

THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

MINISTRY OF IRRIGATION



Mahaweli Authority of Sri Lanka

BIDDING DOCUMENT

for

**SUPPLY, INSTALL AND COMMISSION OF ON-GRID
ROOFTOP SOLAR PV SYSTEMS FOR OFFICE
BUILDINGS AT ZONAL MASL OFFICES – STAGE I**

NATIONAL COMPETITIVE BIDDING

CONTRACT No:DDG/TS/CON/E&M/SOLAR/01

SEPTEMBER 2024

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Section I
Instruction to Bidders (ITB)

ITB shall be read in conjunction with the Section II, Bidding Data Sheet (BDS), which shall take precedence over ITB.

General

- 1 Scope of Bid
 - 1.1 The Purchaser indicated in the Bidding Data Sheet (BDS), issues these Bidding Documents for the supply of Goods and Related Services incidental thereto as specified in Section V, Schedule of Requirements. The name and identification number of this procurement are specified in the BDS. The name, identification, and number of lots (individual contracts), if any, are provided in the BDS.
 - 1.2 Throughout these Bidding Document
 - (a) the term “in writing” means communicated in written form by mail (other than electronic mail) or hand delivered with proof of receipt;
 - (b) if the context so requires, “singular” means “plural” and vice versa; and
 - (c) “day” means calendar day.
- 2 Source of Funds
 - 2.1 Payments under this contract will be financed by the source specified in the BDS.
- 3 Ethics, Fraud and Corruption
 - 3.1 The attention of the bidders is drawn to the following guidelines of the Procurement Guidelines published by National Procurement Agency:
 - (a) Parties associated with Procurement Actions, namely, suppliers/contractors and officials shall ensure that they maintain strict confidentiality throughout the process;
 - (b) Officials shall refrain from receiving any personal gain from any Procurement Action. No gifts or inducement shall be accepted. Suppliers/contractors are liable to be disqualified from the bidding process if found offering any gift or inducement which may have an effect of influencing a decision or impairing the objectivity of an official.
 - 3.2 The Purchaser requires the bidders, suppliers, contractors, and consultants to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy:
 - (a) “Corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;
 - (b) “Fraudulent practice” means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;

- (c) “Collusive practice” means a scheme or arrangement between two or more bidders, with or without the knowledge of the Purchaser to establish bid prices at artificial, noncompetitive levels; and
 - (d) “Coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract.
 - 3.3 If the Purchaser found any unethical practices as stipulated under ITB Clause 3.2, the Purchaser will reject a bid, if it is found that a Bidder directly or through an agent, engaged in Corrupt, fraudulent, collusive or coercive practices in competing for the Contract in question.
- 4 Eligible Bidders
 - 4.1 All bidders shall possess legal rights to supply the Goods under this contract.
 - 4.2 A Bidder shall not have a conflict of interest. All bidders found to have conflict of interest shall be disqualified. Bidders may be considered to have a conflict of interest with one or more parties in this bidding process, if they:
 - (a) are or have been associated in the past, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under these Bidding Documents; or
 - (b) submit more than one bid in this bidding process. However, this does not limit the participation of subcontractors in more than one bid.
 - 4.3 A Bidder that is under a declaration of ineligibility by the National Procurement Agency (NPA), at the date of submission of bids or at the date of contract award, shall be disqualified. The list of debarred firms is available at the website of NPA, www.npa.gov.lk.
 - 4.4 Foreign Bidder may submit a bid only if so, stated in the BDS.
- 5 Eligible Goods and Related Services
 - 5.1 All goods supplied under this contract shall be complied with applicable standards stipulated by the Sri Lanka Standards Institute (SLSI). In the absence of such standards, the Goods supplied shall be complied to other internationally accepted standards.

Contents of Bidding Documents

- 6 Sections of Bidding Documents
- 6.1 The Bidding Documents consist of 2 Volumes, which include all the sections indicated below, and should be read in conjunction with any addendum issued in accordance with ITB Clause 8.
- Volume 1
- Section I. Instructions to Bidders (ITB)
 - Section VI. Conditions of Contract (CC)
 - Section VIII. Contract Forms
- Volume 2
- Section II. Bidding Data Sheet (BDS)
 - Section III. Evaluation and Qualification Criteria
 - Section IV. Bidding Forms
 - Section V. Schedule of Requirements
 - Section VII. Contract Data
 - Invitation For Bid
- 6.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents. Failure to furnish all information or documentation required by the Bidding Documents may result in the rejection of the bid.
- 7 Clarification of Bidding Documents
- 7.1 A prospective Bidder requiring any clarification of the Bidding Documents including the restrictiveness of specifications shall contact the Purchaser in writing at the Purchaser's address specified in the BDS. The Purchaser will respond in writing to any request for clarification, provided that such request is received no later than ten (10) days prior to the deadline for submission of bids. The Purchaser shall forward copies of its response to all those who have purchased the Bidding Documents, including a description of the inquiry but without identifying its source. Should the Purchaser deem it necessary to amend the Bidding Documents as a result of a clarification, it shall do so following the procedure under ITB Clause 8.
- 7.2 The Bidder's designated representative is invited to attend a pre-bid meeting, if provided for in the BDS. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

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| 8 | Amendment of Bidding Documents | 8.1 | At any time prior to the deadline for submission of bids, the Purchaser may amend the Bidding Documents by issuing addendum. |
| | | 8.2 | Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have purchased the Bidding Documents. |
| | | 8.3 | To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Purchaser may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB Sub-Clause 23.2 |

Preparation of Bids

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| 9 | Cost of Bidding | 9.1 | The Bidder shall bear all costs associated with the reparation and submission of its bid, and the Purchaser shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. |
| 10 | Language of Bid | 10.1 | The Bid, as well as all correspondence and documents relating to the Bid (including supporting documents and printed literature) exchanged by the Bidder and the Purchaser, shall be written in English language |
| 11 | Documents Comprising the Bid | 11.1 | The Bid shall comprise the following: <ul style="list-style-type: none">(a) Bid Submission Form and the applicable Price Schedules, in accordance with ITB Clauses 12, 14, and 15;(b) Bid Security or Bid-Securing Declaration, in accordance with ITB Clause 20;(c) documentary evidence in accordance with ITB Clauses 18 and 29, that the Goods and Related Services conform to the Bidding Documents;(d) documentary evidence in accordance with ITB Clause 18 establishing the Bidder's qualifications to perform the contract if its bid is accepted; and(e) any other document required in the BDS. |
| 12 | Bid Submission Form and Price Schedules | 12.1 | The Bidder shall submit the Bid Submission Form using the form furnished in Section IV, Bidding Forms. This form must be completed without any alterations to its format, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. |
| 13 | Alternative Bids | 13.1 | Alternative bids shall not be considered. |
| 14 | Bid Prices and Discounts | 14.1 | The Bidder shall indicate on the Price Schedule the unit prices and total bid prices of the goods it proposes to supply under the Contract. |

- 14.2 Any discount offered against any single item in the price schedule shall be included in the unit price of the item. However, a Bidder wishes to offer discount as a lot the bidder may do so by indicating such amounts appropriately
- 14.3 If so, indicated in ITB Sub-Clause 1.1, bids are being invited for individual contracts (lots) or for any combination of contracts (packages). Unless otherwise indicated in the BDS, prices quoted shall correspond to 100 % of the items specified for each lot and to 100% of the quantities specified for each item of a lot. Bidders wishing to offer any price reduction (discount) for the award of more than one Contract shall specify the applicable price reduction separately.
- 14.4 (i) Prices indicated on the Price Schedule shall include all duties and sales and other taxes already paid or payable by the Supplier:
- (a) on components and raw material used in the manufacture or assembly of goods quoted; or
 - (b) on the previously imported goods of foreign origin
- (ii) However, VAT shall not be included in the price but shall be indicated separately;
- (iii) the price for inland transportation, insurance and other related services to deliver the goods to their final destination;
- (iv) the price of other incidental services
- 14.5 The Prices quoted by the Bidder shall be fixed during the Bidder's performance of the Contract and not subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected, pursuant to ITB Clause 31.
- 14.6 All lots, if any, and items must be listed and priced separately in the Price Schedules. If a Price Schedule shows items listed but not priced, their prices shall be assumed to be included in the prices of other items
- 15 Currencies of Bid
- 15.1 Unless otherwise stated in Bidding Data Sheet, the Bidder shall quote in Sri Lankan Rupees and payment shall be payable only in Sri Lanka Rupees
- 16 Documents Establishing the Eligibility of the Bidder
- 16.1 To establish their eligibility in accordance with ITB Clause 4, Bidders shall complete the Bid Submission Form, included in Section IV, Bidding Forms.

- 17 Documents
Establishing the
Conformity of
the Goods and
Related
Services
- 17.1 To establish the conformity of the Goods and Related Services to the Bidding Documents, the Bidder shall furnish as part of its Bid the documentary evidence that the Goods conform to the technical specifications and standards specified in Section V, Schedule of Requirements.
- 17.2 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description (given in Section V, Technical Specifications) of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to the technical specification, and if applicable, a statement of deviations and exceptions to the provisions of the Schedule of Requirements.
- 17.3 The Bidder shall also furnish a list giving full particulars, including quantities, available sources and current prices of Spare parts, special tools, etc., necessary for the proper and continuing functioning of the Goods during the period if **specified in the BDS** following commencement of the use of the goods by the Purchaser.
- 18 Documents
Establishing the
Qualifications of the
Bidder
- 18.1 The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Purchaser's satisfaction:
- (a) A Bidder that does not manufacture or produce the Goods it offers to supply shall submit the manufacturer's Authorization using the form included in Section IV, Bidding Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods;
- (b) that, if required in the BDS, in case of a Bidder not doing business within Sri Lanka, the Bidder is or will be (if awarded the contract) represented by an Agent in Sri Lanka equipped and able to carry out the Supplier's maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and
- (c) that the Bidder meets each of the qualification criterion specified in Section III, Evaluation and Qualification Criteria
- 19 Period of Validity
of Bids
- 19.1 Bids shall remain valid until the date specified in the BDS. A bid valid for a shorter date shall be rejected by the Purchaser as non-responsive.

- 19.2 In exceptional circumstances, prior to the expiration of the bid validity date, the Purchaser may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB Clause 20, it shall also be extended for a corresponding period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its bid.
- 20 Bid Security
- 20.1 The Bidder shall furnish as part of its bid, a Bid Security or a Bid-Securing Declaration, as specified in the BDS.
- 20.2 The Bid Security shall be in the amount specified in the BDS and denominated in Sri Lanka Rupees, and shall:
- (a) at the bidder's option, be in the form of either a bank draft, a letter of credit, or a bank guarantee from a banking institution;
 - (b) be an unconditional Guarantee from a reputed Bank registered under Central Bank of Sri Lanka.
 - (c) be substantially in accordance with the form included in Section IV, Bidding Forms;
 - (d) be payable promptly upon written demand by the Purchaser in case the conditions listed in ITB Clause 20.5 are invoked;
 - (e) be submitted in its original form; copies will not be accepted;
 - (f) remain valid for the period specified in the BDS.
- 20.3 Any bid not accompanied by a substantially responsive Bid Security or Bid Securing Declaration in accordance with ITB Sub-Clause 20.1 and 20.2, may be rejected by the Purchaser as non-responsive.
- 20.4 The Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the Performance Security pursuant to ITB Clause 43.
- 20.5 The Bid Security may be forfeited or the Bid Securing Declaration executed:
- (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Submission Form, except as provided in ITB Sub- Clause 19.2; or
 - (b) if a Bidder does not agree to correction of arithmetical errors in pursuant to ITB Sub-Clause 30.3
 - (c) if the successful Bidder fails to:

- (i) sign the Contract in accordance with ITB Clause 42;
 - (ii) furnish a Performance Security in accordance with ITB Clause 43.
- 21 Format and Signing of Bid
 - 21.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB Clause 11 and clearly mark it as “ORIGINAL.” In addition, the Bidder shall submit a copy of the bid and clearly mark it as “COPY.” In the event of any discrepancy between the original and the copy, the original shall prevail.
 - 21.2 The original and the Copy of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder.
 - 21.3 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

Submission and Opening of Bids

- 22 Submission, Sealing and Marking of Bids
 - 22.1 Bidders may always submit their bids by mail or by hand.
 - (a) Bidders submitting bids by mail or by hand, shall enclose the original and the copy of the Bid in separate sealed envelopes, duly marking the envelopes as “ORIGINAL” and “COPY.” These envelopes containing the original and the copy shall then be enclosed in one single envelope.
 - 22.2 The inner and outer envelopes shall:
 - (a) Bear the name and address of the Bidder;
 - (b) be addressed to the Purchaser in accordance with ITB Sub-Clause 23.1;
 - (c) bear the specific identification of this bidding process as indicated in the BDS; and
 - (d) bear a warning not to open before the time and date for bid opening, in accordance with ITB Sub-Clause 261.
- 23 Deadline for Submission of Bids
 - 23.1 Bids must be received by the Purchaser at the address and no later than the date and time specified in the BDS.
 - 23.2 The Purchaser may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with ITB Clause 8, in which

- case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.
- 24 Late Bids 24.1 The Purchaser shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB Clause 23. Any bid received by the Purchaser after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.
- 25 Withdrawal, and Modification of Bids 25.1 A Bidder may withdraw, or modify its Bid after it has been submitted by sending a written notice in accordance with ITB Clause 22, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB Sub-Clause 21.2, (except that no copies of the withdrawal notice are required). The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:
- (a) submitted in accordance with ITB Clauses 21 and 22 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” or “MODIFICATION;” and
 - (b) received by the Purchaser prior to the deadline prescribed for submission of bids, in accordance with ITB Clause 23
- 25.2 Bids requested to be withdrawn in accordance with ITB Sub-Clause 25.1 shall be returned to the Bidders only upon notification of contract award to the successful bidder in accordance with sub clause 41.1.
- 25.3 No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Submission Form or any extension thereof.
- 26 Bid Opening 26.1 The Purchaser shall conduct the bid opening in public at the address, date and time specified in the BDS.
- 26.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding bid may be opened at the discretion of the Purchaser. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out

at Bid opening. Only envelopes that are opened and read out at Bid opening shall be considered further.

- 26.3 All other envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the Bid Prices, including any discounts and alternative offers; the presence of a Bid Security or Bid- Securing Declaration, if required; and any other details as the Purchaser may consider appropriate. Only discounts and alternative offers read out at Bid opening shall be considered for evaluation. No Bid shall be rejected at Bid opening except for late bids, in accordance with ITB Sub- Clause 24.1.
- 26.4 The Purchaser shall prepare a record of the Bid opening that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, or modification; the Bid Price, per lot if applicable, including any discounts, and the presence or absence of a Bid Security or Bid-Securing Declaration. The bids that were opened shall be resealed in separate envelopes, promptly after the bid opening. The Bidders' representatives who are present shall be requested to sign the attendance sheet. A copy of the record shall be distributed to all Bidders who submitted bids in time.

Evaluation and Comparison of Bids

- 27 Confidentiality
- 27.1 Information relating to the examination, evaluation, comparison, and post-qualification (if applicable) of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until publication of the Contract Award.
- 27.2 Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison, and post-qualification of the bids or contract award decisions may result in the rejection of its Bid.
- 27.3 Notwithstanding ITB Sub-Clause 27.2, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, from the time of bid opening to the time of Contract Award, it should do so in writing.
- 28 Clarification of Bids
- 28.1 To assist in the examination, evaluation, comparison and post-qualification of the bids, the Purchaser may, at its discretion, request any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder in respect to its Bid and that is not in response to a request by the Purchaser shall not be considered for purpose of evaluation. The Purchaser's request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic

- errors discovered by the Purchaser in the Evaluation of the bids, in accordance with ITB Clause 30.
- 29 Responsiveness of Bids
- 29.1 The Purchaser’s determination of a bid’s responsiveness is to be based on the contents of the bid itself.
- 29.2 A substantially responsive Bid is one that conforms to all the terms, conditions, and specifications of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
- (a) affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
 - (b) limits in any substantial way, inconsistent with the Bidding Documents, the Purchaser’s rights or the Bidder’s obligations under the Contract; or
 - (c) if rectified would unfairly affect the competitive position of other bidders presenting substantially responsive bids.
- 29.3 If a bid is not substantially responsive to the Bidding Documents, it shall be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.
- 30 Nonconformities, Errors, and Omissions
- 30.1 Provided that a Bid is substantially responsive, the Purchaser may waive any non-conformities or omissions in the Bid that do not constitute a material deviation.
- 30.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, 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.
- 30.3 Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis
- (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 the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line-item total as quoted shall govern and the unit price shall be corrected;

- (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
 - (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
 - 30.4 If the Bidder that submitted the lowest evaluated Bid does not accept the correction of errors, its Bid shall be disqualified and its Bid Security shall be forfeited or its Bid- Securing Declaration shall be executed.
- 31 Preliminary Examination of Bids
 - 31.1 The Purchaser shall examine the bids to confirm that all documents and technical documentation requested in ITB Clause 11 have been provided, and to determine the completeness of each document submitted.
 - 31.2 The Purchaser shall confirm that the following documents and information have been provided in the Bid. If any of these documents or information is missing, the Bid shall be rejected.
 - (a) Bid Submission Form, in accordance with ITB Sub- Clause 12.1;
 - (b) Price Schedules, in accordance with ITB Sub- Clause 12;
 - (c) Bid Security or Bid Securing Declaration, in accordance with ITB Clause 20.
- 32 Examination of Terms and Conditions; Technical Evaluation
 - 32.1 The Purchaser shall examine the Bid to confirm that all terms and conditions specified in the CC and the Contract Data have been accepted by the Bidder without any material deviation or reservation.
 - 32.2 The Purchaser shall evaluate the technical aspects of the Bid submitted in accordance with ITB Clause 17, to confirm that all requirements specified in Section V, Schedule of Requirements of the Bidding Documents have been met without any material deviation or reservation.
 - 32.3 If, after the examination of the terms and conditions and the technical evaluation, the Purchaser determines that the Bid is not substantially responsive in accordance with ITB Clause 29, the Purchaser shall reject the Bid.

- 33 Conversion to Single Currency 33.1 If the bidders are allowed to quote in foreign currencies in accordance with sub clause 15.1, for evaluation and comparison purposes, the Purchaser shall convert all bid prices expressed in foreign currencies in to Sri Lankan Rupees using the selling rates prevailed 28 days prior to closing of bids as published by the Central Bank of Sri Lanka. If this date falls on a public holiday the earliest working day prior to the date shall be applicable
- 34 Domestic Preference 34.1 Domestic preference shall be a factor in bid evaluation only if stated in the BDS. If domestic preference shall be a bid- evaluation factor, the methodology for calculating the margin of preference and the criteria for its application shall be as specified in Section III, Evaluation and Qualification Criteria.
- 35 Evaluation of Bids 35.1 The Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive
- 35.2 To evaluate a Bid, the Purchaser shall only use all the factors, methodologies and criteria defined in this ITB Clause 35.
- 35.3 To evaluate a Bid, the Purchaser shall consider the following:
- (a) the Bid Price as quoted in accordance with clause 14;
 - (b) price adjustment for correction of arithmetic errors in accordance with ITB Sub-Clause 30.3;
 - (c) price adjustment due to discounts offered in accordance with ITB Sub-Clause 14.2; and 14.3
 - (d) adjustments due to the application of the evaluation criteria specified in the BDS from amongst those set out in Section III, Evaluation and Qualification Criteria;
 - (e) adjustments due to the application of a domestic preference, in accordance with ITB Clause 34 if applicable.
- 35.4 The Purchaser's evaluation of a bid may require the consideration of other factors, in addition to the factors stated in ITB Sub-Clause 35.3, if specified in BDS. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of bids.
- 35.5 If so, specified in the BDS, these Bidding Documents shall allow Bidders to quote for one or more lots, and shall allow the Purchaser to award one or multiple lots to more than one Bidder. The methodology of evaluation to determine the lowest-evaluated lot combinations, is

- specified in Section III, Evaluation and Qualification Criteria.
- 36 Comparison of Bids 36.1 The Purchaser shall compare all substantially responsive bids to determine the lowest-evaluated bid, in accordance with ITB Clause 35.
- 37 Post qualification of the Bidder 37.1 The Purchaser shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid is qualified to perform the Contract satisfactorily.
- 37.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Clause 18.
- 37.3 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Purchaser shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.
- 38 Purchaser's right to accept any Bid, and to reject any or all Bids 38.1 The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders.

Award of Contract

- 39 Award Criteria 39.1 The Purchaser shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.
- 40 Purchaser's Right to Vary Quantities at Time of Award 40.1 At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in Section V, Schedule of Requirements, provided this does not exceed twenty five percent (25%) or one unit whichever is higher and without any change in the unit prices or other terms and conditions of the bid and the Bidding Documents.
- 41 Notification of Award 41.1 Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its Bid has been accepted
- 41.2 Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.
- 41.3 Upon the successful Bidder's furnishing of the signed Contract Form and performance security pursuant to ITB Clause 43, the Purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security, pursuant to ITB Clause 20.4.

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| 42 | Signing of Contract | 42.1 | Within Seven (7) days after notification, the Purchaser shall complete the Agreement, and inform the successful Bidder to sign it. |
| | | 42.2 | Within Seven (7) days of receipt of such information, the successful Bidder shall sign the Agreement. |
| 43 | Performance Security | 43.1 | Within fourteen (14) days of the receipt of notification of award from the Purchaser, the successful Bidder, if required, shall furnish the Performance Security in accordance with the CC, using for that purpose the Performance Security Form included in Section VIII Contract forms. The Employer shall promptly notify the name of the winning Bidder to each unsuccessful Bidder and discharge the Bid Securities of the unsuccessful bidders pursuant to ITB Sub-Clause 20.4. |
| | | 43.2 | Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security or execution of the Bid- Securing Declaration. In that event the Purchaser may award the Contract to the next lowest evaluated Bidder, whose offer is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily. |

Section II

Bidding Data Sheet (BDS)

The following specific data for the goods to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

ITB Clause Reference	A. General
ITB 1.1	The Purchaser is: <i>Director General, Mahaweli Authority of Sri Lanka</i>
ITB 1.1	<p>The name and identification number of the Contract are: <i>Supply, install and commission of on-grid rooftop solar PV systems for office buildings at zonal MASL offices – stage I</i></p> <p>The number, identification and names of the lots comprising this procurement are: <i>DDG/TS/CON/E&M/SOLAR/01</i></p>
ITB 2.1	The source of funding is: <i>GOSL</i>
ITB 5	<p>Add the following to ITB 5:</p> <p>5.2 For purpose of this Clause, the term “goods” includes commodities, raw material, machinery and equipment; and “related services” includes services such as, installation, training and initial maintenance.</p> <p>5.3 The term “origin” means the country where the goods have been produced, manufactured or processed; or, through manufacture, processing, or assembly, another commercially recognized article results that differ substantially in its basic characteristics from its components</p>
	B. Contents of Bidding Documents
ITB 6	<p>Add the following to ITB 6:</p> <p>6.3 The Purchaser is not responsible for the completeness of the Bidding document and their addenda, if they were not obtained directly from the Purchaser.</p>
ITB 7.1	<p>For Clarification of bid purposes only, the Purchaser’s address is:</p> <p>Attention: <i>Director (Electrical & Mechanical)</i></p> <p>Address: <i>Electrical E Mechanical Division, 1st Floor, Mahaweli Authority of Sri Lanka, 500, T.B. Jayah Mawatha, Colombo 10</i></p> <p>Telephone: <i>0112 505 675</i></p> <p>Facsimile number: <i>0112 583 071</i></p> <p>Electronic mail address: <i>enmunit@gmail.com</i></p>

ITB 7.2	<p>A Pre-Bid meeting shall take place at the following date, time and place:</p> <p>Date: 23-09-2024</p> <p>Time: 10.00 hrs</p> <p>Place: Mini Conference hall, 9th Floor, Mahaweli Authority of Sri Lanka, No.500, T. B. Jayah Mawatha, Colombo 10.</p>
	<p>C. Preparation of Bids</p>
ITB 11.1 (e)	<p>The Bidder shall submit the following additional documents:</p> <p>(i) <i>Written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB Clause 21;</i></p> <p>(ii) <i>Documentary evidences in accordance with ITB Clause 16 establishing the Bidder’s eligibility to bid;</i></p> <p>(iii) <i>Brochures of solar panels, inverters and other basic components</i></p> <p>(iv) <i>Relevant Manufacture’s Authorizations</i></p> <p>(v) <i>List of clients within last five years (Attach document proofs such as the awarding letters/ purchase orders, completion certificates and performance certificates for successful operation for minimum 05 years.)</i></p> <p>(vi) <i>All the below mentioned documents as stated in the Schedule of Requirement – No 03.12</i></p> <ul style="list-style-type: none"> • <i>Annual energy generation prediction for 20 years developed by PVsyst application with a plant factor of 15%</i> • <i>Catalogues with technical literature of the offered units</i> • <i>Duly filled and signed technical schedule</i> • <i>Complete draft drawings for panel layout</i> • <i>Single line diagram</i> • <i>Certificate from internationally recognized testing laboratory or organization to conform the quality of the equipment</i> • <i>Efficiency curve of PV panels for its life time</i> • <i>All warranty certificates</i> <p>(vii) <i>Financial situation</i></p> <ul style="list-style-type: none"> • <i>Audited accounts for last 05 years</i> • <i>Proofs for liquid assets/ credit facilities</i>
ITB 14.3	<p>Add the following</p> <p>Bidder shall quote for all the items and requirements</p>
ITB 17	<p>Add the following to ITB 17:</p> <p>17.4 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Purchaser in the Schedule of Requirements, are intended to be</p>

	<p>descriptive only and not restrictive. The Bidder may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Purchaser’s satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Schedule of Requirements.</p> <p>17.5 To establish the eligibility of the Goods and Related Services in accordance with ITB Clause 5, Bidders shall complete the country-of-origin declarations in the Price Schedule Forms, included in Section IV, Bidding Forms.</p>
ITB 17.3	Period of time the Goods are expected to be functioning (for the purpose of spare parts): 20 years
ITB 18.1 (b)	After sales service is required for maintenance, services and repairs
ITB 19.1	The bid shall be validity until: 91 days from the deadline for Bid Submission. ie. 03-01-2025
ITB 20.1	<p>The Bid shall include a Bid Security (issued by a bank) in the format given in Section IV Bidding Forms.</p> <p>The Bid Security of a Joint Venture (JV) must be in the name of the JV that submits the bid. If the JV has not been legally constituted at the time of bidding, the Bid Security shall be in the names of all future partners as named in the letter of intent mentioned in Section IV “Bidding Forms,” Bidder Information Form Item 7.</p>
ITB 20.2	<p>The amount of the Bid Security shall be: LKR 670,000.00</p> <p>Bid Security shall be valid for 119 days from the deadline for Bid Submission ie. 31-01-2025</p>
	D. Submission and Opening of Bids
ITB 22.2 (c)	<p>The inner and outer envelopes shall bear the following identification marks: Supply, install and commission of on-grid rooftop solar PV systems for office buildings at zonal MASL offices – stage I DDG/TS/CON/E&M/SOLAR/01</p>
ITB 23.1	<p>For bid submission purposes, the Purchaser’s address is: Attention: Director General, 9th Floor, Mahaweli Authority of Sri Lanka, No.500, T.B. Jayah Mawatha, Colombo 10.</p> <p>Telephone: 0112687491 – 5 Facsimile: 0112687391 / 0112687240 E mail: dgmasl@sltnet.lk / dg@mahaweli.gov.lk</p>

	<p>The deadline for the submission of bids is: Date:04-10-2024 Time: 11.00 hrs</p>
ITB 26.1	<p>The bid opening shall take place at: Director General’s Office, 9th Floor, Mahaweli Authority of Sri Lanka, No.500, T.B. Jayah Mawatha, Colombo 10.</p> <p>Date: 04-10-2024 Time: 11.00hrs</p>
	<p>E. Evaluation and Comparison of Bids</p>
ITB 35.3(d)	<p>The adjustments shall be determined using the following criteria, from amongst those set out in Section III, Evaluation and Qualification Criteria:</p> <p>(a) Deviation in Delivery schedule: No</p> <p>(b) Deviation in payment schedule: No</p> <p>(c) The cost of major replacement components, mandatory spare parts, and service: No</p> <p>(d) Other specific criteria: The availability of spare parts and after sales services in the Purchaser’s Country for the equipment offered in the bid: Yes, Periodical services and repair services shall be carried out at client’s site.</p>
ITB 35.4	<p>The Bidder shall submit the following additional documents:</p> <p>(a) Bidder shall submit the valid registration from Sri Lanka Sustainable Energy Authority (SLSEA) for the Solar PV service provider on or before the date of bid closing/opening</p>
ITB 35.5	<p>Bidders shall be quoted for all the items.</p>

Section III

Evaluation and Qualification Criteria

This Section complements the Instructions to Bidders. It contains the criteria that the Purchaser use to evaluate a bid and determine whether a Bidder has the required qualifications. No other criteria shall be used.

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1. Evaluation Criteria (ITB 35.3 (d))

The Purchaser's evaluation of a bid may take into account, in addition to the Bid Price quoted in accordance with ITB Clause 14, one or more of the following factors as specified in ITB Sub-Clause 35.3(d) and in BDS referring to ITB 35.3(d), using the following criteria and methodologies.

- (a) Deviation in delivery schedule

The Goods specified in the List of Goods are required to be delivered within the acceptable time range (after the earliest and before the latest delivery date, both dates inclusive) specified in Section VI, Delivery Schedule.

- (b) Deviation in payment schedule.

Not Applicable

- (c) The cost of major replacement components, mandatory spare parts, and service:

Not Applicable

- (d) The availability of spare parts and after sales services in the Purchaser's Country for the equipment offered in the bid:

Periodical services and repair services shall be carried out at client's site.

2. Evaluation Criteria (ITB 35.4)

- (a) *Prior to the detail evaluation of bidders, TEC will be determined whether each Bidder has fulfilled the followings. Bids will be rejected if they do not fulfill the followings.*

- i. Meets the eligibility criteria*
- ii. Whether required documents are submitted properly and duly signed*
- iii. Bid Security*
- iv. Bidder shall have the certificate of business registration issued by a government authority for companies. Local authority issued business registration shall not be considered*
- v. Bidder shall have obtained the valid registration from Sri Lanka Sustainable Energy Authority (SLSEA) for the Solar Service Provider on or before the date of bid closing/opening*
- vi. Manufacturer's Authorization for solar modules and inverter*
- vii. Delivery Schedule*
- viii. Installation and commissioning period*

- (b) *After the preliminary examination of above, TEC will attend to a detail examination (technically and financially) considering the followings.*

- i. Conformity with specifications and standards*
- ii. Per unit cost*
- iii. Availability of the spare parts*
- iv. Technical verification certificates of panel, inverter and SPDs of the system*

3. Multiple Contracts (ITB 35.5)

Not Applicable

4. Post qualification Requirements (ITB 37.2)

After determining the lowest-evaluated bid in accordance with ITB Sub-Clause 36.1, the Purchaser shall carry out the post qualification of the Bidder in accordance with ITB Clause 37, using only the requirements specified. Requirements not included in the text below shall not be used in the evaluation of the Bidder's qualifications.

- (i) Financial Capability
 - i. Availability of liquidity asset or credit facility shall be not less than 40 Mn LKR*
 - ii. Average Annual turnover during last five years shall be at least 60 Mn. LKR*

The Bidder shall furnish documentary evidence that it meets the above requirement(s):

- (ii) Experience and Technical Capacity

The Bidder shall furnish documentary evidence to demonstrate that it meets the following experience requirement(s):

- i. Technical Staff and facilities availability of the bidder.*
 - ii. Bidders shall demonstrate the availability of repair facilities to handle any type of repairs and services within warranty period.*
 - iii. Bidder shall have more than 05 years of experience in installation testing and commissioning of roof top solar systems in Sri Lanka*
 - iv. The bidder shall have installed and commissioned at least 05 Nos. of Rooftop solar power projects in Sri Lanka with the capacity not less than 20 kW.*
 - v. The bidder shall have supplied and provided after sales service at least to the extent of quantities as indicated above for the last 05 years, which must be in satisfactory operation on the date.*
- (iii) The Bidder shall furnish documentary evidence to demonstrate that the Goods it offers meet the following usage requirement:
 - i. The units (Inverter/s, Solar PV modules, other equipment...) offered shall be current standard models*

Section IV

Bidding Forms

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Bid Submission Form

[The Bidder shall fill in this Form in accordance with the instructions indicated No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date:

Invitation for Bid No.: **DDG/TS/CON/E&M/SOLAR/01**

To: ***The Director General,
Mahaweli Authority of Sri Lanka.***

We, the undersigned, declare that:

1. We have examined and have no reservations to the Bidding Documents, including Addenda No: *[insert the number and issuing date of each Addenda];*
2. We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods and Related Services ***Supply, install and commission of on-grid rooftop solar PV systems for office buildings at zonal MASL offices – stage I***
3. The total price of our Bid without VAT, including any discounts offered is:
.....
..... *[insert the total bid price in words];*
4. The total price of our Bid including VAT, and any discounts offered is:
.....
..... *[insert the total bid price in words];*

No	Description	Quantity	Amount in figures (before VAT) (Rs.)	Amount in figures (after VAT) (Rs.)
<i>Supply, install and commission of on-grid rooftop solar PV system for</i>				
01	<i>Ruhunuketha circuit bungalow, System B, Welikanda – 40 kW</i>	<i>01</i>		
02	<i>Main building, RPM office, System G, Bakamoona – 40 kW</i>	<i>01</i>		
03	<i>Main building, EIC office, Mapakada – 20 kW</i>	<i>01</i>		
04	<i>Main building, EIC office, Maduruoya – 20 kW</i>	<i>01</i>		
05	<i>Main building, RPM office, Rambakenoya – 40 kW</i>	<i>01</i>		

06	<i>Circuit bungalow, System C, Dehiattakandiya – 20 kW</i>	<i>01</i>		
07	<i>Main building, RPM office, System D, Medirigiriya – 50 kW</i>	<i>01</i>		
<i>Total</i>				

5. Our bid shall be valid for the period of time specified in ITB Sub-Clause 19.1, from the date fixed for the bid submission deadline in accordance with ITB Sub-Clause 23.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
6. If our bid is accepted, we commit to obtain a performance security in accordance with ITB Clause 43 and CC Clause 17 for the due performance of the Contract;
7. We have no conflict of interest in accordance with ITB Sub-Clause 4.2;
8. Our firm, its affiliates or subsidiaries including any subcontractors or suppliers for any part of the contract has not been declared blacklisted by the National Procurement Agency;
 - (a) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
 - (b) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Signed:

.....
[insert signature of person whose name and capacity are shown]

In the capacity of

.....
[insert legal capacity of person signing the Bid Submission Form]

Name:

.....
[insert complete name of person signing the Bid Submission Form]

Duly authorized to sign the bid for and on behalf of: *[insert complete name of Bidder]*

Dated on _____ day of _____, _____ *[insert date of signing]*

Joint Venture Partner Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below].

Date: *[insert date (as day, month and year) of Bid Submission]*

NCB No.: **DDG/TS/CON/E&M/SOLAR/01**

Page _____ of _____ pages

1. Bidder's Legal Name:..... <i>[Insert Bidder's legal name]</i>
2. JV's Party legal name: <i>[Insert JV's Party legal name]</i>
3. JV's Party Country of Registration: <i>[Insert JV's Party country of registration]</i>
4. JV's Party Year of Registration: <i>[Insert JV's Part year of registration]</i>
5. JV's Party Legal Address in Country of Registration: <i>[Insert JV's Party legal address in country of registration]</i>
6. JV's Party Authorized Representative Information Name: <i>[Insert name of JV's Party authorized representative]</i> Address: <i>[Insert address of JV's Party authorized representative]</i> Telephone/Fax numbers: <i>[Insert telephone/fax numbers of JV's Party authorized representative]</i> Email Address: <i>[Insert email address of JV's Party authorized representative]</i>

7. Attached are copies of original documents of: *[Check the box(es) of the attached original documents]*

- Articles of Incorporation or Registration of firm named in 2, above, in accordance with ITB Sub-Clauses 4.1 and 4.2.

9. Names and addresses of the Independent Inspecting Authorities in country of origin (for approval and selection by Purchaser)

- 1.
- 2.
- 3.

10. Name and address of Air Carrier proposed to be used by supplier:

Price Schedule

[The Bidder shall fill in these Price Schedule in accordance with the instructions indicated. The list of line items in column 1 of the Price Schedules shall coincide with the List of Goods and Related Services specified by the Purchaser in the Schedule of Requirements.]

PRICE SCHEDULE

Note:

1. Number of Solar PV modules in each section shall be decided by the bidder according to their design, while maintaining the DC/AC ratio not less than 1.2
2. Comprehensive general liability for the solar system including (but not limited) covers for any damage due to fire and/or lightning, storm and tempest including cyclone, flood, earthquake and its consequences and accidental damage shall be provided through a reputed Insurance Company for first three years free of charge. The policy shall be provided in favor of Mahaweli Authority of Sri Lanka.

Section 1 – Ruhunuketha circuit bungalow – 40 kW

1	2	3	4	5	6	7	8	9	10	
				Goods and related Services offered (in Sri Lankan Rupees)						
Line Item No.	Description of Goods or related services	Qty and unit	Country of Origin of the Goods	Unit price (inclusive of duties/taxes, etc) Ex. VAT	Other related services to deliver the goods to the final destination if not included under column 5	Total Price Excluding VAT (Col. 3×5+6)	Discounted total price (if any) Ex. VAT	VAT	Total Price Including VAT (Col. 7+9 or 8+9)	
1	Solar PV Module (Specify the proposed quantity)									
2	Inverter with MPPT - 20 kW	02 Nos								
3	Array mounting structure	01 Item								

Section IV – Bidding Forms

4	Earthing system	01 Item							
5	Lightning Surge Protection	01 Item							
6	AC Surge Protection	01 Item							
7	DC Surge Protection	01 Item							
8	AC/DC Isolators	01 Item							
9	Cables, Connection Boxes and required system component	01 Item							
10	Design	01 Item							
11	Installation including CEB/LECO charges	01 Item							
12	Monitoring	01 Item							
Sub Total 1									

Section IV – Bidding Forms

Section 2 – RPM office, System G – 40 kW

1	2	3	4	5	6	7	8	9	10	
				Goods and related Services offered (in Sri Lankan Rupees)						
Line Item No.	Description of Goods or related services	Qty and unit	Country of Origin of the Goods	it price (inclusive of duties/taxes, etc) Ex. VAT	Other related services to deliver the goods to the final destination if not included under column 5	Total Price Excluding VAT (Col. 3×5+6)	Discounted total price (if any) Ex. VAT	VAT	Total Price Including VAT (Col. 7+9 or 8+9)	
1	Solar PV Module (Specify the proposed quantity)									
2	Inverter with MPPT – 20 kW	02 Nos								
3	Array mounting structure	01 Item								
4	Earthing system	01 Item								
5	Lightning Surge Protection	01 Item								
6	AC Surge Protection	01 Item								

Section IV – Bidding Forms

7	DC Surge Protection	01 Item							
8	AC/DC Isolators	01 Item							
9	Cables, Connection Boxes and required system component	01 Item							
10	Design	01 Item							
11	Installation including CEB/LECO charges	01 Item							
12	Monitoring	01 Item							
Sub Total 2									

Section IV – Bidding Forms

Section 3 – EIC office Mapakada – 20 kW

1	2	3	4	5	6	7	8	9	10	
				Goods and related Services offered (in Sri Lankan Rupees)						
Line Item No.	Description of Goods or related services	Qty and unit	Country of Origin of the Goods	Unit price (inclusive of duties/taxes, etc) Ex. VAT	Other related services to deliver the goods to the final destination if not included under column 5	Total Price Excluding VAT (Col. 3×5+6)	Discounted total price (if any) Ex. VAT	VAT	Total Price Including VAT (Col. 7+9 or 8+9)	
1	Solar PV Module (Specify the proposed quantity)									
2	Inverter with MPPT – 20 kW	01 No								
3	Array mounting structure	01 Item								
4	Earthing system	01 Item								
5	Lightning Surge Protection	01 Item								
6	AC Surge Protection	01 Item								

Section IV – Bidding Forms

7	DC Surge Protection	01 Item							
8	AC/DC Isolators	01 Item							
9	Cables, Connection Boxes and required system component	01 Item							
10	Design	01 Item							
11	Installation including CEB/LECO charges	01 Item							
12	Monitoring	01 Item							
Sub Total 3									

Section IV – Bidding Forms

Section 4 – EIC office Maduruoya – 20 kW

1	2	3	4	5	6	7	8	9	10	
				Goods and related Services offered (in Sri Lankan Rupees)						
Line Item No.	Description of Goods or related services	Qty and unit	Country of Origin of the Goods	Unit price (inclusive of duties/taxes, etc) Ex. VAT	Other related services to deliver the goods to the final destination if not included under column 5	Total Price Excluding VAT (Col. 3×5+6)	Discounted total price (if any) Ex. VAT	VAT	Total Price Including VAT (Col. 7+9 or 8+9)	
1	Solar PV Module (Specify the proposed quantity)									
2	Inverter with MPPT – 20 kW	01 No								
3	Array mounting structure	01 Item								
4	Earthing system	01 Item								
5	Lightning Surge Protection	01 Item								
6	AC Surge Protection	01 Item								

Section IV – Bidding Forms

7	DC Surge Protection	01 Item							
8	AC/DC Isolators	01 Item							
9	Cables, Connection Boxes and required system component	01 Item							
10	Design	01 Item							
11	Installation including CEB/LECO charges	01 Item							
12	Monitoring	01 Item							
Sub Total 4									

Section IV – Bidding Forms

Section 5 – RPM office, Rambakenoya – 40 kW

1	2	3	4	5	6	7	8	9	10	
				Goods and related Services offered (in Sri Lankan Rupees)						
Line Item No.	Description of Goods or related services	Qty and unit	Country of Origin of the Goods	Unit price (inclusive of duties/taxes, etc) Ex. VAT	Other related services to deliver the goods to the final destination if not included under column 5	Total Price Excluding VAT (Col. 3×5+6)	Discounted total price (if any) Ex. VAT	VAT	Total Price Including VAT (Col. 7+9 or 8+9)	
1	Solar PV Module (Specify the proposed quantity)									
2	Inverter with MPPT – 20 kW	02 Nos								
3	Array mounting structure	01 Item								
4	Earthing system	01 Item								
5	Lightning Surge Protection	01 Item								
6	AC Surge Protection	01 Item								

Section IV – Bidding Forms

7	DC Surge Protection	01 Item							
8	AC/DC Isolators	01 Item							
9	Cables, Connection Boxes and required system component	01 Item							
10	Design	01 Item							
11	Installation including CEB/LECO charges	01 Item							
12	Monitoring	01 Item							
Sub Total 5									

Section IV – Bidding Forms

Section 6 – Circuit bungalow, Dehiattakandiya – 20 kW

1	2	3	4	5	6	7	8	9	10	
				Goods and related Services offered (in Sri Lankan Rupees)						
Line Item No.	Description of Goods or related services	Qty and unit	Country of Origin of the Goods	Unit price (inclusive of duties/taxes, etc) Ex. VAT	Other related services to deliver the goods to the final destination if not included under column 5	Total Price Excluding VAT (Col. 3×5+6)	Discounted total price (if any) Ex. VAT	VAT	Total Price Including VAT (Col. 7+9 or 8+9)	
1	Solar PV Module (Specify the proposed quantity)									
2	Inverter with MPPT – 20 kW	01 No								
3	Array mounting structure	01 Item								
4	Earthing system	01 Item								
5	Lightning Surge Protection	01 Item								
6	AC Surge Protection	01 Item								

Section IV – Bidding Forms

7	DC Surge Protection	01 Item							
8	AC/DC Isolators	01 Item							
9	Cables, Connection Boxes and required system component	01 Item							
10	Design	01 Item							
11	Installation including CEB/LECO charges	01 Item							
12	Monitoring	01 Item							
Sub Total 6									

Section IV – Bidding Forms

Section 7 – RPM office, Medirigiriya – 50 kW

1	2	3	4	5	6	7	8	9	10	
				Goods and related Services offered (in Sri Lankan Rupees)						
Line Item No.	Description of Goods or related services	Qty and unit	Country of Origin of the Goods	Unit price (inclusive of duties/taxes, etc) Ex. VAT	Other related services to deliver the goods to the final destination if not included under column 5	Total Price Excluding VAT (Col. 3×5+6)	Discounted total price (if any) Ex. VAT	VAT	Total Price Including VAT (Col. 7+9 or 8+9)	
1	Solar PV Module (Specify the proposed quantity)									
2	Inverter with MPPT – 25 kW	02 Nos								
3	Array mounting structure	01 Item								
4	Earthing system	01 Item								
5	Lightning Surge Protection	01 Item								
6	AC Surge Protection	01 Item								

Section IV – Bidding Forms

7	DC Surge Protection	01 Item							
8	AC/DC Isolators	01 Item							
9	Cables, Connection Boxes and required system component	01 Item							
10	Design	01 Item							
11	Installation including CEB/LECO charges	01 Item							
12	Monitoring	01 Item							
Sub Total 7									

Section IV – Bidding Forms

Summary				
Goods and related Services offered (in Sri Lankan Rupees)				
	Total Price Excluding VAT	Discounted total price (if any) Ex. VAT	VAT	Total Price Including VAT
Ruhunuketha circuit bungalow, System B, Welikanda – 40 kW - Sub Total 1				
Main building, RPM office, System G, Bakamoona – 40 kW – Sub Total 2				
Main building, EIC office, Mapakada – 20 kW – Sub Total 3				
Main building, EIC office, Maduruoya – 20 kW – Sub Total 4				
Main building, RPM office, Rambakenoya – 40 kW – Sub Total 5				
Circuit bungalow, System C, Dehiathtakandiya – 20 kW – Sub Total 6				
Main building, RPM office, System D, Medirigiriya – 50 kW – Sub Total 7				
Grand Total				

Name of Bidder

[Insert complete name of Bidder]

Signature of Bidder

[Signature of person signing the Bid]

Date

[Insert date]

Bid Security (Bank Guarantee)

[This Bank Guarantee form shall be filled in accordance with the instructions indicated in brackets]

[Insert issuing agency's name, and address of issuing branch or office]

Beneficiary: ***Director General,
Mahaweli Authority of Sri Lanka
No 500, T.B. Jayah Mawatha,
Colombo 10.***

Date: ----- *[insert (by issuing agency) date]*

BID Guarantee No.: ----- *[insert (by issuing agency) number]*

We have been informed that _____ *[Name of the Bidder]*
(hereinafter called "the Bidder") has submitted to you its bid dated (hereinafter called "the Bid")
for the execution of ***Supply, install and commission of on-grid rooftop solar PV systems for
office buildings at zonal MASL offices – stage I*** under Bid No:
DDG/TS/CON/E&M/SOLAR/01

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we _____ *[Name of Bank]*
hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of
_____ *[Amount in figures]* _____

_____ *[Amount in words]* upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

- (a) Has withdrawn its Bid during the period of bid validity specified by the Bidder in the Form of Bid; or
- (b) having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity, (i) fails or refuses to execute the Contract Form; or (ii) fails or refuses to furnish the performance security, if required, in accordance with the Instructions to Bidders.

This guarantee will expire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the contract signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful bidder; or (ii) twenty-eight days after the expiration of the Bidder's Bid.

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

(This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.)

[Signature(s)]

Bidder Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

Date: _____

[Insert date (as day, month and year) of Bid Submission]

No.: **DDG/TS/CON/E&M/SOLAR/01**

Page _____ of _____ pages

1. Bidder's Legal Name: <i>[Insert Bidder's legal name]</i>
2. In case of JV, legal name of each party: <i>[Insert legal name of each party in JV]</i>
3. Bidder's actual or intended Country of Registration: <i>[Insert actual or intended Country of Registration]</i>
4. Bidder's Year of Registration: <i>[Insert Bidder's year of registration]</i>
5. Bidder's Legal Address in Country of Registration: <i>[Insert Bidder's legal address in country of registration]</i>
6. Bidder's Authorized Representative Information Name: <i>[Insert Authorized Representative's name]</i> Address: <i>[Insert Authorized Representative's Address]</i> Telephone/Fax numbers: <i>[Insert Authorized Representative's telephone/fax numbers]</i> Email Address: <i>[Insert Authorized Representative's email address]</i>

7. Attached are copies of original documents of: *[Check the box(es) of the attached original documents]*

- Articles of Incorporation or Registration of firm named in 1, above, in accordance with ITB Sub-Clauses 4.1 and 4.2.
- In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB Sub-Clause 4.1.
- In case of government owned entity from the Purchaser’s country, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB Sub-Clause 4.5.

8. The Bidder shall affirm the following:

I hereby swear that no individual or partner or stockholder or officer or director associated with this Bid is in any way associated or interested in any other Bid being submitted for this contract to the Purchaser.

.....

(Signature of person authorized to sign)

.....

(Name and title of person authorized to sign)

9. List below the supplementary supporting documentary evidence attached.

Manufacturer's Authorization

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its bid, if so indicated in the BDS.]

Date: -----

[Insert date (as day, month and year) of Bid Submission]

No.: **DDG/TS/CON/E&M/SOLAR/01**

To: **Director General,**

Mahaweli Authority of Sri Lanka

WHEREAS

We ----- *[insert complete name of Manufacturer]*, who are official manufacturers of -----
-----*[insert type of goods manufactured]*, having factories at -----
-----*[insert full address of Manufacturer's factories]*, do hereby authorize -----
[insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us -----
----- *[insert name and or brief description of the Goods]*, and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 27 of the Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: -----
[Insert signature(s) of authorized representative(s) of the Manufacturer]

Name: -----
[Insert complete name(s) of authorized representative(s) of the Manufacturer]

Title:-----
[insert title]

Duly authorized to sign this Authorization on behalf of:-----

[insert complete name of Bidder]

Dated on _____ day of _____, _____ *[insert date of signing]*

Section V

Schedule of Requirements

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1. List of Goods and Delivery Schedule

Item No	Description of Goods	Quantity for all locations	unit	Delivery Date		
				Earliest Delivery Date	Latest Delivery Date	Bidder's offered Delivery date
<i>01</i>	<i>Solar Modules (Specify the proposed quantity)</i>		<i>Nos</i>			
<i>02</i>	<i>Inverter with MPPT</i>	<i>11</i>	<i>Nos</i>			
<i>03</i>	<i>Surge protecting devices, Isolators, RCDs, MCBs, Cables, Mounting structure, etc.</i>	<i>07</i>	<i>Sets</i>			
Final (Project Site) Destination as specified in BDS	<i>Ruhunuketha circuit bungalow, System B, Welikanda</i>			<i>01 week</i>	<i>08 weeks</i>	
	<i>Main building, RPM office, System G, Bakamoona</i>					
	<i>Main building, EIC office, Mapakada</i>					
	<i>Main building, EIC office, Maduruoya</i>					
	<i>Main building, RPM office, Rambakenoya</i>					
	<i>Circuit bungalow, System C, Dehiathtakandiya</i>					
	<i>Main building, RPM office, System D, Medirigiriya</i>					

Name of Bidder

[Insert complete name of Bidder]

Signature of Bidder

[Signature of person signing the Bid]

Date

[Insert date]

2. List of Related Services and Completion Schedule

Item No	Description of Goods	Quantity for each location	unit	Final Completion Date (s) of Services	
				Latest Completion Date	Bidder's offered Completion date
<i>01</i>	<i>CEB Clearance</i>	<i>01</i>	<i>Item</i>		
<i>02</i>	<i>Installation of Solar system</i>	<i>01</i>	<i>Item</i>		
<i>03</i>	<i>Testing</i>	<i>01</i>	<i>Item</i>		
<i>04</i>	<i>CEB Connection</i>	<i>01</i>	<i>Item</i>		
<i>05</i>	<i>Commissioning</i>	<i>01</i>	<i>Item</i>		
Final (Project Site) Destination as specified in BDS	<i>Ruhunuketha circuit bungalow, System B, Welikanda</i>			<i>08 week</i>	
	<i>Main building, RPM office, System G, Bakamoona</i>				
	<i>Main building, EIC office, Mapakada</i>				
	<i>Main building, EIC office, Maduruoya</i>				
	<i>Main building, RPM office, Rambakenoya</i>				
	<i>Circuit bungalow, System C, Dehiathtakandiya</i>				
	<i>Main building, RPM office, System D, Medirigiriya</i>				

Name of Bidder

[Insert complete name of Bidder]

Signature of Bidder

[Signature of person signing the Bid]

Date

[Insert date]

3. Technical Specifications

3.1. Introduction

The Solar PV system and other associated system elements shall be designed to ensure continuity of operation under all working conditions and to facilitate inspection, maintenance and repairs. Every effort shall be made during design and selection of equipment, with a reasonable safety margin, to ensure;

1. Trouble free operation of the solar PV system during its intended design life
2. Safety of operating personnel, equipment and accessories
3. Continuous supply of spare parts in case of faulty situation

3.1.1. General

- a. This specification covers the general requirements for Supply, Installation and Commission of on grid solar PV systems. The proposed solar systems will be installed at the locations mentioned under the list of goods and delivery schedule in Section V, Schedule of Requirements.
- b. Layout plan and mounting structures to be prepared. Solar panels shall be mounted on an Aluminum or non-corrosive metal structure without affecting the architectural view of the building. Cost of structure is required to be included in the Bid.
- c. Typical connection arrangement of the system shall be as specified under the drawing in *Section V, Schedule of Requirements*.
- d. Complete system shall comply with the CEB requirements for *net accounting* facility and auto isolation feature (*anti-islanding*) shall be available when failure or malfunction of CEB grid connection.
- e. All equipment offered shall be brand new, latest in model/version and currently in production and shall comply with IEEE 1547/VDE 0126 -1-1. It shall be completed with standard components and accessories to perform the desired functions and conform to the required specification.

3.1.2. Scope

The scope of work includes;

Supply, install and commission of on-grid rooftop solar PV systems for office buildings at zonal MASL offices – stage IMahaweli Authority of Sri Lanka with associated power evacuation system and other facilities. The Solar PV system shall be connected to the existing low voltage network of the building which operates at 400 Volts, 50 Hz.

- a. Supply and complete installation of required number of solar panels with all necessary mounting structures and associated civil works on the allocated space of the roof/slab.
- b. Supply and installation of all other standard components to complete the system including the inverter, combiner box (if need), distribution board AC and DC cables and isolation switches, surge arrestors and protection devices.
- c. Installation of necessary grounding system
- d. Connect the system to relevant CEB grid
- e. Testing and Commissioning of the system

- f. Certification of the system complied with the CEB regulations to obtain the net accounting facility.
- g. Providing essential Maintenance Services to Solar PV System for a period of two years (02) within the manufacturer’s warranty period free of charge from the date of commissioning. Before releasing the final payment of 10%, the Supplier must sign the maintenance services agreement with the client.

3.1.3. System cost

- a. The system cost shall include all the costs related to above Scope of Work. Bidder shall quote for the entire facilities on a basis such that the total Bid Price covers all the obligations mentioned in this specification respect of Design, Supply, Installation, Testing and Commissioning Including Warranty, Operation & Maintenance, goods and services including spares required (if any) during operation & maintenance period.
- b. The Bidder has to take all necessary permits, approvals and licenses to complete the scope of work. The project cost shall remain firm and fixed and shall be binding on the Successful Bidder till completion of work for payment his actual cost of execution of the project.
- c. No escalation will be granted on any reason whatsoever. The bidder shall not be entitled to claim any additional charges, even though it may be necessary to extend the completion period for any reasons whatsoever. The cost shall be inclusive of all duties and taxes, insurance etc. The prices quoted by the firm shall be complete in all respect and no price variation/adjustment shall be payable.
- d. The operation & maintenance of Solar PV System would include wear, tear, overhauling, machine breakdown and replacement of defective modules, invertors, spares, consumables & other parts till the end of warranty period.

3.2 Operating Conditions

- a. Design data:
 - i. Weather Condition Humid Tropical Climate
 - ii. Wind gusts speed 50 m/s
 - iii. Min. Ambient Temperature 15 °C
 - iv. Max. Ambient Temperature 40 °C
 - v. Max. Relative Humidity 98%
- b. The solar PV array and mounting structure must be able to withstand wind gusts speed up to 50 m/s without damage.
- c. All wiring, enclosures, and fixtures that are mounted outdoors must be resist to high humidity, corrosion, insect and dust intrusion. Use of corrosion resistance terminals is required. Protection of the electronic circuit boards from corrosion by potting or applying a conformal coating is recommended.
- d. The design data specified herein are average values for concerned location. Its bidder’s responsibility to obtain precise data required to optimize the performance of system without compromising safety norms on his own cost.

3.3. Grid Parameters

Bidders shall consider grid parameters specified herein to integrate the solar PV system with the utility grid. Also, Bidders shall obtain further data (*if necessary*) from relevant authorities to establish complete synchronization and protection. Costs associated with the integration of solar PV system and utility grid shall be included in the bid and quote separately in the Price Schedule.

- i. Grid Nominal Voltage : 400 V
- ii. Grid Highest Voltage : 440 V
- iii. No. of phases : 3 phase and neutral
- iv. System frequency : 50 Hz
- v. Method of grounding : Solidly Earthed
- vi. Grid Frequency tolerance range: +/- 3%
- vii. Grid Voltage Tolerance : -6% & +10%

3.4. Accessories

3.4.1. Specifications/standards/requirements for Solar PV Modules

The solar PV modules intend to use for the proposed solar PV system should be in conformity to following standards and requirements;

- a. Rated output of module shall be within 0~ +5W of the declared value.
- b. Shall perform in an operating environment where; solar PV panel temperature ranging between 10°C to 85°C and relative humidity is 98%.for long pried of time and need to provide documents to this situation.
- c. Economic life should be more than 20 years.
- d. Module fill factor shall be 0.7 or higher.
- e. Modules shall be encapsulated and sealed to protect silicon cells from external environment and prevent ingress of moisture during its economic life.
- f. The PV modules must be tested & approved by one of the IEC authorized test centers as per relevant and latest IEC standards.
- g. The modules should comply with IEC 61215/ IEC 61730, Electrical Protection Class II and CE guidelines or latest for safety.
- h. Solar modules should IEC 61215, IEC 61730, UL 1703 & ISO 9001:2008 certified and comply to the QC080000 HSPM regulations (*certificate copies should be provided*)
- i. Solar cell surface to be coated with anti-reflective coating.
- j. Module frame shall be made out of corrosion resistant material and shall be compatible with the mounting structures to prevent corrosion.
- k. Module shall be built to withstand against 50 m/s of wind speed.
- l. The bidder should be an Authorized Representative to market and service of this product in Sri Lanka (*Attach a copy of the Authorization letter from the manufacture*).
- m. Manufacture warranty for the solar modules should be 10 years, and supplier performance warranty should be indicated against 85% power output in 20th year. Warranty statement from the Manufacturer should be attached.

- n. Indicate the period of the insurance cover provided against the insolvency or bankruptcy of the manufacturer in case of a claim within the said warranty period.

3.4.2. Identification of solar PV modules

Solar PV modules shall be provided with RF identification label. This should include following essential information pertaining to design and manufacture of solar cells and modules;

- a. Name of the PV module manufacturer
- b. Country of solar cells
- c. Country of solar module
- d. Date and year of manufacture of solar cells
- e. Date and year of solar module manufacture
- f. Type or model number
- g. Serial number
- h. Module I-V curve
- i. Power rating
- j. Name of testing agency for IEC certification
- k. Date and year of obtaining IEC qualifying certificate for solar PV module
- l. Maximum permissible system voltage for which the module is suitable

3.4.3. Specifications/standards/requirements for Inverter (or Power conditioning unit)

- a. The Inverter operation shall be based on Maximum Power Point Tracking (MPPT) principle.
- b. The grid interconnection protection scheme required (shall be as per the standards and requirement specified by the Ceylon Electricity Board) at the grid interface may be built in to inverter or separately provided (Most of the modern Inverters are equipped with this protection scheme as a built-in capability). The Bidders are expected to study and understand the protection scheme required at the grid interface prior to choose the Inverter.
- c. Inverter shall be protected against incorrect polarity of DC input.
- d. The power quality of the Inverter output shall be as specified by the Ceylon Electricity Board (as per the standard and specifications by CEB).
- e. The nominal Inverter power output shall be delivered to the existing low voltage network at three (03) phases, 400V, 50 HZ.
- f. 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.
- g. The Inverter efficiency shall be 98% or more.
- h. The applicable IP class shall be *IP 65* or higher as per IEC 62208 specifications.
- i. Shall be built with capability to synchronize with low voltage grid.
- j. Shall be built with capability to log data, remote monitoring and data transferring to remote computer.
- k. Shall be built with capability to protect against incorrect polarity.
- l. Inverters shall be manufacturer warranted for a minimum of seven (07) years.

- m. The Inverters should be grid interactive and also DG set interactive if necessary. Inverter output should be compatible with the grid frequency. Typical technical features of the inverter in addition to the above shall be as follows:
 - i. Grid Frequency Synchronization range: +/- 3Hz
 - ii. Maximum Input DC Voltage: Depending on the inverter used. (Shall not exceed overloading limits as specified by manufacturer)
 - iii. No-load losses: Less than 1% of rated power.
 - iv. THD: < 3%
- n. Inverters shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
- o. Inverters should comply with applicable IEC standard for efficiency measurements and environmental tests as per standard codes IEC 61683 and IEC 60068 2(6, 21, 27,30, 75, 78). The MPPT units should qualify IEC 62093 and IEC 60068 2 (6, 21, 27, 30, 75, 78).
- p. Inverters should comply with IEEE 1547 (and IEC 62116) for islanding protection and interconnecting with grid as required by LECO and CEB
- q. Inverters should be tested and approved by internationally recognized test houses.
- r. The bidder should be an Authorized Representative to market and service this product in Sri Lanka or should be purchased from authorized dealer (Attach a copy of the Authorization letter).

3.4.5. Specifications/standards/requirements for Array Structure

- a. The structures provided shall be of flat-plate design with combination of I, C and L sections as per structure design requirement to withstand 50 m/s wind speed. Suitable fastening arrangement such as grouting and clamping should be provided to secure the installation against the specified wind speed. 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. Structural material shall be corrosion resistant and electrolytic ally compatible with the materials used in the module frame, its fasteners, nut and bolts.
- b. Aluminum structures also can be used which can withstand the wind speed of 50m/s. Necessary protection towards rusting shall be provided either by coating or anodization. The fasteners used should be made up of stainless steel. Proper sealing materials to be employed for roof penetrations. All structural members shall be made out of either hot dip galvanized steel or corrosion resistant aluminum or stainless steel.
- c. The structures shall be designed to allow easy replacement of any module. Panel array to be oriented towards East-West direction wherever possible.
- d. Each structure should have angle of inclination as per the site conditions to take maximum irradiance. However, to accommodate more capacity the angle inclination may be reduced until the plant meets the specified performance ratio requirements.
- e. Regarding civil structures the bidder need to take care of the load baring capacity of the roof and need arrange suitable structures based on the quality of roof.
- f. The mounting structure could be removed easily on a major roof repair and reinstall using the same materials (*indicate the warranty of the mounting structure*).
- g. The module alignment and tilt angle shall be calculated to provide maximum annual energy output wherever possible. The existing roof alignment may be followed if the difference in energy yield (*energy maximum tilt angle Vs roof angle*) found to be

insignificant. The panel mounting angle shall be as much as closed to the optimum value.

- h. Free space to be provided between panel rows for ease of maintenance which include replacement, inspection and cleaning of panels.
- i. Panels to be separated from the roof surface using a suitably space (*as per the installations guide of SLSI*) to prevent the generation of excessive heat under the panels.
- j. Appearance of the roof, if visible at a distance, also to be considered for deciding mounting angle.
- k. Proper sealing materials to be employed for roof penetrations.
- l. Materials shall be UV resistant and shall be designed to withstand the temperatures to which they are exposed.
- m. Dissimilar metals, if used, shall be isolated from one another using non-conductive materials.

3.5. Distribution board

- a. DC Distribution panel is needed to receive the DC output from the array field, with analogue measurement panel for voltage, current from different MJBs so as to check any failure in the array field.
- b. It shall have MCCBs of suitable rating for connection and disconnection of array sections. DCDB shall be fabricated by CRC Sheet to comply with IP-65 protection.

3.6. Cables and conduits

- a. The cables used in the system should be XLPE insulated copper conductors. Cables of various sizes as per load requirement for connecting all the modules/arrays to Junction Boxes, Junction Boxes to DC distribution box and DC distribution box to inverter. The cables shall be able to handle maximum expected current in case of a short circuit condition.
- b. Cross section area of the conductors shall be selected such that energy losses are within the stipulated limits.
- c. Cross section area of the conductors shall be selected such that voltages are managed at stipulated limits to facilitate trouble free operation of the equipment and PV system. Over current protection shall be provided at appropriate levels of the network.
- d. The DC cable network shall be designed such that energy losses are kept below 2% when transferring the rated power. Similarly, energy losses at AC side shall be kept below 1%.
- e. Copper / Aluminum Cables of appropriate size shall be provided from Inverter onwards in AC side. Only copper wires of appropriate size and of reputed-made shall have to be used. However, Aluminum cables can be used on AC side of transmission. The permissible voltage drop from the solar modules to inverter shall not be more than 2% of peak power voltage of the power source (solar panel).
- f. All connections should be properly terminated, soldered and/or sealed from outdoor and indoor elements. Cables shall be terminated using proper tools.
- g. All cables used outdoor shall comply with latest standards. In general, relevant IEC standards should be adopted in calculation of current rating, voltage drops and cable de-rating factors.
- h. Cabling and other accessories should be warranted, and indicate the warranty period including for the workmanship.

- i. Cables to be taken through either conduits or cable trays and the same shall be firmly secured.
- j. All exposed cables, conduits and cable trays shall be resistance to UV radiation, heat and abrasion.

3.7. Data monitoring equipment:

- a. The system performance parameters shall be measured by using a data logging system for maintenance, control and monitoring of system.

3.7.1. Protection

The system should be provided with all necessary protections like grounding, lightening, and grid islanding as follows:

3.7.2. Lightning protection

- a. There shall be the required number of suitable lightning arrestors (ESE) installed in the array area. Lightning protection shall be provided by the use of metal oxide arrestors and suitable grounding such that induced transients find an alternate route to earth.
- b. If the existing lightning protection system is not sufficient to protect the proposed solar PV panel system, it is required to install additional lightning protection to the system. Cost of the lightning protection system shall be included in the bid quote separately in the Price Schedule. Relevant technical details and drawings shall be submitted with the offer.

3.7.3. Grounding protection

- a. All components and exposed metal parts in the system shall be properly grounded. Solar panels shall include both equipment and system grounding. In addition, the lightning arrester/masts should also be provided inside the array field if applicable.
- b. Provision should be kept for shorting and grounding of the PV array at the time of maintenance work. AC Distribution Board and DC Distribution Board should also be earthed properly. It shall be ensured that all the grounding points are bonded together to make them at the same potential.
- c. Grounding shall meet such norms as specified in the electrical code of practice in use and as specified by utilities cost of necessary grounding shall be included in the bid.

3.7.4. Grid Islanding & Surge Protection

- a. Solar system shall be equipped with islanding protection. In addition to disconnection from the grid (islanding protection i.e. on no supply), under and over voltage conditions shall also be provided. Solar system shall include the surge arrestors to protect the system from the surges.
- b. Solar system shall be provided with adequate rating fuses, fuses on inverter input side (DC) as well as output side (AC) for overload and short circuit protection and disconnecting switches to isolate the DC and AC system for maintenances as needed.

- c. Fuses of adequate rating shall also be provided in each solar array module to protect them against short circuit.

3.8. Earthing

- a. All non-current carrying metal objects such as solar PV panel frames, mounting structures, enclosures etc. shall be grounded using unbroken earth wire. Earth wire shall be neither disconnected nor connected via fuse or any other link which has the tendency for physical opening or separation.
- b. Earthing system shall be electrically connected to provide return to earth path from all equipment irrespective of their mechanical connection.
- c. The solar PV system shall be protected against lightning by providing lightning arrestor terminal at the roof top.
- d. Earth resistance shall be less than ten (10) Ohm. (if necessary, a separate earth system to be done to connect to the existing system)
- e. Test point shall be provided for earth electrode for inspection and testing
- f. The earth wire conductor shall be made out of copper and shall be designed to withstand expected highest current.

3.9. Site visits- Pre bid Meeting

The bidder shall visit the sites and acquaint all information that may necessary for the design purpose at his own cost. It is required to get the permission for such inspection from the site during their office hours.

3.10. Manuals and Training

- a. The unit shall be supplied with necessary operation and service manuals in ENGLISH.
- b. The successful bidder shall provide a complete on-site training to the staff-in-charge on operation and maintenance of the unit.

3.11. Warranty

- a. The bidder shall warrant that the goods supplied under this contract are new, unused, of the most recent or latest technology and incorporate all recent improvements in design and materials.
- b. The bidder shall provide manufacturer warrantee covering the rectification of any and all defects in the design of equipment, materials and workmanship including spare parts (*if any*) for a period of not less than 10 years from the date of commissioning.
- c. Such a warranty shall also include servicing and preventive maintenance during this period. Bidder shall specify in detail the means available to them to implement such a warranty.
- d. Indicate the warranty from the date of commissioning and it is required for the performance of the system. Further, minimum warranty is required for the inverters and modules with not more than 15% performance degradation in accordance with industrial standard warranty conditions.

3.12. Documents

The following documents shall be submitted along with the Tender;

1. Estimated annual energy generation for 20 years developed by PVsyst application with a plant factor of 15%
2. Catalogues with technical literature of the offered units
3. Duly filled and signed technical schedule
4. Schematic drawings for panel layout
5. Single line diagram.
6. Certificate from internationally recognized testing laboratory or organization to conform the quality of the equipment
7. Performance curve of PV panels for its life time
8. Warranty contract and associated documents
9. Manufacture authorization letters.

Detailed Technical Specifications and Standards

No	Descriptions	Required Specification	Bidders' response		Bidders' remarks
			Yes	No	
General					
a	DC/AC ratio shall be not less than	1.2			
b	Plant DC capacity shall be not less than				
	Circuit bungalow, Ruhunuketha	48 kWp			
	RPM office, System G	48 kWp			
	EIC office, Mapakada	24 kWp			
	EIC office, Maduruoya	24 kWp			
	RPM office, Rambakenoya	48 kWp			
	Circuit bungalow, Dehiathtakandiya	24 kWp			
	RPM office, System D	60 kWp			
c	Estimated cumulative energy generation for 20 years in kWh				
	Circuit bungalow, Ruhunuketha	Pl. Specify			
	RPM office, System G	Pl. Specify			
	EIC office, Mapakada	Pl. Specify			
	EIC office, Maduruoya	Pl. Specify			
	RPM office, Rambakenoya	Pl. Specify			
	Circuit bungalow, Dehiathtakandiya	Pl. Specify			
	RPM office, System D	Pl. Specify			

1. Inverter					
1.1	Inverter 20 kW				
1.1.1	Brand Name	Pl. Specify			
1.1.2	Model No	Pl. Specify			
1.1.3	Country of Origin	Pl. Specify			
1.1.4	Country of Manufacture	Pl. Specify			
1.1.5	Inverter shall be	MPPT type			
1.1.6	Inverter shall be	Three phase string inverter type			
1.1.7	Topology shall be	Transformer less			
1.1.8	Maximum operating temperature shall be not less than	45° C			
1.1.9	Cooling method shall be	Fan cooling			
1.1.10	Protection rating shall be	IP 65 or greater			
1.1.11	Inbuilt protection shall be support on	Reverse polarity protection			
		Anti-islanding protection			
		Insulation resistance detection			
		Residual current monitoring			
		O/P over current protection			
		O/P short circuit protection			
		I/P over voltage protection			
		AC/DC surge protection			
1.1.12	Maximum efficiency shall be not less than	98%			

Section V – Schedule of Requirement

1.1.13	Maximum output AC power (Active) shall be not less than	20 kW			
1.1.14	Rated grid frequency shall be	50 Hz			
1.1.15	Display shall be	Mobile App + LED / LCD			
1.1.16	Communication shall be	RS485 with Wifi/ GPRS			
1.1.17	Internal power consumption at night shall be not more than	1 W			
1.1.18	AC & DC SPD Protection class shall be not less than	Type II			
1.1.19	Grid Code shall be	IEEE 1547 or Equivalent			
1.1.20	Shall follow the safety standards of	IEC 62116			
		IEC 61727			
		IEC 61683			
		IEC 60068			
1.1.21	Fire protection shall be	IEC 60947 or Equivalent			
1.1.22	Electrical shocks & fire protection shall be	IEC 62109 or Equivalent			
1.1.23	Minimum warranty shall be	Ten (10) years on manufacturing defects.			
1.2	Inverter 25 kW				
1.2.1	Brand Name	Pl. Specify			
1.2.2	Model No	Pl. Specify			
1.2.3	Country of Origin	Pl. Specify			
1.2.4	Country of Manufacture	Pl. Specify			
1.2.5	Inverter shall be	MPPT type			
1.2.6	Inverter shall be	Three phase string inverter type			

Section V – Schedule of Requirement

1.2.7	Topology shall be	Transformer less			
1.2.8	Maximum operating temperature shall be not less than	45° C			
1.2.9	Cooling method shall be	Fan cooling			
1.2.10	Protection rating shall be	IP 65 or greater			
1.2.11	Inbuilt protection shall be support on	Reverse polarity protection			
		Anti-islanding protection			
		Insulation resistance detection			
		Residual current monitoring			
		O/P over current protection			
		O/P short circuit protection			
		I/P over voltage protection			
		AC/DC surge protection			
1.2.12	Maximum efficiency shall be not less than	98%			
1.2.13	Maximum output AC power (Active) shall be not less than	25 kW			
1.2.14	Rated grid frequency shall be	50 Hz			
1.2.15	Display shall be	Mobile App + LED / LCD			
1.2.16	Communication shall be	RS485 with Wifi/ GPRS			
1.2.17	Internal power consumption at night shall be not more than	1 W			
1.2.18	AC & DC SPD Protection class shall be not less than	Type II			
1.2.19	Grid Code shall be	IEEE 1547 or Equivalent			

Section V – Schedule of Requirement

1.2.20	Shall follow the safety standards of	IEC 62116			
		IEC 61727			
		IEC 61683			
		IEC 60068			
1.2.21	Fire protection shall be	IEC 60947 or Equivalent			
1.2.22	Electrical shocks & fire protection shall be	IEC 62109 or Equivalent			
1.2.23	Minimum warranty shall be	Ten (10) years on manufacturing defects.			
2. Solar module					
2.1	Brand Name	Pl. Specify			
2.2	Model No	Pl. Specify			
2.3	Country of origin	Pl. Specify			
2.4	Country of manufacture	Pl. Specify			
2.5	Module dimension shall be less than	L - 2.5 m x W - 1.2 m			
2.6	Weight shall be not more than	30 kg			
2.7	Module power rating shall be not less than	550 Wp			
2.8	Working temperature shall be between	0° C - 85° C			
2.9	Module efficiency shall be not less than	20 %			
2.10	Cell type shall be	Monocrystalline			
2.11	Power Tolerance shall be between	0 ~ +5W			
2.12	Shall be followed the Standards	IEC 61215, IEC 61730 or Equivalent			
2.13	Protection rating of junction box shall be	IP 68 or greater			
2.14	Quality Management shall be satisfied	ISO 9001: 2008, ISO 14001:2004 or Equivalent			
2.15	Safety class shall be	Class II or higher			

2.17	Minimum Warranty shall be	10 years Manufacturer warranty & supplier performance warranty indicated against 85% power output in 20th year. (Warranty statement from the Manufacturer should be attached)			
3. Cables and Mounting Components					
3.1	DC Cables				
3.1.1	Make	Pl. Specify			
3.1.2	Country of Origin	Pl. Specify			
3.1.3	Standards shall be	EN 50618: 2014 / BS 7671 or Equivalent			
3.1.4	Cable type shall be	XLPE/Cu			
3.1.5	Cross section shall be not less than	4 mm ² for length less than 100m			
		6 mm ² for length more than 100m			
3.1.6	Maximum allowable temperature shall be not less than	80° C			
3.1.7	Shall be UV protected	Pl. Specify			
3.2	AC Cables				
3.2.1	Make	Pl. Specify			
3.2.2	Country of Origin	Pl. Specify			
3.2.3	Standards shall be	SLS / BS 7671 or equivalent			
3.2.4	Voltage drop shall be not more than	2%			
3.2.5	Cable type shall be	XLPE/Cu or XLPE/Al			

Section V – Schedule of Requirement

3.2.6	Maximum allowable temperature shall be not less than	80° C			
3.2.7	Shall be UV protected	Pl. Specify			
3.3	Mounting Structure				
3.3.1	Railings shall be	Aluminum (resist to corrosion)			
3.3.2	Nuts & bolts shall be	resist to corrosion			
3.3.3	Other fixing components shall be	resist to corrosion			
4. Monitoring System					
4.1	Monitoring system shall be included	Real time data			
4.2		Past data			
4.3		Peak power			
4.4		Cumulating power			
4.5		Power & energy graphs			
4.6		Fault & safety vent			
4.7	On-site Training shall be provided to the staff-in-charge on operation and maintenance of the commissioned system.	Pl. Specify			
4.8	Printed version of operation and maintenance procedure of the complete system shall be provided.	Pl. Specify			
5. Surge Protection Device					
5.1	Model	Pl. Specify			
5.2	Country of origin	Pl. Specify			
5.3	Country of manufacture	Pl. Specify			
5.4	Design shall be	Type ii or better			
5.5	Maximum Current	Pl. Specify			
5.6	Maximum Energy	Pl. Specify			

Section V – Schedule of Requirement

5.7	Maximum allowable number of surges shall be not less than	15			
5.8	Response Time shall be not more than	8 μ S			
5.9	Separate earthing rod shall be installed with following features				
	Material shall be	Copper			
	Length shall be not less than	3 m			
	Diameter shall be not less than	10 mm			
	Earth resistance shall be not more than	10 Ω			
5.10	Warranty shall be not less than	01 year			

Name of Bidder

[Insert complete name of Bidder]

Signature of Bidder

[Signature of person signing the Bid]

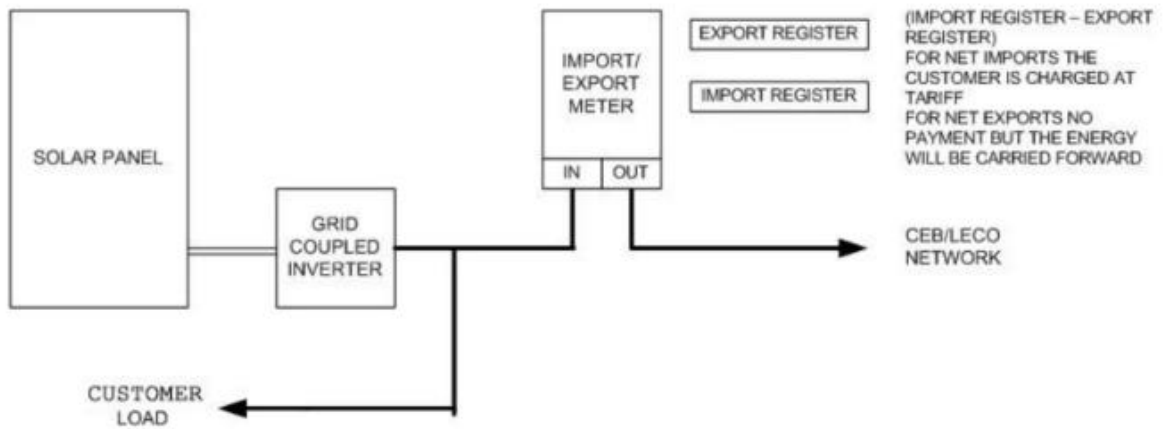
Date

[Insert date]

4. Drawings

These Bidding Documents includes

No	Drawing Title
01	TYPICAL CONNECTION ARRANGEMENT FOR THE SCHEMES ARE AS FOLLOWS



5. Inspections and Tests

The following inspections and tests shall be performed:

1. *A team nominated by the purchaser will inspect the solar systems at the installed locations after established. Completion certificates will be issued by the team after the inspection.*
2. *Contractor must ensure the efficiency of the Solar PV system and shall meets the forecasted annual energy generation in the tender.*
3. *Tests without interconnection (Insulation of LV connections DC and AC, String Insulation, Measurement of Earth Resistance) and Test with interconnection shall be arranged from SLSEA according to the “Guidelines on Rooftop Solar PV Installation for Solar Service Providers” published by the Public Utilities Commission of Sri Lanka*
4. *The completion certificate will be issued after successful completion of above tests, submission of comprehensive insurance and after signing of maintenance agreement with MASL*

Section VI

Conditions of Contract

- 1 Definitions
- 1.1 The following words and expressions shall have the meanings hereby assigned to them:
- (a.) “Contract” means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
 - (b.) “Contract Documents” means the documents listed in the Contract Agreement, including any amendments thereto.
 - (c.) “Contract Price” means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.
 - (d.) “Day” means calendar day.
 - (e.) “Completion” means the fulfillment of the supply of Goods to the destination specified and completion of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.
 - (f.) “CC” means the Conditions of Contract.
 - (g.) “Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.
 - (h.) “Purchaser” means the entity purchasing the Goods and Related Services, as specified in the Contract Data.
 - (i.) “Related Services” means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.
 - (j.) “Subcontractor” means any natural person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.
 - (k.) “Supplier” means the natural person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.
 - (l.) “The Project Site,” where applicable, means the place named in the Contract Data.
- 2 Contract Documents
- 2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.
- 3 Fraud and Corruption
- 3.1 The Government of Sri Lanka requires the Purchaser as well as bidders, suppliers, contractors, and consultants to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this policy:
- (a.) “Corrupt practice” means offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the procurement process or in contract execution;

- (b.)“Fraudulent practice” means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;
 - (c.)“Collusive practice” means a scheme or arrangement between two or more bidders, with or without the knowledge of the Purchaser to establish bid prices at artificial, noncompetitive levels; and
 - (d.)“Coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract.
- 4 Interpretation
 - 4.1 If the context so requires it, singular means plural and vice Versa.
 - 4.2 Entire Agreement

The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.
 - 4.3 Amendment

No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.
 - 4.4 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.
- 5 Language
 - 5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in English language. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified, in which case, for purposes of interpretation of the Contract, this translation shall govern.
 - 5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.
- 6 Joint Venture, Consortium or Association
 - 6.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.
- 7 Eligibility
 - 7.1 All goods supplied under this contract shall be complied with applicable standards stipulated by the Sri Lanka Standards Institute. In the absence of such standards, the

		Goods supplied shall be complied to other internationally accepted standards, such as British Standards.
8	Notices	<p>8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the Contract Data. The term “in writing” means communicated in written form with proof of receipt.</p> <p>8.2 A notice shall be effective when delivered or on the notice’s effective date, whichever is later.</p>
9	Governing Law	9.1 The Contract shall be governed by and interpreted in accordance with the laws of the Democratic Socialist Republic of Sri Lanka.
10	Settlement of Disputes	<p>10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.</p> <p>10.2 If, after twenty-eight (28) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. Arbitration proceedings shall be conducted in accordance with the Arbitration Act No: 11 of 1995.</p> <p>10.3 Notwithstanding any reference to arbitration herein, (a.) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and (b.) the Purchaser shall pay the Supplier any monies due the Supplier.</p>
11	Scope of Supply	11.1 The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.
12	Delivery and Documents	12.1 Subject to CC Sub-Clause 32.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. Where applicable the details of shipping and other documents to be furnished by the Supplier are specified in the Contract Data.
13	Supplier’s Responsibilities	13.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with CC Clause 11, and the Delivery and Completion Schedule, as per CC Clause 12.
14	Contract Price	14.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.
15	Terms of Payment	<p>15.1 The Contract Price, shall be paid as specified in the Contract Data.</p> <p>15.2 The Supplier’s request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as</p>

- appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to CC Clause 12 and upon fulfillment of all other obligations stipulated in the Contract.
- 15.3 Payments shall be made promptly by the Purchaser, but in no case later than twenty-eight (28) days after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it.
- 16 Taxes and Duties 16.1 The Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.
- 17 Performance Security 17.1 If required as specified in the Contract Data, the Supplier shall, within fourteen (14) days of the notification of contract award, provide a performance security of Ten percent (10%) of the Contract Price for the performance of the Contract.
- 17.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 17.3 As specified in the Contract Data, the Performance Security, if required, shall be in Sri Lanka Rupees and shall be in the format stipulated by the Purchaser in the Contract Data, or in another format acceptable to the Purchaser.
- 17.4 The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than twenty-eight (28) days following the date of Completion of the Supplier's performance obligations under the Contract, including any warranty obligations.
- 18 Copyright 18.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party.
- 19 Confidential Information 19.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract. Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under CC Clause 19.
- 19.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the

		Purchaser for any purpose other than the performance of the Contract.
	19.3	The above provisions of CC Clause 19 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.
	19.4	The provisions of CC Clause 19 shall survive completion or termination, for whatever reason, of the Contract.
20	Subcontracting	20.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original bid or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.
		20.2 Subcontracts shall comply with the provisions of CC Clauses 3 and 7.
21	Specifications and Standards	21.1 Technical Specifications and Drawings <ul style="list-style-type: none"> (a.) The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section V, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods' country of origin. (b.) The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser. (c.) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with CC Clause 32.
22	Packing and Documents	22.1 The Supplier shall pack the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract.
23	Insurance	23.1 Unless otherwise specified in the Contract Data, the goods supplied under the Contract shall be fully insured against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery.
24	Transportation	24.1 Unless otherwise specified in the Contract Data, responsibility for arranging transportation of the Goods shall be a responsibility of the supplier.
25	Inspections and Tests	25.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the Contract Data.

- 25.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods' final destination, or in another place as specified in the Contract Data. Subject to CC Sub-Clause 25.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.
- 25.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in CC Sub-Clause 25.2, provided that the Purchaser bear all of its own costs and expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.
- 25.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.
- 25.5 The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specification codes and standards under the Contract, provided that the Supplier's reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier's performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.
- 25.6 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.
- 25.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to CC Sub-Clause 25.4.
- 25.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to CC Sub-Clause 25.6, shall release the Supplier from any warranties or other obligations under the Contract.
- 26 Liquidated Damages
 - 26.1 Except as provided under CC Clause 31, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in the Contract Data of the delivered price of the

- delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those Contract Data. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to CC Clause 34.
- 27 Warranty
- 27.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 27.2 Subject to CC Sub-Clause 21.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.
- 27.3 Unless otherwise specified in the Contract Data, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract Data.
- 27.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.
- 27.5 Upon receipt of such notice, the Supplier shall, within the period specified in the Contract Data, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.
- 27.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the Contract Data, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.
- 28 Patent Indemnity
- 28.1 The Supplier shall, subject to the Purchaser's compliance with CC Sub-Clause 28.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:
- (a.) the installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and
 - (b.) the sale in any country of the products produced by the Goods.
- Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part

- thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.
- 28.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in CC Sub-Clause 28.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser’s name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.
- 28.3 If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.
- 28.4 The Purchaser shall, at the Supplier’s request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.
- 28.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney’s fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.
- 29 Limitation of Liability
- 29.1 Except in cases of criminal negligence or willful misconduct,
- (a.) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser and
- (b.) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the purchaser with respect to patent infringement
- 30 Change in Laws and Regulations
- 30.1 Unless otherwise specified in the Contract, if after the date of 28 days prior to date of Bid submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in Sri Lanka that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be

- correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with CC Clause 14.
- 31 Force Majeure
- 31.1 The Supplier shall not be liable for forfeiture of its performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure
- 31.2 For purposes of this Clause, “Force Majeure” means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.
- 31.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 32 Change Orders and Contract Amendments
- 32.1 The Purchaser may at any time order the Supplier through notice in accordance CC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:
- (a.) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
 - (b.) the method of shipment or packing;
 - (c.) the place of delivery; and
 - (d.) the Related Services to be provided by the Supplier.
- 32.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier’s performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier’s receipt of the Purchaser’s change order.
- 32.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.
- 32.4 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

- 33 Extensions of Time
- 33.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to CC Clause 12, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.
- Except in case of Force Majeure, as provided under CC Clause 31, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to CC Clause 26, unless an extension of time is agreed upon, pursuant to CC Sub-Clause 33.1.
- 34 Termination
- 34.1 Termination for Default
- (a.) The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
- (i) if the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to CC Clause 33;
- (ii) if the Supplier fails to perform any other obligation under the Contract; or
- (iii) if the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in CC Clause 3, in competing for or in executing the Contract.
- (b.) In the event the Purchaser terminates the Contract in whole or in part, pursuant to CC Clause 34.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.
- 34.2 Termination for Insolvency
- (a.) The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser
- 34.3 Termination for Convenience.

- (a.) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the contract is terminated and the date upon which termination becomes effective.
- (b.) The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
 - (i) to have any portion completed and delivered at the Contract terms and prices; and/or
 - (ii) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

35 Assignment

- 35.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

Section VII
Contract Data

The following Contract Data shall supplement and / or amend the Conditions of Contract (CC). Whenever there is a conflict, the provisions herein shall prevail over those in the CC.

CC 1.1(i)	The Purchaser is: <i>The Director General, Mahaweli Authority of Sri Lanka</i>
CC 1.1 (m)	The Project Site(s)/Final Destinations are given in the delivery schedule.
CC 8.1	<p>For notices, the Purchaser’s address shall be:</p> <p>Attention: <i>Director General,</i> <i>Mahaweli authority of Sri Lanka,</i> <i>No.500, T.B. Jayah Mawatha,</i> <i>Colombo 10</i></p> <p>Telephone: <i>011 2 695 051</i></p> <p>Facsimile number: <i>011 2 691 164</i></p>
CC 15.1	<p><i>Sample provision [Select appropriately]</i></p> <p>CC 15.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:</p> <p>A: For Goods offered within Sri Lanka</p> <p>Payment shall be made in Sri Lanka Rupees within thirty (30) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed.</p> <p>(i) Advance Payment: 20% of the initial contract price shall be paid upon submission of an Advance Payment Guarantee from a bank recognize by the Central Bank of Sri Lanka in accordance with the format given. Advance payment shall be repaid by deducting proportionate amount from the interim certificates. Advance payment shall be repaid in full when the total certified value of works reaches 90% of the Initial Contract Price.</p> <p>(ii) On Delivery: Up to a maximum of Ninety (90) percent of the Contract Price, shall be paid on receipt of the Goods and upon submission of the documents specified in CC Clause 12.</p> <p>(iii) On Acceptance: The remaining ten (10) percent of the Contract Price shall be paid to the Supplier within thirty (30) days after the date of the acceptance certificate for the respective delivery issued by the Purchaser. However, amount equal to twice the insurance premium + 10% of fist year will be withheld as a guarantee for the insurance premium for two next two years. This amount will be released after successful submission of insurance coverage.</p>

CC 17.1	A Performance Security <i>shall be required.</i> <i>The amount will be 10% of the total contract price</i>
CC 25.1	The inspections and tests shall be <i>carried out at site by a team nominated by the purchaser.</i>
CC 25.2	The Inspections and tests shall be conducted at <i>the established sites</i>
CC 26.1	The liquidated damage shall be <i>0.5 %</i> per week
CC 26.1	The maximum amount of liquidated damages shall be <i>5 %</i> of the contract price

Section VIII

Contract Forms

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CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT is made the day of, 2024
BETWEEN

(1) **Director General, Mahaweli Authority of Sri Lanka** and having its principal place of business at **No 500, T.B. Jayah Mawatha, Colombo 10**. (hereinafter called “the Purchaser”),

and

(2)[*Insert name of Supplier*], a corporation incorporated under the laws of[*insert: country of Supplier*] and having its principal place of business at
.....[*insert: address of Supplier*]
(hereinafter called “the Supplier”).

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., **Supply, install and commission of on-grid rooftop solar PV systems for office buildings at zonal MASL offices – stage I** and has accepted a Bid by the Supplier for the supply of those Goods and Services in the sum of
..... [Insert Contract Price in words and figures, expressed in the Contract currency (ies)] (Hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract:
 - (a) This Contract Agreement
 - (b) Contract Data
 - (c) Conditions of Contract
 - (d) Technical Requirements (including Schedule of Requirements and Technical Specifications)
 - (e) The Supplier’s Bid and original Price Schedules
 - (f) The Purchaser’s Notification of Award
 - (g) [*Add here any other document(s)*]
3. This Contract shall prevail over all other Contract documents. In the event of any discrepancy or inconsistency within the Contract documents, then the documents shall prevail in the order listed above.
4. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to

- provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
5. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of *Democratic Socialist Republic of Sri Lanka* on the day, month and year indicated above.

For and on behalf of the Purchaser

Signed: *[insert signature]*

in the capacity of *[insert title or other appropriate designation]*

in the presence of *[insert identification of official witness]*

For and on behalf of the Supplier

Signed: *[insert signature of authorized representative(s) of the Supplier]*

in the capacity of *[insert title or other appropriate designation]*

in the presence of *[insert identification of official witness]*

PERFORMANCE SECURITY

[The issuing agency, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]

[Issuing Agency's Name, and Address of Issuing Branch or Office]

*The Director General,
Mahaweli Authority of Sri Lanka,
9th Floor,
No 500, T.B. Jayah Mawatha,
Colombo 10.*

Date: -----

PERFORMANCE GUARANTEE No.: -----

We have been informed that -----
[name of Supplier] (hereinafter called "the Supplier") has entered into Contract No --
----- *[reference number of the contract]* dated ----- with you, for
the ***Supply, install and commission of on-grid rooftop solar PV systems for office
buildings at zonal MASL offices – stage I*** (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Supplier, we ----- *[name of Agency]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of ----- *[amount in figures]* (-----
-----) *[amount in words]*, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the day of, 20.. *[Insert date, 28 days beyond the scheduled completion date including the warranty period]* and any demand for payment under it must be received by us at this office on or before that date.

[Signature(s)]

GUARANTEE FOR ADVANCE PAYMENT

[The issuing agency, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated.]

[Is using agency's letterhead]

Date:

[Insert date (as day, month, and year) of Bid Submission]

ICB No. and title: **DDG/TS/CON/E&M/SOLAR/01**
Supply, install and commission of on-grid rooftop solar PV systems for office buildings at zonal MASL offices – stage I

**The Director General,
Mahaweli Authority of Sri Lanka,
9th Floor, No 500, T.B. Jayah Mawatha,
Colombo 10.**

ADVANCE PAYMENT GUARANTEE No.:
[Insert Advance Payment Guarantee no.]

We, *[Insert legal name and address of issuing agency]*, have been informed that *[Insert complete name and address of Supplier]* (Hereinafter called "the Supplier") has entered into Contract No. **DDG/TS/CON/E&M/SOLAR/01** dated *[Insert date of Agreement]* with you, for the supply of **Supply, install and commission of on-grid rooftop solar PV systems for office buildings at zonal MASL offices – stage I** (Hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance is to be made against an advance payment guarantee.

At the request of the Supplier, we hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[Insert amount(s) in figures and words]* upon receipt by us of your first demand in writing declaring that the Supplier is in breach of its obligation under the Contract because the Supplier used the advance payment for purposes other than toward delivery of the Goods.

It is a condition for any claim and payment under this Guarantee to be made that the advance payment referred to above must have been received by the Supplier on its account *[Insert number and domicile of the account]*

This Guarantee shall remain valid and in full effect from the date of the advance payment received by the Supplier under the Contract until *[Insert date]*.

.....
[Signature(s) of authorized representative(s) of the issuing agency]