i>Certificate</i>): | [Complete] |
| Does your Company hold any accreditation such as ISO 14001 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] |
| Contact person UNDP may contact for requests for clarification during Proposal evaluation | Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete] |
| Please attach the following documents: | Company Profile, which should <u>not</u> exceed fifteen (15) pages per-company, including printed brochures and product catalogues relevant to the goods/services being procured Certificate of Incorporation/ Business Registration which certifies the relevance of the company in conducting electrical/mechanical engineering, |

construction and installation of renewable energy power plant, issued by the Government of Indonesia (i.e. Sertifikat Badan Usaha Jasa Penunjang Tenaga Listrik/SBUJPTL) or by other international legal entity.

- 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
- Official Letter of Appointment as local representative, if Bidder is submitting a Bid in behalf of an entity located outside the country.
- Power of Attorney.
- Trade name registration papers, if applicable
- Local Government permit to locate and operate in assignment location, if applicable.

FORM C: JOINT VENTURE/CONSORTIUM/ASSOCIATION INFORMATION FORM

| Name of Bidder: | [Insert Name of Bidder] | | Select date |
|-----------------|-------------------------------|--|-------------|
| RFP reference: | [Insert RFP Reference Number] | | |

To be completed and returned with your Proposal if the Proposal is submitted as a Joint Venture/Consortium/Association.

| Νο | Name of Partner and contact information (address, telephone numbers, fax numbers, e- mail address) | Proposed proportion of responsibilities (in %) and type of services to be performed |
|----|---|---|
| 1 | [Complete] | [Complete] |
| 2 | [Complete] | [Complete] |
| 3 | [Complete] | [Complete] |

| Name of leading partner | |
|---|------------|
| (with authority to bind the JV, Consortium, Association during the | [Complete] |
| RFP process and, in the event a | [Complete] |
| Contract is awarded, during contract execution) | |

We have attached a copy of the below document signed by every partner, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture:

□ Letter of intent to form a joint venture **OR** □ JV/Consortium//

□ JV/Consortium/Association agreement

We hereby confirm that if the contract is awarded, all parties of the Joint Venture/Consortium/Association shall be jointly and severally liable to UNDP for the fulfillment of the provisions of the Contract.

| Name of partner: | Name of partner: | | |
|------------------|------------------|--|--|
| Signature: | Signature: | | |
| Date: | Date: | | |

| Name of partner: | Name of partner: |
|------------------|------------------|
| Signature: | Signature: |
| Date: | Date: |

FORM D: QUALIFICATION FORM

| Name of Bidder: | [Insert Name of Bidder] | | Select date |
|-----------------|-------------------------------|--|-------------|
| RFP reference: | [Insert RFP Reference Number] | | |

If JV/Consortium/Association, to be completed by each partner.

Business Licenses

| Name of Business License | Year of Issuance and Validity | Country of issuance and Name of Institution of License Issuer | Category/Scope of License |
|--------------------------------|-------------------------------------|---|------------------------------|
| | | | |

Historical Contract Non-Performance

| □ Contract non-performance did not occur for the last 3 years | | | | | |
|---|---|---|---|--|--|
| □ Contrac | t(s) not performed | for the last 3 years | | | |
| Year | Non- performed portion of contract | Contract Identification | Total Contract Amount (current value in US\$) | | |
| | | Name of Client: Address of Client: Reason(s) for non-performance: | | | |

| □ No litigation history for the last 3 years | | | | | |
|--|--|---|--|--|--|
| n History as indica | ated below | | | | |
| Amount in dispute (in US\$) | Contract Identification | Total Contract Amount (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: | | | | |
| | n History as indica Amount in dispute (in US\$) | Amount in dispute (in US\$)Contract IdentificationAmount in dispute (in US\$)Image: Contract IdentificationAmount in dispute (in US\$)Name of Client:Address of Client: Address of Client: 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 3 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 Year Year | USD USD 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) | | | | |
| CurrentLiabilities (CL) | | | | |
| | Information from Income Statement | | | |
| 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:

- a) Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies;
- b) Historic financial statements must be audited by a certified public accountant;
- c) 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 PROPOSAL

* If the bidder proposes more than 1 Lots, the bidder must prepare and submit separate technical proposal for each lot, please do not merge the technical proposal for different Lot.

| Name of Bidder: | [Insert Name of Bidder] | of Bidder] Date: Select date | | |
|-----------------|-------------------------------|------------------------------|--|--|
| RFP reference: | [Insert RFP Reference Number] | | | |
| Lot | [insert the proposed Lot] | | | |

The Bidder's proposal should be organized to follow this format of Technical Proposal. 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.

SECTION 1: Bidder's qualification, capacity and experience

Requirements for the Bidder's qualification, capacity and experience can refer to [Section 4. Evaluation Criteria, 1. Eligibility, 2. Qualifications].

Brief description of the organization, including the year and country of incorporation, and types of activities undertaken.

Organizational reputation in design engineering, construction of centralized off-grid solar PV power generation with Energy Storage System (ESS) project, demonstrated by years of relevant experience, list of performing contracts.

Organizational capability which is likely to affect implementation: management structure, project management controls, in-country resources during the contract period, extent to which any work would be subcontracted (if so, provide details), and SOP of quality assurance procedures and risk mitigation measures.

Relevance of specialized knowledge and experience on similar engagements done in the region/country by providing years of relevant experience and list of solar PV with ESS projects done in South East Asia particularly Indonesia. Evidence of your understanding on relevant national and international standard and its applications to construction projects shall also be included.

Organization's commitment to sustainability. Organization is compliant with ISO or equivalent certificates, internal company policy on sustainability.

SECTION 2: Proposed Methodology, Approach and Implementation Plan

This section should demonstrate the bidder's responsiveness to implement **all scope of work** as per TOR (Section 5. Terms of Reference, Part III. Approach and Methodology) by demonstrating how the proposed approach, methodology, and implementation plan meets or exceeds the requirements. All important aspects should be addressed in sufficient detail and different components of the project should be adequately weighted relative to one another.

Detail description on how to address the project's objective, outputs, scope of works, and site analysis, keeping in mind the Indonesian electricity and construction regulation. Describe as well whether the provided solution is proven, recent, and the approach is available in the market. Describe in detail also the basis of choosing the proposed solution to deliver the scope of works Part I to Part IV.

Detail description of the methodology, approach, and implementation plan on how the Bidder will organize, control, and deliver the Scope of Works Part I to Part IV in sustainable manner by providing Project execution plan. This includes the provision of a Gantt Chart or Project Schedule and S curve indicating the detailed sequence of activities that will be undertaken and their corresponding timing, how, and by whom the activities will be delivered. Describe in detail the procurement, staffing, mobilization, and inventories spare part. Details on-the job training implementationand socio-environmental risk management plan (this includes socio-environment risk assessment and environmental management statement letter [SPPL]) shall also be covered. Demonstrate in detail, performance monitoring and evaluating mechanism and tools that is applicable to the project.

Demonstrate the strategy to provide technical support during the after sales service warranty period. Details strategy to ensure components replacement and technical services can be delivered within 14 days starting from initial request by the beneficiaries. Details on the warranty claim procedure and warranty guideline claim.

Any other comments or information regarding the project approach and methodology that will be adopted.

SECTION 3: System Design Conformity

Requirements for system design conformity can refer to (Section 5. Terms of Reference, III. Approach and Methodolgy - A. Part I. *Conduct Detailed Engineering Design to ensure constructability of centralized off-grid solar PV power plant system able to generate, store, transform and distribute the power to the end users, including household & public infrastructure connection*]

Describe in detail the engineering design approach to meet the project's objective in the most efficient approach. This shall include detail engineering design on how to address the system redundancy, reliability, safe socio-environment and operations, system expansion and grid arrival, and system efficiency. Both description and technical drawings of the proposed design shall be included. If applicable, description shall include additional innovative solution that improve the quality of the system.

Bidders shall complete **Annex 6-** Statement on Technical Specifications & Deviations, indicating compliancy with requirements and describing thoroughly in the remarks section any deviation, if applicable. Bidder shall provide copy of Annex 6 in pdf and excel formats.

Bidders shall produce **Bill of Quantity (without price)** in alignmen with the proposed system design and per requirements of the project.

SECTION 4: Management Structure and Key Personnel

Requirements for the Management structure and key personnel can refer to [Section 4. Evaluation Criteria, 3. Detailed Technical Evaluation].

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.

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 Services.

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.] |
| Quantications | [Insert] |
| Professional | [Provide details of professional certifications relevant to the scope of services] |
| certifications | Name of institution: [Insert]Date of certification: [Insert] |
| 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] |
| References | [Provide names, addresses, phone and email contact information for two (2) references] Reference 1: [Insert] |
| | Reference 2: [Insert] |

FORM F: FINANCIAL PROPOSAL SUBMISSION FORM

| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
|-----------------|-------------------------------|-------|-------------|
| RFP reference: | [Insert RFP Reference Number] | | |
| Lot | [insert the proposed Lot] | | |

We, the undersigned, offer to provide the services for [Insert Title of services] in accordance with your Request for Proposal No. [Insert RFP Reference Number] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal and our Financial Proposal sealed under a separate envelope.

Our attached Financial Proposal is for the sum of [Insert amount in words and figures].

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

We understand you are not bound to accept any Proposal you receive.

| Name: | | |
|------------|------|------|
| Title: | | |
| Date: | | |
| Signature: | | |
| | | |

[Stamp with official stamp of the Bidder]

FORM G: FINANCIAL PROPOSAL FORM

* If the bidder proposes more than 1 Lots, the bidder must prepare and submit separate Financiall proposal for each lot, please do not merge the Financial proposal for different Lot.

| Name of Bidder: | [Insert Name of Bidder] | Date: | Select date |
|-----------------|-------------------------------|-------|-------------|
| RFP reference: | [Insert RFP Reference Number] | | |
| Lot | [insert the proposed Lot] | | |

The Bidder is required to prepare the Financial Proposal following the below format in **pdf and excel files, both must be password protected** and submit it in an envelope separate from the Technical Proposal as indicated in the Instruction to Bidders. Any Financial information provided in the Technical Proposal shall lead to Bidder's disqualification.

The Financial Proposal should align with the requirements in the Terms of Reference and the Bidder's Technical Proposal.

Currency of the proposal: [Insert Currency]

Table 1: Summary of Overall Prices

| | Amount(s) |
|-------------------------------------|-----------|
| Professional Fees (from Table 2) | |
| Price Schedule – BoQ (from Table 3) | |
| Total Amount of Financial Proposal | |

| Name | Position | Fee Rate | No. of Days/month s/ hours | Total Amount |
|------|------------------------------|--------------|----------------------------------|-----------------|
| | | A | В | C=A+B |
| | Team Leader | | | |
| | Electrical Engineer | | | |
| | Civil Engineer | | | |
| | Social-Environmental | | | |
| | Compliance Specialist | | | |
| | Site Manager | | | |
| | Site Manager | | | |
| | | Subtotal Pro | fessional Fees: | |
Table 3: Price Schedule – Bill of Quantity - Proposer must provide a price breakdown, excluding the Professional Fees for key personnel (Table 2). This list is not intended to be exhaustive, hence, if needed, and properly justified in the proposal, Proposer is allowed to add new items to the Price Schedule.

| Work Description | UOM (Unit of Measurem ent) | Quantity /Volume | Unit Price | Total Amount |
|---|-------------------------------------|---------------------|------------|--------------|
| Detail design engineering for power plant and remote monitoring, electricity distribution, household/public facility installation. a. Material b. Transport c. Subsistence allowance | | | | |
| d. etc. Social environmental risks assessment a. Material b. Flight ticket c. Local transport c. Subsistence allowance d. etc. | | | | |
| Procurement, mobilization, construction and commissioning a. Materials a.1. Solar PV modules a.2 Inverter a.3. etc b. Labor c. Freight (Incoterms 2020: Delivered at Place/DAP. UNDP is exempted from tax thus bid winner shall liaise with UNDP to obtain PP 19 for Tax Exemption for importation goods) d. Flight ticket e. Local transport f Subsistence allowance | | | | |

| g. etc | | | |
|------------------------------|--|--|--|
| On the job training of local | | | |
| operators | | | |
| a | | | |
| b | | | |
| Warranty and After-sale | | | |
| service (2 years) | | | |
| a | | | |
| b | | | |
| | | | |
| Si | | | |
| | | | |

Table 4: Breakdown of Price per Deliverable/Activity

| Deliverable/ Activity description | Professional Fees for Key Personnel (Table 2) | BoQ Price (Table 3) | Total | Percentage |
|--|--|------------------------|-------|------------|
| Deliverable 1 Detailed engineering design (DED) of the centralized off-grid solar PV power plant system, distribution lines and household connection in selected Lot in ACCESS project target locations (Table 2) approved by UNDP for construction, including social and environmental risk assessment and mitigation measures. | | | | |
| Deliverable 2 Procurement, mobilization, construction, commissioning and well performing centralized off-grid solar PV power plant system in selected Lot in the ACCESS project target locations (Table 2), in compliance with social and environmental standards. | | | | |
| Deliverable 3 Provision of operation and maintenance manual and on the job training for at least 6 local operators in each of locations in selected Lot. | | | | |
| Deliverable 4 Manufacturer's warranty claim procedures for main solar PV components and two years maintenance warranty period all- inclusive for spare-parts replacement, installation, transportation and service personnel. | | | | |

FORM H: FORM OF PROPOSAL SECURITY

Proposal 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 Proposal to UNDP dated Click here to enter a date. to execute Services [Insert Title of Services] (hereinafter called "the Proposal"):

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 in the event that the Bidder:

- a) Fails to sign the Contract after UNDP has awarded it;
- b) Withdraws its Proposal after the date of the opening of the Proposals;
- c) Fails to comply with UNDP's variation of requirement, as per RFP 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 this 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 Proposal 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: | |
|--------------|--|
| Name: | |
| Title: | |
| Date: | |
| Name of Bank | |
| Address | |
| | |

[Stamp with official stamp of the Bank]