



*Empowered lives.
Resilient nations.*

INVITATION TO BID

Supply, Installation and Commissioning of Domestic Grid tied Solar PV System with Battery Storage

ITB No.: ITB/NAMA/2018/29

Project: Global Environment Fund (GEF) funded Project on "Nationally Appropriate Mitigation Actions (NAMA) in the Energy Generation and End-Use Sectors in Sri Lanka

Country: Sri Lanka

Issued on: 8 October 2018

Contents

Section 1. Letter of Invitation.....	4
Section 2. Instruction to Bidders	5
A. GENERAL PROVISIONS.....	5
1. Introduction.....	5
2. Fraud & Corruption, Gifts and Hospitality.....	5
3. Eligibility.....	5
4. Conflict of Interests	6
B. PREPARATION OF BIDS.....	6
5. General Considerations.....	6
6. Cost of Preparation of Bid	7
7. Language	7
8. Documents Comprising the Bid.....	7
9. Documents Establishing the Eligibility and Qualifications of the Bidder.....	7
10. Technical Bid Format and Content.....	7
11. Price Schedule	7
12. Bid Security	7
13. Currencies.....	8
14. Joint Venture, Consortium or Association	8
15. Only One Bid.....	9
16. Bid Validity Period.....	9
17. Extension of Bid Validity Period	9
18. Clarification of Bid (from the Bidders)	10
19. Amendment of Bids.....	10
20. Alternative Bids	10
21. Pre-Bid Conference.....	10
C. SUBMISSION AND OPENING OF BIDS.....	11
22. Submission.....	11
Hard copy (manual) submission.....	11
Email and eTendering submissions.....	11
23. Deadline for Submission of Bids and Late Bids	11
24. Withdrawal, Substitution, and Modification of Bids	12
25. Bid Opening.....	12
D. EVALUATION OF BIDS.....	12
26. Confidentiality.....	12

27. Evaluation of Bids.....	12
28. Preliminary Examination.....	13
29. Evaluation of Eligibility and Qualification	13
30. Evaluation of Technical Bid and prices.....	13
31. Due diligence	13
32. Clarification of Bids.....	14
33. Responsiveness of Bid.....	14
34. Nonconformities, Reparable Errors and Omissions.....	14
E. AWARD OF CONTRACT.....	15
35. Right to Accept, Reject, Any or All Bids	15
36. Award Criteria	15
37. Debriefing.....	15
38. Right to Vary Requirements at the Time of Award	15
39. Contract Signature.....	15
40. Contract Type and General Terms and Conditions.....	15
41. Performance Security.....	15
42. Bank Guarantee for Advanced Payment.....	15
43. Liquidated Damages	16
44. Payment Provisions	16
45. Vendor Protest	16
46. Other Provisions	16
Section 3. Bid Data Sheet.....	17
Section 4. Evaluation Criteria	20
Section 5a: Schedule of Requirements and Technical Specifications/Bill of Quantities	22
Section 5b: Other Related Requirements	22
Section 6: Returnable Bidding Forms / Checklist	24
Form A: Bid Submission Form	25
Form B: Bidder Information Form.....	26
Form C: Joint Venture/Consortium/Association Information Form	28
Form D: Eligibility and Qualification Form	29
Form E: Technical Bid FORMAT	32

Section 1. Letter of Invitation

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

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

- Section 1: This Letter of Invitation
- Section 2: Instruction to Bidders
- Section 3: Bid Data Sheet (BDS)
- Section 4: Evaluation Criteria
- Section 5: Schedule of Requirements and Technical Specifications
- Section 6: Returnable Bidding Forms
 - Form A: Bid Submission Form
 - Form B: Bidder Information Form
 - Form C: Joint Venture/Consortium/Association Information Form
 - Form D: Qualification Form
 - Form E: Format of Technical Bid
 - Form F: Price Schedule
 - Form G: Form of Bid Security

If you are interested in submitting a Bid in response to this ITB, please prepare your Bid in accordance with the requirements and procedure as set out in this ITB and submit it by the Deadline for Submission of Bids set out in Bid Data Sheet.

Please acknowledge receipt of this ITB by sending an email to procurement.lk@undp.org, indicating whether you intend to submit a Bid or otherwise. Should you require further clarifications, kindly communicate with the contact person/s identified in the attached Data Sheet as the focal point for queries on this ITB.

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

Issued by

Approved by:

Name: Nilmini Jayatilake
Title: Operation Associate
Date: **October 8, 2018**

Name: Chanaka Liyanage
Title: Head of Procurement and Administration
Date: **October 8, 2018**

Section 2. Instruction to Bidders

GENERAL PROVISIONS

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

	<p>these organizations.</p> <p>3.2 It is the Bidder's responsibility to ensure that its employees, joint venture members, sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by UNDP.</p>
4. Conflict of Interests	<p>4.1 Bidders must strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. Bidders found to have a conflict of interest shall be disqualified. Without limitation on the generality of the above, Bidders, and any of their affiliates, shall be considered to have a conflict of interest with one or more parties in this solicitation process, if they:</p> <ul style="list-style-type: none"> 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 goods and/or services requested under this ITB; or c) Are found to be in conflict for any other reason, as may be established by, or at the discretion of UNDP. <p>4.2 In the event of any uncertainty in the interpretation of a potential conflict of interest, Bidders must disclose to UNDP, and seek UNDP's confirmation on whether or not such conflict exists.</p> <p>4.3 Similarly, the Bidders must disclose in their Bid their knowledge of the following:</p> <ul style="list-style-type: none"> a) If the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel who are family members of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving goods and/or services under this ITB; and b) All other circumstances that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices. <p>Failure to disclose such an information may result in the rejection of the Bid or Bids affected by the non-disclosure.</p> <p>4.4 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 ITB, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Bid.</p>
B. PREPARATION OF BIDS	
5. General Considerations	<p>5.1 In preparing the Bid, the Bidder is expected to examine the ITB in detail. Material deficiencies in providing the information requested in the ITB may result in rejection of the Bid.</p> <p>5.2 The Bidder will not be permitted to take advantage of any errors or omissions in the ITB. Should such errors or omissions be discovered, the Bidder must notify the UNDP accordingly.</p>

6. Cost of Preparation of Bid	6.1 The Bidder shall bear all costs related to the preparation and/or submission of the Bid, regardless of whether its Bid is selected or not. UNDP shall not be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.
7. Language	7.1 The Bid, as well as any and all related correspondence exchanged by the Bidder and UNDP, shall be written in the language (s) specified in the BDS.
8. Documents Comprising the Bid	8.1 The Bid shall comprise of the following documents and related forms which details are provided in the BDS: <ul style="list-style-type: none"> a) Documents Establishing the Eligibility and Qualifications of the Bidder; b) Technical Bid; c) Price Schedule; d) Bid Security, if required by BDS; e) Any attachments and/or appendices to the Bid.
9. Documents Establishing the Eligibility and Qualifications of the Bidder	9.1 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 Bid Format and Content	10.1 The Bidder is required to submit a Technical Bid using the Standard Forms and templates provided in Section 6 of the ITB. 10.2 Samples of items, when required as per Section 5 and other condition specified in Annex 2 (Technical Specification), shall be provided within the time specified and unless otherwise specified by the Purchaser, at no expense to the UNDP. If not destroyed by testing, samples will be returned at Bidder's request and expense, unless otherwise specified. 10.3 When applicable and required as per Section 5 and other condition specified in Annex 2 (Technical Specification), the Bidder shall describe the necessary training programme available for the maintenance and operation of the equipment offered as well as the cost to the UNDP. Unless otherwise specified, such training as well as training materials shall be provided in the language of the Bid as specified in the BDS. 10.4 When applicable and required as per Section 5 and other condition specified in Annex 2 (Technical Specification), the Bidder shall certify the availability of spare parts for a period of at least five (5) years from date of delivery, or as otherwise specified in this ITB.
11. Price Schedule	11.1 The Price Schedule shall be prepared using the Form provided in Section 6 of the ITB and taking into consideration the requirements in the ITB. 11.2 Any requirement described in the Technical Bid but not priced in the Price Schedule, shall be assumed to be included in the prices of other activities or items, as well as in the final total price.
12. Bid Security	12.1 A Bid Security, if required by BDS, shall be provided in the amount and form indicated in the BDS. The Bid Security shall be valid for a minimum of thirty (30)

	<p>days after the final date of validity of the Bid.</p> <p>12.2 The Bid Security shall be included along with the Bid. If Bid Security is required by the ITB but is not found in the Bid, the offer shall be rejected.</p> <p>12.3 If the Bid Security amount or its validity period is found to be less than what is required by UNDP, UNDP shall reject the Bid.</p> <p>12.4 In the event an electronic submission is allowed in the BDS, Bidders shall include a copy of the Bid Security in their bid and the original of the Bid Security must be sent via courier or hand delivery as per the instructions in BDS.</p> <p>12.5 The Bid Security may be forfeited by UNDP, and the Bid rejected, in the event of any, or combination, of the following conditions:</p> <ul style="list-style-type: none"> a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or; b) In the event the successful Bidder fails: <ul style="list-style-type: none"> i. to sign the Contract after UNDP has issued an award; or ii. 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	<p>13.1 All prices shall be quoted in the currency or currencies indicated in the BDS. Where Bids are quoted in different currencies, for the purposes of comparison of all Bids:</p> <ul style="list-style-type: none"> a) UNDP will convert the currency quoted in the Bid into the UNDP preferred currency, in accordance with the prevailing UN operational rate of exchange on the last day of submission of Bids; and b) In the event that UNDP selects a Bid for award that is quoted in a currency different from the preferred currency in the BDS, UNDP shall reserve the right to award the contract in the currency of UNDP's preference, using the conversion method specified above.
14. Joint Venture, Consortium or Association	<p>14.1 If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by a duly notarized Agreement among the legal entities, and submitted with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture.</p> <p>14.2 After the Deadline for Submission of Bid, the lead entity identified to represent the JV, Consortium or Association shall not be altered without the prior written consent of UNDP.</p> <p>14.3 The lead entity and the member entities of the JV, Consortium or Association shall abide by the provisions of Clause 15 herein in respect of submitting only one Bid.</p> <p>14.4 The description of the organization of the JV, Consortium or Association must clearly define the expected role of each of the entities in the joint venture in delivering the requirements of the ITB, both in the Bid and the JV, Consortium</p>

	<p>or Association Agreement. All entities that comprise the JV, Consortium or Association shall be subject to the eligibility and qualification assessment by UNDP.</p> <p>14.5 A JV, Consortium or Association in presenting its track record and experience should clearly differentiate between:</p> <ul style="list-style-type: none"> 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. <p>14.6 Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the JV, Consortium or Association or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials</p> <p>14.7 JV, Consortium or Associations are encouraged for high value, multi-sectoral requirements when the spectrum of expertise and resources required may not be available within one firm.</p>
15. Only One Bid	<p>15.1 The Bidder (including the individual members of any Joint Venture) shall submit only one Bid, either in its own name or as part of a Joint Venture.</p> <p>15.2 Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:</p> <ul style="list-style-type: none"> a) they have at least one controlling partner, director or shareholder in common; or b) any one of them receive or have received any direct or indirect subsidy from the other/s; or c) they have the same legal representative for purposes of this ITB; or d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of another Bidder regarding this ITB process; e) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this ITB process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.
16. Bid Validity Period	<p>16.1 Bids shall remain valid for the period specified in the BDS, commencing on the Deadline for Submission of Bids. A Bid valid for a shorter period may be rejected by UNDP and rendered non-responsive.</p> <p>16.2 During the Bid validity period, the Bidder shall maintain its original Bid without any change, including the availability of the Key Personnel, the proposed rates and the total price.</p>
17. Extension of Bid Validity Period	<p>17.1 In exceptional circumstances, prior to the expiration of the Bid validity period, UNDP may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing, and shall be considered integral to the Bid.</p>

	<p>17.2 If the Bidder agrees to extend the validity of its Bid, it shall be done without any change to the original Bid.</p> <p>17.3 The Bidder has the right to refuse to extend the validity of its Bid, in which case, the Bid shall not be further evaluated.</p>
18. Clarification of Bid (from the Bidders)	<p>18.1 Bidders may request clarifications on any of the ITB documents no later than the date indicated in the BDS. Any request for clarification must be sent in writing in the manner indicated in the BDS. If inquiries are sent other than specified channel, even if they are sent to a UNDP staff member, UNDP shall have no obligation to respond or confirm that the query was officially received.</p> <p>18.2 UNDP will provide the responses to clarifications through the method specified in the BDS.</p> <p>18.3 UNDP shall endeavour to provide responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of UNDP to extend the submission date of the Bids, unless UNDP deems that such an extension is justified and necessary.</p>
19. Amendment of Bids	<p>19.1 At any time prior to the deadline of Bid submission, UNDP may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of an amendment to the ITB. Amendments will be made available to all prospective bidders.</p> <p>19.2 If the amendment is substantial, UNDP may extend the Deadline for submission of Bid to give the Bidders reasonable time to incorporate the amendment into their Bids.</p>
20. Alternative Bids	<p>20.1 Unless otherwise specified in the BDS, alternative Bids shall not be considered. If submission of alternative Bid is allowed by BDS, a Bidder may submit an alternative Bid, but only if it also submits a Bid conforming to the ITB requirements. Where the conditions for its acceptance are met, or justifications are clearly established, UNDP reserves the right to award a contract based on an alternative Bid.</p> <p>20.2 If multiple/alternative bids are being submitted, they must be clearly marked as "Main Bid" and "Alternative Bid"</p>
21. Pre-Bid Conference	<p>21.1 When appropriate, a pre-bid conference will be conducted at the date, time and location specified in the BDS. All Bidders are encouraged to attend. Non-attendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder's conference will be disseminated on the procurement website and shared by email or on the e-Tendering platform as specified in the BDS. No verbal statement made during the conference shall modify the terms and conditions of the ITB, unless specifically incorporated in the Minutes of the Bidder's Conference or issued/posted as an amendment to ITB.</p>

C. SUBMISSION AND OPENING OF BIDS

22. Submission	<p>22.1 The Bidder shall submit a duly signed and complete Bid comprising the documents and forms in accordance with requirements in the BDS. The Price Schedule shall be submitted together with the Technical Bid. Bid can be delivered either personally, by courier, or by electronic method of transmission as specified in the BDS.</p> <p>22.2 The Bid shall be signed by the Bidder or person(s) duly authorized to commit the Bidder. The authorization shall be communicated through a document evidencing such authorization issued by the legal representative of the bidding entity, or a Power of Attorney, accompanying the Bid.</p> <p>22.3 Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder fully accepts the UNDP General Contract Terms and Conditions.</p>
Hard copy (manual) submission	<p>22.4 Hard copy (manual) submission by courier or hand delivery allowed or specified in the BDS shall be governed as follows:</p> <p>a) The signed Bid shall be marked "Original", and its copies marked "Copy" as appropriate. The number of copies is indicated in the BDS. All copies shall be made from the signed original only. If there are discrepancies between the original and the copies, the original shall prevail.</p> <p>(b) The Technical Bid and Price Schedule must be sealed and submitted together in an envelope, which shall:</p> <ul style="list-style-type: none"> i. Bear the name of the Bidder; ii. Be addressed to UNDP as specified in the BDS; and iii. Bear a warning not to open before the time and date for Bid opening as specified in the BDS. <p>If the envelope with the Bid is not sealed and marked as required, UNDP shall assume no responsibility for the misplacement, loss, or premature opening of the Bid.</p>
Email and eTendering submissions	<p>22.5 Electronic submission through email or eTendering, if allowed as specified in the BDS, shall be governed as follows:</p> <p>a) Electronic files that form part of the Bid must be in accordance with the format and requirements indicated in BDS;</p> <p>b) Documents which are required to be in original form (e.g. Bid Security, etc.) must be sent via courier or hand delivered as per the instructions in BDS.</p> <p>22.6 Detailed instructions on how to submit, modify or cancel a bid in the eTendering system are provided in the eTendering system Bidder User Guide and Instructional videos available on this link: http://www.undp.org/content/undp/en/home/operations/procurement/business/procurement-notices/resources/</p>
23. Deadline for Submission of Bids and Late Bids	<p>23.1 Complete Bids must be received by UNDP in the manner, and no later than the date and time, specified in the BDS. UNDP shall only recognise the actual date and time that the bid was received by UNDP</p> <p>23.2 UNDP shall not consider any Bid that is received after the deadline for the</p>

	submission of Bids.
24. Withdrawal, Substitution, and Modification of Bids	<p>24.1 A Bidder may withdraw, substitute or modify its Bid after it has been submitted at any time prior to the deadline for submission.</p> <p>24.2 Manual and Email submissions: A bidder may withdraw, substitute or modify its Bid by sending a written notice to UNDP, duly signed by an authorized representative, and shall include a copy of the authorization (or a Power of Attorney). The corresponding substitution or modification of the Bid, if any, must accompany the respective written notice. All notices must be submitted in the same manner as specified for submission of Bids, by clearly marking them as "WITHDRAWAL" "SUBSTITUTION," or "MODIFICATION"</p> <p>24.3 eTendering: A Bidder may withdraw, substitute or modify its Bid by Cancelling, Editing, and re-submitting the Bid directly in the system. It is the responsibility of the Bidder to properly follow the system instructions, duly edit and submit a substitution or modification of the Bid as needed. Detailed instructions on how to cancel or modify a Bid directly in the system are provided in the Bidder User Guide and Instructional videos.</p> <p>24.4 Bids requested to be withdrawn shall be returned unopened to the Bidders (only for manual submissions), except if the bid is withdrawn after the bid has been opened.</p>
25. Bid Opening	<p>25.1 UNDP will open the Bid in the presence of an ad-hoc committee formed by UNDP of at least two (2) members.</p> <p>25.2 The Bidders' names, modifications, withdrawals, the condition of the envelope labels/seals, the number of folders/files and all other such other details as UNDP may consider appropriate, will be announced at the opening. No Bid shall be rejected at the opening stage, except for late submissions, in which case, the Bid shall be returned unopened to the Bidders.</p> <p>25.3 In the case of e-Tendering submission, bidders will receive an automatic notification once the Bid is opened.</p>
D. EVALUATION OF BIDS	
26. Confidentiality	<p>26.1 Information relating to the examination, evaluation, and comparison of Bids, and the recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process, even after publication of the contract award.</p> <p>26.2 Any effort by a Bidder or anyone on behalf of the Bidder to influence UNDP in the examination, evaluation and comparison of the Bids or contract award decisions may, at UNDP's decision, result in the rejection of its Bid and may subsequently be subject to the application of prevailing UNDP's vendor sanctions procedures.</p>
27. Evaluation of Bids	<p>27.1 UNDP will conduct the evaluation solely on the basis of the Bids received.</p> <p>27.2 Evaluation of Bids shall be undertaken in the following steps:</p> <ul style="list-style-type: none"> a) Preliminary Examination including Eligibility b) Arithmetical check and ranking of bidders who passed preliminary examination by price. c) Qualification assessment (if pre-qualification was not done)

	<ul style="list-style-type: none"> a) Evaluation of Technical Bids b) Evaluation of prices <p>Detailed evaluation will be focussed on the 3 - 5 lowest priced bids. Further higher priced bids shall be added for evaluation if necessary</p>
28. Preliminary Examination	<p>28.1 UNDP shall examine the Bids to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, and whether the Bids are generally in order, among other indicators that may be used at this stage. UNDP reserves the right to reject any Bid at this stage.</p>
29. Evaluation of Eligibility and Qualification	<p>29.1 Eligibility and Qualification of the Bidder will be evaluated against the Minimum Eligibility/Qualification requirements specified in the Section 4 (Evaluation Criteria) and other criteria specified in section C of Annex 1.</p> <p>29.2 In general terms, vendors that meet the following criteria may be considered qualified:</p> <ul style="list-style-type: none"> a) They are not included in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers, and in UNDP's ineligible vendors' list; b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments; c) They have the necessary similar experience, technical expertise, production capacity, quality certifications, quality assurance procedures and other resources applicable to the supply of goods and/or services required; d) They are able to comply fully with the UNDP General Terms and Conditions of Contract; e) They do not have a consistent history of court/arbitral award decisions against the Bidder; and f) They have a record of timely and satisfactory performance with their clients.
30. Evaluation of Technical Bid and prices	<p>30.1 The evaluation team shall review and evaluate the Technical Bids on the basis of their responsiveness to the Schedule of Requirements and Technical Specifications and other documentation provided, applying the procedure indicated in the BDS and other ITB documents. When necessary, and if stated in the BDS, UNDP may invite technically responsive bidders for a presentation related to their technical Bids. The conditions for the presentation shall be provided in the bid document where required.</p>
31. Due diligence	<p>31.1 UNDP reserves the right to undertake a due diligence exercise, aimed at determining to its satisfaction, the validity of the information provided by the Bidder. Such exercise shall be fully documented and may include, but need not be limited to, all or any combination of the following:</p> <ul style="list-style-type: none"> a) Verification of accuracy, correctness and authenticity of information provided by the Bidder; b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team; c) Inquiry and reference checking with Government entities with jurisdiction on the Bidder, or with previous clients, or any other entity that may have done business with the Bidder; d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of previous

	<p>works, as deemed necessary;</p> <p>e) Physical inspection of the Bidder's offices, branches or other places where business transpires, with or without notice to the Bidder;</p> <p>f) Other means that UNDP may deem appropriate, at any stage within the selection process, prior to awarding the contract.</p>
32. Clarification of Bids	<p>32.1 To assist in the examination, evaluation and comparison of Bids, UNDP may, at its discretion, request any Bidder for a clarification of its Bid.</p> <p>32.2 UNDP's request for clarification and the response shall be in writing and no change in the prices or substance of the Bid shall be sought, offered, or permitted, except to provide clarification, and confirm the correction of any arithmetic errors discovered by UNDP in the evaluation of the Bids, in accordance with the ITB.</p> <p>32.3 Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by UNDP, shall not be considered during the review and evaluation of the Bids.</p>
33. Responsiveness of Bid	<p>33.1 UNDP's determination of a Bid's responsiveness will be based on the contents of the bid itself. A substantially responsive Bid is one that conforms to all the terms, conditions, specifications and other requirements of the ITB without material deviation, reservation, or omission.</p> <p>33.2 If a bid 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.</p>
34. Nonconformities, Reparable Errors and Omissions	<p>34.1 Provided that a Bid is substantially responsive, UNDP may waive any non-conformities or omissions in the Bid that, in the opinion of UNDP, do not constitute a material deviation.</p> <p>34.2 UNDP may request the Bidder to submit the necessary information or documentation, within a reasonable period, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.</p> <p>34.3 For the bids that have passed the preliminary examination, UNDP shall check and correct arithmetical errors as follows:</p> <p>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;</p> <p>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</p> <p>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.</p> <p>34.4 If the Bidder does not accept the correction of errors made by UNDP, its Bid shall</p>

	be rejected.
E. AWARD OF CONTRACT	
35. Right to Accept, Reject, Any or All Bids	35.1 UNDP reserves the right to accept or reject any bid, to render any or all of the bids as non-responsive, and to reject all Bids 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	36.1 Prior to expiration of the period of Bid validity, UNDP shall award the contract to the qualified and eligible Bidder that is found to be responsive to the requirements of the Schedule of Requirements and Technical Specification, and has offered the lowest price.
37. Debriefing	37.1 In the event that a Bidder is unsuccessful, the Bidder may request for 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 Bids for UNDP procurement opportunities. The content of other Bids and how they compare to the Bidder's submission shall not be discussed.
38. Right to Vary Requirements at the Time of Award	38.1 At the time of award of Contract, UNDP reserves the right to vary the quantity of goods and/or services, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.
39. Contract Signature	39.1 Within fifteen (15) days from the date of receipt of the Contract, the successful Bidder shall sign and date the Contract and return it to UNDP. Failure to do so may constitute sufficient grounds for the annulment of the award, and forfeiture of the Bid Security, if any, and on which event, UNDP may award the Contract to the Second highest rated or call for new Bids.
40. Contract Type and General Terms and Conditions	40.1 The types of Contract to be signed and the applicable UNDP Contract General Terms and Conditions, as specified in BDS, can be accessed at http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html
41. Performance Security	41.1 A performance security, if required in the BDS, shall be provided in the amount specified in BDS and form available at https://popp.undp.org/layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Solicitation_Performance%20Guarantee%20Form.docx&action=default within a maximum of fifteen (15) days of the contract signature by both parties. Where a performance security is required, the receipt of the performance security by UNDP shall be a condition for rendering the contract effective.
42. Bank Guarantee for Advanced Payment	42.1 Except when the interests of UNDP so require, it is UNDP's standard practice to not make advance payment(s) (i.e., payments without having received any outputs). If an advance payment is allowed as per the BDS, and exceeds 20% of the total contract price, or USD 30,000, whichever is less, the Bidder shall submit a Bank Guarantee in the full amount of the advance payment in the form available at

	https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Contract%20Management%20Payment%20and%20Taxes_Advanced%20Payment%20Guarantee%20Form.docx&action=default
43. Liquidated Damages	<p>43.1 If specified in the BDS, UNDP shall apply Liquidated Damages for the damages and/or risks caused to UNDP resulting from the Contractor's delays or breach of its obligations as per Contract.</p>
44. Payment Provisions	<p>44.1 Payment will be made only upon UNDP's acceptance of the goods and/or services performed. The terms of payment shall be within thirty (30) days, after receipt of invoice and certification of acceptance of goods and/or services issued by the proper authority in UNDP with direct supervision of the Contractor. Payment will be effected by bank transfer in the currency of the contract.</p>
45. Vendor Protest	<p>45.1 UNDP's vendor protest procedure provides an opportunity for appeal to those persons or firms not awarded a contract through a competitive procurement process. In the event that a Bidder believes that it was not treated fairly, the following link provides further details regarding UNDP vendor protest procedures: http://www.undp.org/content/undp/en/home/procurement/business/protest-and-sanctions.html</p>
46. Other Provisions	<p>46.1 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 goods and/or services, UNDP shall be entitled to the same lower price. The UNDP General Terms and Conditions shall have precedence.</p> <p>46.2 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.</p> <p>46.3 The United Nations has established restrictions on employment of (former) UN staff who have been involved in the procurement process as per bulletin ST/SGB/2006/15 http://www.un.org/en/ga/search/view_doc.asp?symbol=ST/SGB/2006/15&referer</p>

Section 3. Bid Data Sheet

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

BDS No.	Ref. to Section.2	Data	Specific Instructions / Requirements
1	7	Language of the Bid	English
2		Submitting Bids for Parts or sub-parts of the Schedule of Requirements (partial bids)	Not Allowed
3	20	Alternative Bids	Shall not be considered
4	21	Pre-Bid conference	<p>Will be Conducted Time: 02.00PM Colombo, Sri Lanka Date : October 16, 2018 2:00 PM Venue : Boardroom of Sri Lanka Sustainable Energy Authority, Block 5, 1st Floor, BMICH, Bauddhaloka Mawatha, Colombo 07, Sri Lanka</p> <p>The UNDP focal point for the arrangement is: Mr. Gayan Subasinghe (Project Coordinator) Telephone: +94 772 911313 E-mail: gayan.subasinghe@undp.org</p>
5	16	Bid Validity Period	90 days
6	13	Bid Security	<p>Required in the amount of USD 3,000 or LKR 500,000 for local bidders</p> <p>Acceptable Forms of Bid Security</p> <ul style="list-style-type: none"> ▪ Bank Guarantee (See FORM G for template)
7	41	Advanced Payment upon signing of contract	Allowed up to a maximum of 20 % of contract value upon a bank guarantee for the full advance payment.

8	42	Liquidated Damages	Will be imposed as follows: Percentage (%) of total contract price per day of delay: 0.1 Max. number of days of delay: 45
9	40	Performance Security	Required in the amount of USD 10,000 or LKR 1,692,500
10	12	Currency of Bid	United States Dollar for International bidders and LKR for local bidders
11	31	Deadline for submitting requests for clarifications/ questions	05 days before the submission deadline
12	31	Contact Details for submitting clarifications/questions	Focal Person in UNDP: Mr. Gayan Subasinghe Address: 202-204, Bauddhaloka Mawatha, Colombo 7 E-mail address: gayan.subasinghe@undp.org
13	18, 19 and 21	Manner of Disseminating Supplemental Information to the ITB and responses/clarifications to queries	Direct communication to prospective Proposers by email
14	23	Deadline for Submission	2pm Sri Lanka Time 29 th October 2018
14	22	Allowable Manner of Submitting Bids	<input checked="" type="checkbox"/> Courier/Hand Delivery <input checked="" type="checkbox"/> Submission by email
15	22	Bid Submission Address	Email: procurement.lk@undp.org Courier/Hand Delivery Address: UNDP Procurement Division 202-204, Bauddhaloka Mawatha, Colombo 7
16	22	Electronic submission (email or eTendering) requirements	<ul style="list-style-type: none"> ▪ 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. ▪ Max. File Size per transmission: 15MB <ul style="list-style-type: none"> ▪ Mandatory subject of email: ITB/NAMA/2018/29 ▪ Documents which are required in original (e.g. Bid Security) should be sent to the below address with a PDF copy submitted as part of the electronic submission: UNDP, 202-204, Bauddhaloka Mawatha, Colombo 7, Sri Lanka.

17	25	Date, time and venue for the opening of bid	Date and Time: October 29, 2018 2:30 PM Venue: FAO conference room, 202-204, Bauddhaloka Mawatha, Colombo 7, Sri Lanka.
18	27, 36	Evaluation Method for the Award of Contract	Lowest priced technically responsive, eligible and qualified bid.
19		Expected date for commencement of Contract	<i>November 15, 2018</i>
20		Maximum expected duration of contract	6 Months
21	35	UNDP will award the contract to:	One Proposer Only
22	39	Type of Contract	Contract for Goods and/or Services to UNDP http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html
23	39	UNDP Contract Terms and Conditions that will apply	UNDP General Terms and Conditions for Contracts http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html
24		Other Information Related to the ITB	Please refer Annex 1 and Annex 2 to this document

Section 4. Evaluation Criteria

Preliminary Examination Criteria

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

- Appropriate signatures
- Power of Attorney
- Minimum Bid documents provided
- Bid Validity
- Bid Security submitted as per ITB requirements with compliant validity period (120 days from bid closing date)

Minimum Eligibility and Qualification Criteria

Eligibility and Qualification will be evaluated on a Pass/Fail basis.

If the Bid is submitted as a Joint Venture/Consortium/Association, each member should meet the minimum criteria, unless otherwise specified.

Subject	Criteria	Document Submission requirement
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 ITB clause 3.	Form A: Bid Submission Form
Conflict of Interest	No conflicts of interest in accordance with ITB clause 4.	Form A: Bid Submission Form
Bankruptcy	Has not declared bankruptcy, is not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against the vendor that could impair its operations in the foreseeable future.	Form A: Bid Submission Form
Certificates and Licenses	<ul style="list-style-type: none">▪ Duly authorized to act as Agent on behalf of the Manufacturer, or Power of Attorney, if bidder is not a manufacturer▪ Official appointment as local representative, if Bidder is submitting a Bid on behalf of an entity located outside the country▪ Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder▪ Export/Import Licenses, if applicable	Form B: Bidder Information Form
Additional mandatory criteria	<ul style="list-style-type: none">▪ Kindly refer Section C of Annex 1 for additional criteria	Proof of registration certificate issued by

		Sri Lanka Sustainable Energy Authority
QUALIFICATION		
History of Non-Performing Contracts¹	Non-performance of a contract did not occur as a result of contractor default for the last 3 years.	Form D: Qualification Form
Litigation History	No consistent history of court/arbitral award decisions against the Bidder for the last 3 years.	Form D: Qualification Form
Previous Experience	Minimum 03 years of relevant experience.	Form D: Qualification Form
	Minimum 03 contracts of similar value, nature and complexity implemented over the last 03years. <i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i>	Form D: Qualification Form
Financial Standing	Minimum average annual turnover of USD 445,000 or LKR 75 Million for the last 3 years. <i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i>	Form D: Qualification Form
	Bidder must demonstrate the current soundness of its financial standing and indicate its prospective long-term profitability. <i>(For JV/Consortium/Association, all Parties cumulatively should meet requirement).</i>	Form D: Qualification Form
Technical Evaluation	The technical bids shall be evaluated on a pass/fail basis for compliance or non-compliance with the technical specifications identified in the bid document.	Form E: Technical Bid Form
	Refer Annex 2 for the required technical specification	
Financial Evaluation	Detailed analysis of the price schedule based on requirements listed in Section 5 and quoted for by the bidders in Form F. Price comparison shall be based on the landed price, including transportation, insurance and the total cost of ownership (including spare parts, consumption, installation, commissioning, training, special packaging, data monitoring etc., where applicable) Comparison with budget/internal estimates.	Form F: Price Schedule Form

¹ 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.

Section 5a: Schedule of Requirements and Technical Specifications/Bill of Quantities

#	Item to be supplied Description/Specifications ²	Quantity	Delivery Date	Other Information
1	Solar PV modules	20 x 2KW _p	12 weeks from the date of contract signing	Kindly refer Annex 2 for technical specification
2	Inverter (Hybrid)	20 x 2KW _{ac}		
3	Batteries (Li-ion)	1.5kWh x 6 units 2.5kWh x 8 systems 3.75kWh x 6 systems		
4	All other accessories and components (cable, switches protection etc) please list and provide information below	20 sets		
5	Installation Cost	For 20 systems		
6	Proposed configuration for remote monitoring of solar PV systems (Wi-fi router/internet connection etc)	20 units	Commissioning date	
7	Maintenance agreement for 2 years	20		

The bidder is required to study the specification provided in Annex 2

Section 5b: Other Related Requirements

Further to the Schedule of Requirements in the preceding Table, Bidders are requested to take note of the following additional requirements, conditions, and related services pertaining to the fulfillment of the requirements: *[check the condition that applies to this ITB, delete the entire row if condition is not applicable to the goods being procured]*

Delivery Term [INCOTERMS 2010] (Pls. link this to price schedule)	DDP Kurunegala Sri Lanka
Exact Address of Delivery/Installation Location	20 Locations in Kurunegala City area in Sri Lanka

² Clustering items by lots, if any, is recommended, especially if partial bids will be allowed.

Mode of Transport Preferred	Air/ Land
UNDP Preferred Freight Forwarder, if any ³	Not Applicable
Distribution of shipping documents (if using freight forwarder)	Not Applicable
Customs, if required, clearing shall be done by:	Supplier
Ex-factory / Pre-shipment inspection	Not required
Inspection upon delivery	UNDP will inspect upon delivery
Installation Requirements	Please refer section 1.5, 1.6, 1.8 and 1.9 of Annex 2
Testing Requirements	Please refer section 1.7, section 3 & 5 of Annex 2
Scope of Training on Operation and Maintenance	Please refer section 4 of Annex 2
Commissioning	Please refer section 1.9, and section 3 and 5 of Annex 2
Warranty Period	Please refer section 2 of Form E
Local Service Support	Please refer section 1.7 and section 4 of Annex 2
Technical Support Requirements	Please refer section 1.7 and section 4 of Annex 2
After-sale services Requirements	<input checked="" type="checkbox"/> Warranty on Parts and Labor for minimum period specified in Section 2 of Form E <input checked="" type="checkbox"/> Technical Support Please refer section 1.7 and section 4 of Annex 2 <input checked="" type="checkbox"/> Others Please refer section 4 of Annex 2
Payment Terms (max. advanced payment is 20% as per UNDP policy)	Other: Please refer section F of Annex 1
Conditions for Release of Payment	<input type="checkbox"/> Pre-shipment inspection <input type="checkbox"/> Inspection upon arrival at destination <input checked="" type="checkbox"/> Installation <input checked="" type="checkbox"/> Testing <input checked="" type="checkbox"/> Training on Operation and Maintenance <input type="checkbox"/> Others [pls. specify] <input checked="" type="checkbox"/> Written Acceptance of Goods based on full compliance with ITB requirements
All documentations, including catalogues, instructions and operating manuals, shall be in this language	English

³A factor of the Incoterms stipulated in the ITB. The use of a UNDP preferred freight forwarder may be considered for purposes of ensuring forwarder's familiarity with procedures and processing of documentary requirements applicable to UNDP when clearing with customs authority of the country of destination.

Section 6: Returnable Bidding Forms / Checklist

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

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

Technical Bid:

Have you duly completed all the Returnable Bidding Forms?	
▪ Form A: Bid Submission Form	<input type="checkbox"/>
▪ Form B: Bidder Information Form	<input type="checkbox"/>
▪ Form C: Joint Venture/Consortium/ Association Information Form	<input type="checkbox"/>
▪ Form D: Qualification Form	<input type="checkbox"/>
▪ Form E: Format of Technical Bid/Bill of Quantities	<input type="checkbox"/>
▪ Form G: Form of Bid Security	<input type="checkbox"/>
Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?	<input type="checkbox"/>

Price Schedule:

▪ Form F: Price Schedule Form	<input type="checkbox"/>
-------------------------------	--------------------------

Form A: Bid Submission Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

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

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

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

- a) is not under procurement prohibition by the United Nations, including but not limited to prohibitions derived from the Compendium of United Nations Security Council Sanctions Lists;
- b) have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization;
- c) have no conflict of interest in accordance with Instruction to Bidders Clause 4;
- d) do not employ, or anticipate employing, any person(s) who is, or has been a UN staff member within the last year, if said UN staff member has or had prior professional dealings with our firm in his/her capacity as UN staff member within the last three years of service with the UN (in accordance with UN 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 Bid are true and we accept that any misinterpretation or misrepresentation contained in this Bid may lead to our disqualification and/or sanctioning by the UNDP.

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

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

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

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

Name: _____

Title: _____

Date: _____

Signature: _____

[Stamp with official stamp of the Bidder]

Form B: Bidder Information Form

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

contact for requests for clarifications during Bid evaluation	Telephone numbers: [Complete] Email: [Complete]
Please attach the following documents:	<ul style="list-style-type: none"> ▪ Company Profile, which should <u>not</u> exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods and/or services being procured ▪ Certificate of Incorporation/ Business Registration ▪ Tax Registration/Payment Certificate issued by the Internal Revenue Authority evidencing that the Bidder is updated with its tax payment obligations, or Certificate of Tax exemption, if any such privilege is enjoyed by the Bidder ▪ Trade name registration papers, if applicable ▪ Quality Certificate (e.g., ISO, etc.) and/or other similar certificates, accreditations, awards and citations received by the Bidder, if any ▪ Environmental Compliance Certificates, Accreditations, Markings/Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-efficient equipment, reduced carbon emission, etc.), either in its business practices or in the goods it manufactures ▪ Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder ▪ Certification or authorization to act as Agent on behalf of the Manufacturer, or Power of Attorney. ▪ Export Licenses, if applicable ▪ Local Government permit to locate and operate in assignment location, if applicable ▪ Official Letter of Appointment as local representative, if Bidder is submitting a Bid on behalf of an entity located outside the country

Form C: Joint Venture/Consortium/Association Information Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

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

No	Name of Partner and contact information (address, telephone numbers, fax numbers, e-mail address)	Proposed proportion of responsibilities (in %) and type of goods and/or 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 ITB process and, in the event a Contract is awarded, during contract execution)	[Complete]
--	------------

We have attached a copy of the below referenced 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/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: Eligibility and Qualification Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

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

History of Non- Performing Contracts

<input type="checkbox"/> Non-performing contracts did not occur during the last 3 years			
<input type="checkbox"/> Contract(s) not performed in 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:	

Litigation History (including pending litigation)

<input type="checkbox"/> No litigation history for the last 3 years			
<input type="checkbox"/> Litigation History as indicated below			
Year of dispute	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:	

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 & Timeline (MM/YY)	Contract Value	Period of activity and status	Types of activities undertaken	Capacity (kWp) and Other Technical Information

Bidders shall attach their own Project Data Sheets with more details supporting the required relevant grid-connected solar PV capacity installation/experience (condition d of section C – Annex 1)

Please list any experience with battery storage (domestic/commercial/industrial)

Project name & Country of Assignment	Client & Reference Contact Details & Timeline (MM/YY)	Contract Value	Types of activities undertaken	Capacity (kWp) of Solar PV system	Capacity (kWh) of Battery Storage, Type of Battery, and Other Technical Info

☐ 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	LKR/USD
	Year	LKR/USD
	Year	LKR/USD
Latest Credit Rating (if any), indicate the source		

Financial information (in US\$/LKR)	Historic information for the last 3 years		
	Year 1	Year 2	Year 3
	<i>Information from Balance Sheet</i>		
Total Assets (TA)			
Total Liabilities (TL)			
Current Assets (CA)			

Current Liabilities (CL)			
	<i>Information from Income Statement</i>		
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 Bid

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

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

SECTION 1: Bidder's qualification, capacity and expertise

- 1.1 General organizational capability which is likely to affect implementation: management structure, financial stability and project financing capacity, project management controls, extent to which any work would be subcontracted (if so, provide details).
- 1.2 Relevance of specialized knowledge and experience on similar engagements done in the region/country.
- 1.3 Quality assurance procedures and risk mitigation measures.
- 1.4 Organization's commitment to sustainability.

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

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

- 2.1 A detailed description of how the Bidder will deliver the required goods and services, keeping in mind the appropriateness to local conditions and project environment. Details how the different service elements shall be organized, controlled and delivered.
- 2.2 Explain whether any work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.
- 2.3 The bid shall also include details of the Bidder's internal technical and quality assurance review mechanisms.
- 2.4 Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.

2.5 Demonstrate how you plan to integrate sustainability measures in the execution of the contract.

The Bidders should fill in separate forms for different battery capacities (Type 1, Type 2, and Type3 specified in Annex 1). No alternative offers allowed and only one combination for each type should be offered. The proposed system/component should be compatible with system description (**section 5 of Annex 1**) and the detailed technical specification given in **Annex 2**. The Bidders should submit their proposals for all three battery capacities.

A: General Technical Information

No	Description (For One Unit) Type 1(1.5) <input type="checkbox"/> 2 (2.5) <input type="checkbox"/> 3(3.75) <input type="checkbox"/> Tick as per different battery capacities (kWh)		Specifications/ Type	Make	Model/M odel No.	Country of Origin	Year of Manufacture	Quantity of components (per system)	Minimum warranty Requirements
1.	Solar Panel							Any combination	10 Years (product) (20 Year linear performance)
2.	Battery (Li-Ion)							Vary/Any combination	07 Years
3.	Hybrid Inverter							Please mention	07 Years
4.	Other I (Please specify)	<i>List all other main system component(s) and corresponding information</i>						Please mention	05 Years
5.	Other II (Please Specify)							Please mention	
6.	Other III (Please Specify)							Please mention	
7.	Other IV (Please Specify)							Please mention	

Please summarize here only the key technical information, and you may attach/separately submit detailed technical information.

Any other technical information:

Technical deviations:

Please mention any technical deviation (refer system description and technical specification)
Please provide the functional block diagram of proposed system

Functional block diagram

Please provide the functional block diagram/single line diagram of proposed system

B: Operational Modes of the proposed solar PV systems. The bidder should mention whether the proposed system/product(s) are in compliance with the system requirement described in **section 5 of Annex 2.**

Operational Mode	Description	Operational Requirement	Proposed system(s) are in compliance YES/NO	Reason if NO , and any technical deviations
Case 1	Day time operation – Domestic load is lower than solar PV generation	Priority is for load and then charging batteries. Any excess energy will be exported to the grid as normal net metering. Battery should not be used during the day time.		
Case 2	Day time operation at insufficient solar PV power generation/Overcast day. Domestic load requirement is higher than what solar PV system is generating.	Solar PV will supply the load. Failing that balance requirement will be imported from the grid. Battery should not be used during the day time.		
Case 3	Domestic load requirement is higher than solar PV system's rated power	Solar PV will supply the load. Failing that balance requirement of energy will be imported from the grid. Battery should not be used during the day time.		
Case 4	Night time operation – domestic load requirement is less than system rated power	Battery storage provides the required power (as long as battery has sufficient energy to be delivered). If battery does not have sufficient energy, load should be fed from the grid. Battery energy utilization should be limited to evening peak (06.00pm - 10.00 pm)		
Case 5	Night time operation – domestic load requirement is higher than system rated power	Both battery storage and grid shall provide required power. If battery does not have sufficient energy, load should be connected to the grid. Battery energy utilization should be limited to evening peak (06.00pm - 10.00 pm)		
Case 6	No grid power	No islanding operation. However, Islanding operation/facility should be available		
Case 7a	Battery charging from the grid	Should have this option with a suitable battery management system		
Case 7b	Battery feeding the grid	Should not allow at any time of operation.		

Note: if answer is "yes" that should be supported with the manufacturers catalog information

C: Compliance Check List

The bidder should complete the following compliance check list.

1. Technical Specifications	In Compliance (YES/NO)	Remarks/ Supporting Doc & reference
1.1. Solar PV Module		
a. Should be made of mono or poly crystalline silicon cells-MAJOR		
b. Photo electrical conversion efficiency of SPV module shall be not less than 17% for poly crystalline or 18.5% for mono crystalline panels - MAJOR		
c. Minimum PV panel wattage of 330Wp for poly or 360Wp for mono crystalline panels at STC and total PV panel capacity should be not less than 2kWp - MAJOR		
d. Should be suitable for operating under the ambient condition of 50°C temperature and relative humidity up to 95% - MAJOR		
e. Rated output should be guaranteed, that is not be less than 80% of rated at the end of 25 years- MAJOR		
f. Module fill factor shall be 70% or higher - MINOR		
g. Module junction box should be in compliance with physical ingress protection test(IP3X) and water ingress protection- MAJOR		
h. Shall be in compliance with IEC 61215 standard or equivalent- MAJOR		
i. Shall be in compliance with IEC 61730 or equivalent for safety - MAJOR		
j. Solar cell surface to be coated with anti-reflective coating - MINOR		
k. Module frame shall be made out of corrosion resistant material and shall be compatible with the mounting structures to prevent corrosion-MAJOR		
l. Should be in compliance with IEC 61701 and IEC 62716 standards - MAJOR		
1.2 Marking (Solar PV Module)		
The solar modules shall be provided with RF identification label. This should include following essential information.		
Information pertaining to design and manufacture of solar cells and modules;		
a. Name of the PV module manufacturer - MAJOR		
b. Type or model number- MAJOR		
c. Batch/serial number- MINOR		
d. Country of solar cells/module origin - MAJOR		
e. Year of solar module manufacture- MAJOR		
f. Module I-V curve- MAJOR		
g. Rated Power @STC- MAJOR		
1.3 Hybrid Inverter		
a. Inverter capacity should be not less than 2.0kWac - MAJOR		

b. Only hybrid inverters shall be considered - MAJOR		
c. Maximum Power Point Tracking (MPPT) control is required -MAJOR		
d. The grid interconnection protection system shall be as per the standards IEEE 1547 or IEC 61727 and as per the guideline provided by Ceylon Electricity Board / Lanka Electricity Company. The Bidders are required to study and understand the protection scheme required at the grid interface prior to quoting for the Inverter - MAJOR		
e. Inverter shall be protected against incorrect polarity of DC input, over current, over voltage, short-circuit current, overheating, surge protection for both AC and DC inputs - MAJOR		
f. The nominal input voltage must match the nominal voltage of the battery bank that will connect to the Inverter- MAJOR		
g. The nominal Inverter power output shall be delivered to a low voltage distribution network of single phase nominal voltage and frequency of 230V and 50 Hz - MAJOR		
h. The operating range of the Inverter shall be +/- 10% nominal voltage and -6% / +4% of power frequency. These settings should be adjustable to set the Inverter operating range - MAJOR		
i. The maximum inverter efficiency shall not be less than 97% (Euro. Efficiency) – MAJOR		
j. Battery to grid/load efficiency shall not be less than 95% -MAJOR		
k. The applicable IP class shall be IP 65 – MINOR		
l. Total voltage Harmonic Distortion should be less than 3% at rated condition - MAJOR		
m. Shall be compliance with EMS Standard - IEC61000-6-1/2/3 or equivalent - MAJOR		
n. Shall be incorporated with a suitable communication interface to log data, remote monitoring and data transferring to remote computer- MAJOR		
o. Provision to use programmable battery utilization- MAJOR		
p. Shall be capable of program the operating mechanism defined in the concept. eg. Switching between DC sources, islanding operation, DOD of battery etc - MAJOR		
1.4 Battery		
a. Battery type: Li-Iron batteries- MAJOR		
b. Round trip /charge and discharge efficiency not less than 92% – MAJOR		
c. Cycle life not less than 4000 @ 90 DOD and 10 year product life- MAJOR		
d. Shall be compliance with the safety requirements - IEC 62619/ UL1973 or equivalent – MAJOR		
e. Should have capacity (useable) as requested under the scope (section B) @ 80% DOD - MAJOR		

f. Adequate ventilation for the batteries during charging/discharging to avoid the possible accumulation of explosive gases, but prevent the ingress of water during normal use should be considered during the installation- MINOR		
g. Battery should be incorporated with the suitable battery charging and management system for battery protection from premature failure and ensuring extended battery life - MAJOR		
h. Should provide a suitable enclosure or casing/battery cabinet if original assembly does not come with a (made of steel) with minimum IP class of 20 – MAJOR		
i. Batteries shall be in compliance with IEC 61427-2 or equivalent standard- MINOR		
j. Should be suitable for operating ambient condition 45°C temperature and relative humidity up to 95% - MINOR		
1.5 Cables, Combiner Box & Protections		
a. All DC & AC cables ratings shall be rated for minimum 600 V		
b. All cables should be stranded single core copper and resistant to heat, moisture, UV, sunlight and aberration. (cables compliance to UL4703 is recommended)		
c. Cables to be taken through either conduits or cable trays and the same shall be firmly secured.		
d. All exposed conduits, cable trays, junction boxes and connectors shall be resistance to UV radiation, heat and moisture.		
e. All cables shall be sized in accordance with BS 7671 requirements for electrical installations.		
Combiner box, if applicable,		
k. The IP rating shall be IP 65.		
l. Shall be equipped with suitable arrangement to disconnect and isolate arrays if required.		
m. PV inverter AC and DC isolators at suitable rating should be used.		
n. Cables to be properly terminated at the combiner box, and shall be fitted with cable glands for both incoming and outgoing cables.		
o. Cables shall be provided with markings for identification.		
1.6 Earthing and Protection		
a. All non-current carrying metal objects such as solar PV panel frames, mounting structures, enclosures etc. shall be properly grounded and conductor size should not be less than 4mm ² .		
b. The earth wire conductor shall be made out of copper.		
c. Earth resistance shall be less than Five (05) Ohm.		
1.7 Monitoring and Data Logging System		

Proposed system should include a suitable communication interface for data logging and required communication method to transfer the data- MAJOR		
a. Should cover the following but not limited to (MAJOR);		
I. Inverter power output, current, and voltage (10 or 15min maximum, minimum, SD and average), battery voltage and current, SOC, indication on battery charging/full/discharge/fault (The time and data recoding frequency should be configurable for 1 min data logging)		
II. Total energy generation, and energy exported to the grid		
b. Recorded data shall be time stamped and should be provided in ASCII or Excel format (MAJOR)		
c. Above data shall be logged at every 10/15 minute interval (specify the minimum possible logging time) and dispatched daily to the centrally located computer sent via email or suitable communication method (MAJOR)		
d. Internal memory of the system shall be capable of storing at least 3 months data (MAJOR).		
e. Remote monitoring facility for 1 year period		
1.8 Structures and Civil Works		
Agree to complete the installation as per the section 1.8 of technical specification (annexure B) - MAJOR		
1.9 System installation		
Agree to complete the installation of Grid connected rooftop PV system as per the SLS 1525: 2016 standard (code of practice for grid connected photovoltaic power system) - MAJOR		

SECTION 3: Management Structure and Key Personnel

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

Format for CV of Proposed Key Personnel

Name of Personnel	[Insert]
Position for this assignment	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]

Education/ Qualifications	<i>[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]</i>
	[Insert]
Professional certifications	<i>[Provide details of professional certifications relevant to the scope of goods and/or services]</i>
	<ul style="list-style-type: none"> ▪ Name of institution: [Insert] ▪ Date of certification: [Insert]
Employment Record/ Experience	<i>[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.]</i>
	[Insert]
References	<i>[Provide names, addresses, phone and email contact information for two (2) references]</i>
	Reference 1: [Insert] Reference 2: [Insert]

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

Signature of Personnel

Date (Day/Month/Year)

FORM F: Price Schedule Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

The Bidder is required to prepare the Price Schedule following the below format. The Bidder should submit separate Price Schedule for different battery capacities (as requested in Section B of Annex 1). Each Price Schedule must include a detailed cost breakdown of all goods and related services to be provided. Separate figures must be provided for each functional grouping or category, if any.

Currency of the Bid: USD

Price Schedule (per one Solar PV System)

Battery Capacity:

Please submit separate financial proposals for different battery capacities.

Item No.	Item	Make and Country of Manufacture	Model and Model No.	Quantity	CIF Value (USD) – Total	Import Duties, VAT, NBT, Any Other Charges/Duties (USD)	Total (USD) /DDP
1	Solar PV modules						
2	Inverter (Hybrid)						
3	Batteries (Li –ion)						
4	All other accessories and components (cable, switches protection etc) please list and provide information below						
5	Remote monitoring devices (wi-fi router etc)						
6	Other (please specify)						
A	Sub Total						
B	Transport (Local)	Cost should include all taxes and other charges.					
C	Installation	Please provide a description. Cost should include all taxes and other charges.					
D	Test, Commissioning, Training	Please provide a description. Cost should include all taxes and other charges.					
E	Internet service charges/connection for 1 year for remote monitoring	Please provide a description of service proposed. Cost should include all taxes and other charges.					
F	Warranty	Please provide a description of service proposed (minimum requirements are provided in Table A of Section 2 Form E: Format of Technical Bid). Cost should include all taxes and other charges.					

G	After Sales Services	Summarize your proposed maintenance activities for first 2 years here. Cost should include all taxes and other charges.	
H	Any other services (add as required)	Provide a description of service proposed.	
TOTAL (A+B+C+D+E+F+G+H) <i>Total price is the price for import, supply, install and commissioning of grid-connected solar PV system with battery storage at the customer's place on Delivered Duty Paid (DDP) basis with all transport, installation test, commissioning, facility for remote monitoring (1 year), warranty and after sales services (including maintenance for 2 years) costs.</i>			

The bidder should submit separate financial proposals for different battery capacities. No alternative offers allowed and only one combination for each type should be offered.

Name of Bidder: _____

Authorised signature: _____

Name of authorised signatory: _____

Functional Title: _____

FORM G: Form of Bid Security

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

To: Resident Representative UNDP
202-204. Buddhaloka Mawatha , Colombo 7, Sri Lanka

WHEREAS [Name and address of Bidder] (hereinafter called "the Bidder") has submitted a Bid to UNDP dated [Click here to enter a date.](#) to execute goods and/or services [Insert Title of Goods and/or Services] (hereinafter called "the Bid"):

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

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

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

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

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

SIGNATURE AND SEAL OF THE GUARANTOR BANK

Signature: _____

Name: _____

Title: _____

Date: _____

Name of Bank _____

Address _____

[Stamp with official stamp of the Bank]

Scope of Work, Eligibility Criteria and Other General Information

A. Background

Domestic Solar PV system with battery storage has been identified as one of the competing and eligible technologies to be demonstrated under UNDP/GEF funded NAMA project. The Project has conducted a pilot trial programme which consists of 14 solar PV system installations, and early results indicates that this a technically feasible solution for peak demand management and islanding operation, and is seen as a solution for future energy context of the country. The Project is to extend the same pilot for another focus group of consumers, and calls for Invitation to Bid (ITB) from the qualified bidders for supply, installation and commissioning of Domestic Grid tied solar PV system with battery storage under the United Nations Development Programme in Sri Lanka. The bidders who are eligible as per the terms and conditions given in this ITB are invited to submit detailed technical specifications, financial proposals and other relevant details for the pilot programme .

B. Scope

The scope of this ITB includes supply, installation and commissioning of 20 domestic Grid tied solar PV systems with battery storage of the following capacities;

Solar PV System Capacity: 2kWp

Inverter Capacity: 2KWac

Battery Capacities as per the table below;

Type	Battery Capacity (kWh)	No of systems
Type 1	1.5 (1.2)	6
Type 2	2.5 (2.0)	8
Type 3	3.75 (3.0)	6
Total systems		20

Note: Battery capacity values within brackets are usable capacities at 80% DOD level

Detailed technical specifications are provided in **Annex 2**, and the total number of installations is twenty (20). These solar PV system installations will be in Kurunegala town area.

C. Selection Criteria

The bidders who fulfill the Eligibility and Qualification criteria specified below and conditions specified in section 2 of ITB document will qualify for the detail technical evaluation as per the technical specification guideline provided in Annex 2. Only the technically qualified proposals will be considered for financial evaluation towards award of contract on lowest evaluated bid basis (total cost of 20 systems in above three types). The Bidders should submit their proposals for all three battery capacities.

Eligibility & Qualification Criteria

The bidder should comply with all the following **mandatory requirements**.

- The bidder should be a duly incorporated / registered company (legal entity) either in the Registrar of Companies, Sri Lanka or in a Local Authority of Sri Lanka

Or

Bids may be submitted by any international company/firm with an accredited local representative who has a registered business in Sri Lanka and who takes the fullest responsibility for the whole bid. The local representative/authorized party shall submit evidence of status, obligations, power of attorney and any other documentary evidence that he/she is duly authorized and eligible to bid on behalf of the international company/firm.

- b) The bidder /authorized local representative should have a valid registration for import, supply, and installation of grid connected rooftop solar PV systems, issued by the Sri Lanka Sustainable Energy Authority (as per utility and regulatory compliance requirement)
- c) The bidder or the authorized local representative should also have a minimum of three (03) years prior experience in the supply/installation and maintenance of grid-connected solar PV systems in Sri Lanka (should provide evidence of registration of business, project reference list and few notable projects with contact information, no. of systems sold & present situation) and also technical and financial capability necessary to perform the contract.
- d) Should have installed over 250 kWp domestic solar PV system (net-metering/net-accounting) within the past 3 years (from 2015).
- e) Experience in domestic solar PV with battery storage will be an added advantage.
- f) The bidder or authorized local representative shall have a permanent operating premises with a trained and skilled technical staff.
- g) The bidder should provide proof of sufficient financial strength (minimum annual turnover of 75m LKR for the last three financial years) to perform the required task.
- h) Should be able to provide product(s) that comply with the system capacity and description in Annex 2 (Technical Specification).
- i) The bidder should agree to provide the following local service requirements, warranty and after sales services as per the section 4 of Annex 2 (Technical Specification);
- j) The bidder or authorized local representative should have the sufficient institutional capacity (including human resources and technical expertise) to supply, installation and commission of 20 domestic solar PV systems with battery storage within 12 weeks from the award of contract.

D. Technical Information and Necessary Documents

The bidder should submit the following document requirements.

1. Bidder Application providing the details of the bidder, technical information of the product they proposed, financial proposals and other relevant information requested (given format: **PART IV** of this document).
2. Business registration.
3. The bidder should also provide separate authorization letters for the proposed solar PV panels and invertors issued by the Sri Lanka Sustainable Energy Authority. Further, the bidder should provide an authorization letter from the original manufacture of the proposed products (solar PV panels, invertors and battery storage).
4. Product/type test reports from accredited laboratories for proposed products. Product/type test reports should be submitted for solar PV panel, Invertors and battery (storage).
5. Documentary evidence such as original manuals, catalogs, brochures etc.as a proof of product specifications under the compliance list.

E. How to Apply

Please refer Section 3 Bid Data Sheet

F. Payment Terms

Payment terms will be;

- 50% of the payment less any advance payment: After completion of the installation of 10 solar PV systems with battery storage are completed.
- 50% of the payment less any liquidated damages after completion of all 20 solar PV systems with battery storages installation, and systems are in operation as per the system description provided in section 5 of technical specification (Annex 2) and data logging & remote monitoring facilities are provided.

Note: Performance security will only be released after two months from the date of commissioning of 20 Solar PV systems and ensuring an average energy yield (for normal solar irradiation condition) of not less than 100 kWh/month/kWp installed and operation as per the system description provided in section 5 of technical specification (Annex 2). Energy yield will be monitored through inverter metering.

For local vendors, the payments will be made in the local currency (LKR) at prevailing UN operational exchange rate at the time of invoicing.

Technical Specification

Specifications for components and installation of Grid tied rooftop Solar PV systems with Battery storage

The bidder should note that specifications marked as MAJOR are considered as **mandatory requirements** for the technical evaluation.

1. Technical Specifications

1.1. Solar PV Module

The Solar Photo Voltaic (SPV) modules intend to use for the proposed Solar PV systems should be in compliance as follows;

- a. Should be made of mono or poly crystalline silicon cells-MAJOR
- b. Photo electrical conversion efficiency of SPV module shall be not less than 17% for poly crystalline or 18.5% for mono crystalline panels - MAJOR
- c. Minimum PV panel wattage of 330Wp for poly or 360Wp for mono crystalline panels at STC and total PV panel capacity should be not less than 2kWp
- d. Should be suitable for operating under the ambient condition of 50°C temperature and relative humidity up to 95% - MAJOR
- e. Rated output should be guaranteed, that is not be less than 80% of rated at the end of 25 years- MAJOR
- f. Module fill factor shall be 70% or higher - MINOR
- g. Module junction box should be in compliance with physical ingress protection test(IP3X) and water ingress protection- MAJOR
- h. Shall be in compliance with IEC 61215 standard or equivalent- MAJOR
- i. Shall be in compliance with IEC 61730 or equivalent for safety - MAJOR
- j. Solar cell surface to be coated with anti-reflective coating - MINOR
- k. Module frame shall be made out of corrosion resistant material and shall be compatible with the mounting structures to prevent corrosion-MAJOR
- l. Should be in compliance with IEC 61701 and IEC 62716 standards - MAJOR

1.2 Marking (Solar PV Module)

The solar modules shall be provided with RF identification label. This should include following essential information.

Information pertaining to design and manufacture of solar cells and modules;

- a. Name of the PV module manufacturer - MAJOR
- b. Type or model number- MAJOR
- c. Batch/serial number- MINOR
- d. Country of solar cells/module origin - MAJOR
- e. Year of solar module manufacture- MAJOR
- f. Module I-V curve- MAJOR
- g. Rated Power @STC- MAJOR

1.3 Hybrid Inverter

- a. Inverter capacity should be not less than 2.0kWac - MAJOR
- b. Only hybrid inverters shall be considered - MAJOR
- c. Maximum Power Point Tracking (MPPT) control is required -MAJOR

- d. The grid interconnection protection system shall be as per the standards IEEE 1547 or IEC 61727 and as per the guideline provided by Ceylon Electricity Board / Lanka Electricity Company. The Bidders are required to study and understand the protection scheme required at the grid interface prior to quoting for the Inverter - MAJOR
- e. Inverter shall be protected against incorrect polarity of DC input, over current, over voltage, short-circuit current, overheating, surge protection for both AC and DC inputs - MAJOR
- f. The nominal input voltage must match the nominal voltage of the battery bank that will connect to the Inverter- MAJOR
- g. The nominal Inverter power output shall be delivered to a low voltage distribution network of single phase nominal voltage and frequency of 230V and 50 Hz - MAJOR
- h. The operating range of the Inverter shall be +/- 10% nominal voltage and -6% / +4% of power frequency. These settings should be adjustable to set the Inverter operating range - MAJOR
- i. The maximum inverter efficiency shall not be less than 97% (Euro. Efficiency) – MAJOR
- j. Battery to grid/load efficiency shall not be less than 95% -MAJOR
- k. The applicable IP class shall be IP 65 – MINOR
- l. Total voltage Harmonic Distortion should be less than 3% at rated condition - MAJOR
- m. Shall be compliance with EMS Standard - IEC61000-6-1/2/3 or equivalent - MAJOR
- n. Shall be incorporated with a suitable communication interface to log data, remote monitoring and data transferring to remote computer- MAJOR
- o. Provision to use programmable battery utilization- MAJOR
- p. Shall be capable of program the operating mechanism defined in the concept. eg. Switching between DC sources, islanding operation, DOD of battery etc - MAJOR

1.4 Battery

- a. Battery type: Li-Iron batteries- MAJOR
- b. Round trip /charge and discharge efficiency not less than 92% – MAJOR
- c. Cycle life not less than 4000 @ 90 DOD and 10 year product life- MAJOR
- d. Shall be compliance with the safety requirements - IEC 62619/ UL1973 or equivalent – MAJOR
- e. Should have capacity (useable) as requested under the scope (section B of Annex 1) @ 80% DOD - MAJOR
- f. Adequate ventilation for the batteries during charging/discharging to avoid the possible accumulation of explosive gases, but prevent the ingress of water during normal use should be considered during the installation- MINOR
- g. Battery should be incorporated with the suitable battery charging and management system for battery protection from premature failure and ensuring extended battery life - MAJOR
- h. Should provide a suitable enclosure or casing/battery cabinet if original assembly does not come with a (made of steel) with minimum IP class of 20 – MAJOR
- i. Batteries shall be in compliance with IEC 61427-2 or equivalent standard- MINOR
- j. Should be suitable for operating ambient condition 45°C temperature and relative humidity up to 95% - MINOR

1.5 Cables, Combiner Box & Protections

- a. All DC & AC cables ratings shall be rated for minimum 600 V
- b. All cables should be stranded single core copper and resistant to heat, moisture, UV, sunlight and aberration. (cables compliance to UL4703 is recommended)
- c. Cables to be taken through either conduits or cable trays and the same shall be firmly secured.

- d. All exposed conduits, cable trays, junction boxes and connectors shall be resistance to UV radiation, heat and moisture.
- e. All cables shall be sized in accordance with BS 7671 requirements for electrical installations.

Combiner box, if applicable,

- k. The IP rating shall be IP 65.
- l. Shall be equipped with suitable arrangement to disconnect and isolate arrays if required.
- m. PV inverter AC and DC isolators at suitable rating should be used.
- n. Cables to be properly terminated at the combiner box, and shall be fitted with cable glands for both incoming and outgoing cables.
- o. Cables shall be provided with markings for identification.

1.6 Earthing and Protection

- a. All non-current carrying metal objects such as solar PV panel frames, mounting structures, enclosures etc. shall be properly grounded and conductor size should not be less than 4mm².
- b. The earth wire conductor shall be made out of copper.
- c. Earth resistance shall be less than Five (05) Ohm.

1.7 Monitoring and Data Logging System

Proposed system should include a suitable communication interface for data logging and required communication method to transfer the data- MAJOR

- a. Should cover the following but not limited to (MAJOR);
 - I. Inverter power output, current, and voltage (10 or 15min maximum, minimum, SD and average), battery voltage and current, Battery SOC, Solar PV generation, indication on battery charging/full/discharge/fault
(The time and data recoding frequency should be configurable for 1 min data logging.
 - II. Total energy generation, energy exported/imported to the grid, and domestic load
- b. Recorded data shall be time stamped and should be provided in ASCII or Excel format (MAJOR)
- c. Above data shall be logged at every 10/15 minute interval (specify the minimum possible logging time) and dispatched daily to the centrally located computer sent via email or suitable communication method (MAJOR)
- d. Internal memory of the system shall be capable of storing at least 3 months data (MAJOR).
- e. The bidder will be responsible for providing 1 year remote monitoring and data logging facilities for these 20 systems, and costs of internet services for 1 year and required devices should be included in the price schedule.

1.8 Structures and Civil Works

- a. Panel array to be oriented towards North-South direction. Any difficulty, PMU to be consulted before installation.
- b. The module alignment and tilt angle shall be calculated to provide maximum annual energy output wherever possible.
- c. There should be adequate clearance between module and roofing material (minimum 10cm) to prevent excessive heat being transferred to panels.
- d. Free space to be provided between panel rows for ease of maintenance which include replacement, inspection and cleaning of panels.
- e. Appearance of the roof, if visible at a distance, also to be considered for deciding mounting angle
- f. The mounting structures shall be designed to withstand wind speed up to 50 m/s.

- g. The solar PV panel mounting structure shall be firmly secured on to the roof structure without affecting the structural integrity. This shall be performed in consultation with a qualified structural engineer.
- h. Proper sealing materials to be employed for roof penetrations.
- i. Materials shall be UV resistant and shall be designed to withstand the temperatures to which they are exposed.
- j. Dissimilar metals, if used, shall be isolated from one another using non-conductive materials.
- k. All structural members shall be made out of either galvanized steel or corrosion resistant aluminum or stainless steel.

1.9 System installation

Installation of Grid connected rooftop PV system should be carried out as per the SLS 1525: 2016 standard (code of practice for grid connected photovoltaic power system) - MAJOR

2. General

Successful bidder is required to provide following documents when equipment are delivered.

- a. A complete list of system components with associated manufacturers literature, specifications and warranties.
- b. A complete copy of user manuals in English
- c. Recommended annual maintenance schedule with maintenance instructions
- d. A functional block diagram, an electrical single line diagram and physical layout diagram for the total system (for each)
- e. Product catalogs, test certificates, bidder records etc.

3. Test, certifications & performance

All the components offered should have type tested and certified as per the relevant standards by an accredited laboratory accepted the UNDP project office. Only the copies of relevant test reports need to be attached.

All technical details given in the offer should be supported with documentary evidences such as manufacturer's catalogs, leaflets, data sheets etc.

The bidder/selected party should ensure the performance of these 20 system with an average energy yield (for normal solar irradiation condition) of not less than 100 kWh/month/kWp installed capacity and operation as per the system description provided in section 5 of technical specification (Annex 2).

4. Other requirements

The bidder should also comply with the following service requirements, warranty and after sales services;

- I. All the equipment/components are new, unused, and of the most recent or current models, free from defects and that they incorporate all recent improvements in design and materials.
- II. The bidder or authorized local representative should provide all product upgrades/updates issued by product manufacturers.

- III. Should be able to provide replacement items either solar PV panels, inverters and related accessories (except batteries) within 3 working days after the notice of malfunction during the warranty period.
- IV. The bidder/ authorized local representative must be able to attend to site problems on site within three working days with fair notice from customer.
- V. An operation and troubleshooting training, and recommended maintenance schedule shall be handed over to the project team / in-house personnel at the installation/commissioning.
- VI. The bidder/ authorized local representative shall be able to offer a scheduled maintenance contract and, list of critical spare parts for trouble free operation of installed systems for minimum of five years.
- VII. The bidder/ authorized local representative should provide 2 years of maintenance of these systems and maintenance schedule should be proposed under the technical offer. Any maintenance cost should be included in the financial proposal.

5. System (Operation) Description

Proposed domestic grid tied solar PV system should perform as per the following system description: During the day time, power generated by the PV module shall feed the domestic load first and then charge the batteries. Any excess power after charging the batteries shall be exported to grid. If the generated power is not sufficient to meet the domestic load batteries should provide the balance requirement. When no power generation by PV in night or due to overcast, batteries should provide the electrical load requirement. At any time if battery capacity is not adequate to meet the load, grid should continue to provide power. The energy stored in the batteries should never be exported to the grid at any point of operation. The system should import energy from the grid if the load exceeds system rated capacity or does not have sufficient energy stored. However, batteries should not feed in to the grid when grid fails. The proposed system should be coupled with a suitable battery management system, and battery charging and discharging should be programmable as well as the battery should be able to be charged from the grid if required. Furthermore, the bidder should refer the following modes of operation, and mention whether the proposed system is in compliance with or not, and any technical deviation.

Condition/ Mode	Description	Operational Requirement
Case 1	Day time operation – Domestic load is lower than solar PV generation	Priority is for load and then charging batteries. Any excess energy will be exported to the grid as normal net metering. Battery should not be used during the day time.
Case 2	Day time operation at insufficient solar PV power generation/Overcast day. Domestic load requirement is higher than what solar PV system is generating.	Solar PV and battery will supply the load. Failing that balance will be imported from the grid. Battery should not be used during the day time.

Case 3	Domestic load requirement is higher than solar PV system's rated power	Solar PV will supply the load. Failing that balance will be imported from the grid. Battery should not be used during the day time.
Case 4	Night time operation – domestic load requirement is less than system rated power	Battery storage provides the required power (as long as battery has sufficient energy to be delivered). If battery does not have sufficient energy, load should be fed from the grid. Battery energy utilization should be limited to evening peak (06.00pm -10.00 pm)
Case 5	Night time operation – domestic load requirement is higher than system rated power	Both battery storage and grid shall provide required power. If battery does not have sufficient energy, load should be connected to the grid. Battery energy utilization should be limited to evening peak (06.00pm -10.00 pm)
Case 6	No grid power	No islanding operation is allowed. However, the hybrid inverter should be programmable/or has facilities for islanding operation.
Case 7a	Battery charging from the grid	Should have this option with a suitable battery management system
Case 7b	Battery feeding the grid	Should not allow at any time of operation.