



**Sindh Madressatul Islam  
University**

**DEVELOPMENT OF SINDH MADRESSATUL ISLAM UNIVERSITY  
(SMIU) CAMPUS AT EDUCATION CITY MALIR, KARACHI  
(SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF  
OFF-GRID SOLAR POWER SYSTEM FOR SEVEN NUMBER  
BUILDINGS)**



**VOLUME-I  
Conditions of Contract**



**EA Consulting Pvt Ltd**

**ARCHITECTURE | ENGINEERING | PROJECT MANAGEMENT  
PAKISTAN | UAE | CANADA**

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## **TABLE OF CONTENTS**

### **Description**

### **INVITATION FOR BIDS**

#### **Form**

### **INSTRUCTIONS TO BIDDERS**

#### **A. General**

- IB.1 Scope of Bid
- IB.2 Source of Funds
- IB.3 Eligible Bidders
- IB.4 One Bid Per Bidder
- IB.5 Cost of Bidding
- IB.6 Site Visit

#### **B. Bidding Documents**

- IB.7 Contents of Bidding Documents
- IB.8 Clarification of Bidding Documents
- IB.9 Amendment of Bidding Documents

#### **C. Preparation of Bids**

- IB.10. Language of Bid
- IB.11 Documents Accompanying the Bid
- IB.12 Bid Prices
- IB.13 Currencies of Bid and Payment
- IB.14 Bid Validity
- IB.15 Bid Security
- IB.16 Alternate Proposals by Bidder
- IB.17 Pre-Bid Meeting
- IB.18 Format and Signing of Bid

#### **D. Submission of Bids**

- IB.19 Sealing and Marking of Bids
- IB.20 Deadline for Submission of Bids
- IB.21 Late Bids
- IB.22 Modification, Substitution and Withdrawal of Bids

#### **E. Bid Opening and Evaluation**

- IB.23 Bid Opening
- IB.24 Process to be Confidential
- IB.25 Clarification of Bids
- IB.26 Examination of Bids and Determination of Responsiveness

- IB.27 Correction of Errors
- IB.28 Evaluation and Comparison of Bids

#### **F. Award of Contract**

- IB.29 Award
- IB.30 Procuring Agency's Right to Accept any Bid and to Reject any or all Bids
- IB.31 Notification of Award
- IB.32 Performance Security
- IB.33 Signing of Contract Agreement
- IB.34 General Performance of the Bidders
- IB.35 Integrity Pact
- IB.36 Instructions Not Part of Contract

### **BIDDING DATA**

#### **FORM OF BID AND APPENDICES TO BID**

##### **FORM OF BID**

- Appendix-A to Bid : Special Stipulations
- Appendix-B to Bid : Foreign Currency Requirements
- Appendix-C to Bid : Price Adjustment (Under Clause 70)
- Appendix-D to Bid : Bill of Quantities
- Appendix-E to Bid : Proposed Construction Schedule
- Appendix-F to Bid : Method of Performing the Work
- Appendix-G to Bid : List of Major Equipment – Related Items
- Appendix-H to Bid : Construction Camp and Housing Facilities
- Appendix-I to Bid : List of Subcontractors
- Appendix-J to Bid : Estimated Progress Payments
- Appendix-K to Bid : Organization Chart of the Supervisory Staff and Labour
- Appendix-L to Bid : Integrity Pact

#### **FORMS**

- BID SECURITY
- PERFORMANCE SECURITY
- CONTRACT AGREEMENT
- MOBILIZATION ADVANCE GUARANTEE/BOND

# **INVITATION FOR BIDS**



## SINDH MADRESSATUL ISLAM UNIVERSITY

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NO. SMIU/PC/MC/ Solar/Tend/2024/48

Karachi, dated: 21st October-2024

### **TENDER NOTICE**

Sindh Madressatul Islam University, Karachi invites e-bids only through E-Pak Acquisition & Disposal System (EPADS) on standard bidding documents from interested contractors/firms registered in the required PEC category and specialization for the following work. The tender shall be based **on the single stage – Two envelope procedure** under Rule No 46 (2) of SPPRA-Rules 2010 (Amended-2019/updated). Bidding documents can be viewed/downloaded from <https://portalsindh.eprocure.gov.pk/#/>: and also available and viewed from SMI, University's website: [www.smiu.edu.pk](http://www.smiu.edu.pk)

S.No .	Name of Work	Bid Security	Tender Fee	Time for Completion
(1)	(2)	(3)	(4)	(5)
1.	<b>Development of Sindh Madressatul Islam University (SMIU) Campus at Education City Malir, Karachi (Supply, Installation, Testing and Commissioning of OFF-GRID SOLAR POWER SYSTEM for seven number buildings)</b>	<b>2% of Bid Price</b>	<b>Rs. 5,000/-</b>	<b>06 Months</b>

Electronic Bids should be submitted through EPAD only. Interested bidders are required to get registered themselves on EPAD system in the link <https://sindh.eprocure.gov.pk/#/supplier/registration> for submission of electronic bids.

- 1- The bids prepared in accordance with the instruction given in the bidding document must be submitted on EPADS only by **Monday, 11th November-2024 by 02:30 pm**. The original instrument of tender fee and bid security @ 2% of the bid price in shape of Call Deposit/Pay order/Demand Draft/Bank Guarantee issued by any scheduled bank of Pakistan in favour of Sindh Madressatul Islam University Karachi must reach the Procuring agency in the sealed envelope prior to the deadline of submission of e-bids. The bids **will be opened on the same day at 03:30 pm** by the Procurement Committee in presence of the bidders or their authorized representatives who wish to be present, in the conference room No. 2, SMIU, main city campus Aiwan-e- Tijarat Road behind Habib Bank Plaza, Karachi.
- 2- **Mandatory Requirement:**
  - a. Valid registration with Pakistan Engineering Council (PEC), category C-4 or above with specialization codes EE11(vi) (Solar Installation) and EE04.
  - b. Registration with Sindh Revenue Board (SRB) with valid certificate.
  - c. Registration with Income Tax Department (NTN certificate) with activated status Federal Board of Revenue (FBR) list.
- 3- **Eligibility Criteria:**

In accordance with the criteria given in Section “**Evaluation Criteria and Qualification Updating Forms**” in Conditions of Contract Volume-I.
- 4- **Bid Validity Period:** 90 days.
- 5- Conditional bid and bid **without earnest money** shall not be considered.
- 6- Procuring Agency reserves the right to reject all or any bids subject to the relevant provisions of SPPRA Rules-2010 amended (2019).
- 7- In case any unforeseen situation resulting in closure of office on the date of opening or if Government declares holiday, the tender shall be submitted/opened on the next working day at the same time and venue.

**Project Coordinator  
SMIU Malir Campus,  
Karachi.**

# **INSTRUCTIONS TO BIDDERS**

## INSTRUCTIONS TO BIDDERS

(Note: These Instructions to Bidders along with Bidding Data will not be part of the Contract and will cease to have effect once the contract is signed.)

### A. GENERAL

- |             |                         |  |
|-------------|-------------------------|--|
| <b>IB.1</b> | <b>Scope of Bid</b>     | <p>1.1 The Employer as defined in the <b>Bidding Data</b> hereinafter called “the Employer” wishes to receive bids for the construction and completion of works as described in these Bidding Documents, and summarized in the <b>Bidding Data</b> hereinafter referred to as the “Works”.</p> <p>1.2 The successful Bidder will be expected to complete the Works within the time specified in the <b>Bidding Data</b>.</p>   |
| <b>IB.2</b> | <b>Source of Funds</b>  | <p>2.1 The Employer has applied for/received a funding from the source(s) in various currencies towards the cost of the project specified in the <b>Bidding Data</b> and it is intended that part of the proceeds of this funding will be applied to eligible payments under the Contract for which these Bidding Documents are issued.</p>  |
| <b>IB.3</b> | <b>Eligible Bidders</b> | <p>3.1 This Invitation for Bids is open to all Bidders meeting the following requirements at the time of submission of Bids and thereafter:</p> <p>(a) Duly prequalified for this bidding process;</p> <p>(b) Duly licensed by the Pakistan Engineering Council (PEC) in the category relevant to the value of the Works in the relevant field of specialization.</p> <p>However, a Foreign Constructor can submit provisional license with its Bid but the Foreign Constructor will be required to submit standard license after award of Contract and before start of work.</p> <p>Foreign Constructor shall not be eligible to participate in bidding individually. Foreign Constructor shall enter into joint venture with Pakistani Constructor registered with the Pakistan Engineering Council in equivalent/compatible category and submit the joint venture agreement to the Employer before participating in bidding in accordance with PEC Construction and Operation of Engineering Works Bye-laws, 1987;</p> <p>(c) Must be on Active Taxpayer List of the Federal Board of Revenue and provincial revenue authority/ board where applicable; and</p> <p>(d) All partners constituting the Bidder including proposed subcontractors do not appear in the list of debarred/ blacklisted firms and individuals on the websites of PEC and Federal &amp; Provincial Procurement Regulatory Authorities and have not been declared debarred/ blacklisted by foreign country, international organizations or other foreign institutions.</p> |

<b>IB.4</b>	<b>Eligible Materials, Equipment and Services</b>	4.1	All materials, equipment and services to be supplied under this Contract shall have their origin in eligible countriesdescribed under paragraph 4.4 hereunder.
		4.2	For purpose of this Clause, “origin” means the place where the Goods are mined, grown or produced or from where the ancillary services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembling of components, a commercially recognizedproduct results that is substantially different in basiccharacteristics or in purpose or utility from its components.
		4.3	The origin of Goods and Services is distinct from the nationality of the Bidder.
		4.4	Eligible countries to participate in this bidding process are those which have been notified by Ministry of Interior, Government of Pakistan as Business-Friendly Countries (BVL); information can be accessed through following link:  <a href="http://www.dgip.gov.pk/Files/Visa%20Categories.aspx#L">http://www.dgip.gov.pk/Files/Visa%20Categories.aspx#L</a>
<b>IB.5</b>	<b>One Bid per Bidder</b>	5.1	Each Bidder shall submit only one Bid either by himself, <del>or as a partner in a joint venture</del> . A Bidder who submits or participates in more than one Bid (other than alternativespursuant to Clause IB.17) will be disqualified.
<b>IB.6</b>	<b>Site Visit</b>	6.1	The Bidders are advised to visit and examine the Site ofWorks and its surroundings and obtain for themselves on theirown responsibility all information that may be necessary for preparing the Bid and entering into a contract for constructionof the Works. All cost in this respect shall be at the Bidder’s own expense.
		6.2	The Bidders and any of their personnel or agents will begranted permission by the Employer to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the Bidders, their personnel and agents, will release and indemnify the Employer, his personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection.
<b>B. BIDDING DOCUMENTS</b>			
<b>IB.7</b>	<b>Contents of Bidding Documents</b>	7.1	The Bidding Documents, in addition to Invitation for Bids, are those stated below and should be read in conjunction with any Addenda issued in accordance with Clause IB.9:



1. Instructions to Bidders;
2. Bidding Data;
3. Evaluation Criteria and Qualification Updating Forms;
4. General Conditions (GC);
5. Particular Conditions (PC):Part  
A - Contract Data;  
Part B - Special Provisions;
6. Specifications (SP):  
Part A - Specific Provisions; Part B  
- Technical Provisions;
7. Letter of Bid;
8. Schedules to Bid;
9. Standard Forms:  
(i) Form of Bid Security;  
(ii) Letter of Acceptance;  
(iii)(iii)Form of Contract Agreement;  
(iv)Form of Performance Security;  
(v) DAAB Agreement;  
(vi)Form of Mobilization Advance Guarantee;
10. Drawings.

7.2 The Bidders are expected to examine carefully the contents of all the above documents. Failure to comply with the requirements of Bid submission will be at the Bidder's own risk. Pursuant to Clause IB.26, bids which are not substantially responsive to the requirements of the Bidding Documents will be rejected.

**IB.8 Clarification  
of Bidding  
Documents,  
Pre-Bid  
Meeting**

- 8.1 Any prospective Bidder requiring any clarification(s) in respect of the Bidding Documents may notify the Employer in writing at the Employer's address indicated in the Invitation for Bids. The Employer will respond to any request for clarification which he receives earlier than the period specified in the **Bidding Data**, prior to the deadline for submission of bids.
- 8.2 Copies of the Employer's response will be forwarded to all purchasers of the Bidding Documents, including a description of the enquiry but without identifying its source.
- 8.3 The Employer may, on his own or at the request of any prospective Bidder(s), hold a pre-bid meeting to clarify issues and to answer any questions on matters related to the Bidding Documents. The date, time and venue of pre-bid meeting, if convened, are as stipulated in the **Bidding Data**. All prospective Bidders or their authorized representatives shall be invited to attend such a pre-bid meeting.
- 8.4 The Bidders are requested to submit questions, if any, in writing so as to reach the Employer not later than seven (7) days before the proposed pre-bid meeting.

	8.5	Minutes of the pre-bid meeting, including the text of the questions raised and the replies given, will be transmitted without delay to all purchasers of the Bidding Documents. Any modification of the Bidding Documents listed in Sub-Clause IB.7.1 hereof which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause IB.9 and not through the minutes of the pre-bid meeting.
	8.6	Absence at the pre-bid meeting will not be a cause for disqualification of a Bidder.
<b>IB.9 Amendment of Bidding Documents</b>	9.1	At any time prior to the deadline for submission of bids, the Employer may, for any reason, whether at his own initiative or in response to a clarification requested by a prospective Bidder, modify the Bidding Documents by issuing addendum.
	9.2	Any addendum thus issued shall be part of the Bidding Documents listed in Sub-Clause IB.7.1 hereof and shall be communicated in writing to all purchasers of the Bidding Documents. Prospective Bidders shall acknowledge receipt of each addendum in writing to the Employer.
	9.3	Such addendum shall be issued not later than number of days prior to the deadline for submission of bids, specified in the <b>Bidding Data</b> . To afford prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may extend the deadline for submission of bids in accordance with Clause IB.20.
<b>C. PREPARATION OF BIDS</b>		
<b>IB.10 Cost of Bidding</b>	10.1	The Bidders shall bear all costs associated with the preparation and submission of their respective bids and the Employer will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
<b>IB.11 Language of Bid</b>	11.1	The Bid and all correspondence and documents related to the Bid exchanged by a Bidder and the Employer shall be in the Bid language stipulated in the <b>Bidding Data</b> and Particular Conditions of Contract. Supporting documents and printed literature furnished by the Bidders may be in any other language provided the same are accompanied by duly certified translation of the relevant parts in the Bid language, in which case, for purposes of evaluation of the bid, the translation in Bid language shall prevail.
<b>IB.12 Documents Comprising the Bid</b>	12.1	Each Bidder shall: <ul style="list-style-type: none"> <li>(a) submit duly filled in, signed and stamped Letter of Bid and completed Schedules to Bid as required, including priced Bill of Quantities, in accordance with Clause IB.18 hereof;</li> </ul>

- (b) submit Bid Security in accordance with Clause IB.16 hereof;
- (c) submit alternative proposal, if permissible in accordance with Clause IB.17;
- (d) Submit a written power of attorney authorizing the signatory of the Bid to act for and on behalf of the Bidder. The name and position held by each person signing the authorization must be typed or printed below the signature;
- (e) submit the Qualification Updating Forms duly filled in, signed and stamped along with requisite attachments, to establish that the Bidder continues to meet the Eligibility and Qualification Criteria set out in the Pre- Qualification Documents and as provided in the Section "Evaluation Criteria and Qualification Updating Forms";
- (f) furnish a technical proposal taking into account the various Schedules to Bid, especially the following:  
Schedule-C to Bid, Proposed Construction Schedule; Schedule-D to Bid, Method of Performing the Work; Schedule-E to Bid, List of Major Equipment; Schedule-F to Bid, Organization Chart for Supervisory Staff; and other pertinent information, such as mobilization programme, etc.

12.2 Bids submitted by a joint venture of two (2) or more firms specified in **Bidding Data**, shall comply with the following requirements:

- (a) the bid, and in case of a successful bid, the Form of Contract Agreement shall be signed by all members so as to be legally binding on all partners;
- (b) one of the joint venture partners shall be nominated as being in-charge; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the joint venture partners;
- (c) the partner-in-charge shall always be duly authorized to deal with the Employer regarding all matters related with and/or incidental to the execution of Works as per the terms and Conditions of Contract and in this regard to incur any and all liabilities, receive instructions, give binding undertakings and receive payments on behalf of the joint venture;
- (d) all partners of the joint venture shall at all times and under all circumstances be liable jointly and severally for the execution of the Contract in accordance with the

Contract terms and a statement to this effect shall be included in the authorization mentioned under Sub- Para(b) above as well as in the Letter of Bid and in the Form of Contract Agreement (in case of a successful bid); and

- (e) a copy of the agreement entered into by the joint venture partners shall be submitted with the bid stating the conditions under which it will function, its period of duration, the persons authorized to represent and obligate it and which persons will be directly responsible for due performance of the Contract and can give valid receipts on behalf of the joint venture, the proportionate participation and corresponding duties & responsibilities of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. No amendments/ modifications whatsoever in the joint venture agreement shall be agreed to between the joint venture partners without prior written consent of the Employer.

- 12.3 Bidders shall also submit proposals of work methods and schedule, in sufficient detail to demonstrate the adequacy of the Bidders' proposals to meet the technical specifications and the completion time referred to in Sub-Clause IB.1.2 hereof.

### **IB.13 Bid Prices**

- 13.1 The price and discount if any quoted by the Bidders in the Letter of Bid and in the Bill of Quantity shall conform to the requirement specified below:
- 13.2 The Bidder shall quote any discounts and the methodology for their application.
- 13.3 If bids are being invited for individual lots (contracts) or for any combination of lots, the Bidders can offer discounts for the individual lots (contracts) as well as for award of more than one Contract and shall specify in their bid.
- 13.4 Unless stated otherwise in the Bidding Documents, the Contract shall be for the whole of the Works as described in Sub-Clause IB.1.1 hereof, based on the unit rates and/or prices.
- 13.5 The Bidders shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by a Bidder will not be paid for by the Employer when executed and shall be deemed covered by rates and prices for other items in the Bill of Quantities.
- 13.6 All duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to the deadline for submission of bids shall be included in the rates and prices and the total Bid Price submitted by a Bidder.

Additional/reduced duties, taxes and levies due to subsequent additions or changes in legislation shall be reimbursed/ deducted as per Sub Clause 13.6 [*Adjustment for Changes in Laws*] of the Conditions of Contract.

- 13.7 The rates and prices quoted by the Bidders are subject to adjustment during the performance of the Contract in accordance with the provisions of Sub-Clause 13.7 [*Adjustments for Changes in Cost*] of the General Conditions of Contract. The Bidders shall furnish the prescribed information for the price adjustment formulae in Schedule-A to Bid, and shall submit with their bids such other requisite supporting information if required under the said Schedule.

**IB.14 Currencies  
of Bid and  
Payment**

- 14.1 The unit rates and the prices shall be quoted by the Bidder entirely in Pak Rupee and shall be paid accordingly in same currency.

A Bidder expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Employer's country (referred to as the "Foreign Currency Requirements") shall indicate in Table III of Schedule-A to Bid the proportion of the Bid Price (excluding Provisional Sums) needed by him for the payment of such Foreign Currency Requirements; in such case the unit rates and the prices shall be quoted by the Bidder in Equivalent PKR.

- 14.2 The rates of exchange to be used by the Bidder for currency conversion shall be the TT Selling Rates published or authorized by the State Bank of Pakistan prevailing on the date twenty-eight (28) days prior to the deadline for submission of bids. Such rates shall be notified by the Employer not later than fourteen (14) days prior to the deadline for submission of Bids.

For the purpose of payments, the exchange rates used in Bid preparation shall apply for the duration of the Contract.

**IB.15 Bid Validity**

- 15.1 Bids shall remain valid for the period stipulated in the **Bidding Data** after the date of Bid Opening specified in Clause IB.23.
- 15.2 In exceptional circumstances, prior to expiry of the original bid validity period, the Employer may request that the Bidders extend the period of validity for a specified additional period which normally may not be more than the original bid validity period. The request and the responses thereto shall be made in writing. A Bidder may refuse this request of the Employer without his Bid Security being forfeited. A Bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his Bid Security for the period of the extension, and in compliance with Clause IB.16 in all respects.

**IB.16 Bid Security**

- 16.1 Each Bidder shall furnish, as part of his bid, a Bid Security in original form in the amount stipulated in the **Bidding Data** in PKR.
- 16.2 The Bid Security shall be in the form of **Call Deposit Receipt (CDR) / Pay Order issued by a Scheduled Bank in Pakistan** in favor of the Employer valid for a period 14 days beyond the Bid Validity date.
- 16.3 Any Bid not accompanied by an acceptable Bid Security shall be rejected by the Employer as non-responsive.
- 16.4 The Bid Securities of the Bidders except the lowest three will be returned by the Employer within twenty-eight (28) days from the opening of Bids, provided a Bidder request for the return of its Bid Security, or upon the expiry of original validity of Bid Security or as extended, whichever is earlier.
- 16.5 The Bid Security of the lowest three Bidders including the successful Bidder will be returned when the successful Bidder has furnished the required Performance Security.
- 16.6 The Bid Security may be forfeited:
  - (a) if the Bidder withdraws his bid except as provided in Sub Clause IB.22.1;
  - (b) if the Bidder does not accept the correction of his Bid Price pursuant to Sub Clause IB.28.2 hereof; or
  - (c) in the case of successful Bidder, fails to furnish the required Performance Security.

**IB.17 Alternative Proposals by Bidder**

- 16.7 In case of annulment, all Bids submitted and specially, Bid securities, shall be returned to the Bidders within 14 days of annulment.
- 17.1 Unless otherwise specified in the **Bidding Data**, alternative proposal(s) shall not be considered.
- 17.2 Should any Bidder consider that he can offer any advantages to the Employer by a modification to the designs, specifications or other conditions, he may, in addition to his Bid to be submitted in strict compliance with the Bidding Documents, submit any alternative proposal(s) containing (a) relevant design calculations; (b) technical specifications; (c) proposed construction methodology; and (d) any other relevant details/conditions, provided always that the total sum entered on the Letter of Bid shall be that which represents complete compliance with the Bidding Documents.
- 17.3 Alternative proposal(s), if any, of the Bidder having submitted most advantageous Bid only may be considered by the Employer as the basis for the award of Contract to such Bidder.

**IB.18 Format and  
Signing of Bid**

- 18.1 Bidders are particularly directed that the amount entered on the Letter of Bid shall be for performing the Contract strictly in accordance with the Bidding Documents.
- 18.2 All Schedules to Bid are to be properly completed and signed.
- 18.3 No alteration is to be made in the Letter of Bid nor in the Schedules thereto except in filling up the blanks as directed. If any such alterations be made or if these instructions be not fully complied with, the Bid may be rejected.
- 18.4 Each Bidder shall prepare by filling in the forms completely and without alterations one (1) original and number of copies, specified in the **Bidding Data**, of the documents comprising the Bid as described in Clause IB.12 and clearly mark them “ORIGINAL” and “COPY” as appropriate. In the event of discrepancy between them, the original shall prevail.  
  
The Bidder shall also provide complete searchable PDF versions as well as Word, Excel, etc., versions of the Bid if so required in the **Bidding Data**.
- 18.5 The original of the Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder pursuant to Sub-Clause IB.12.1(d) hereof. All pages of the Bid shall be initialed and stamped by the person or persons signing the bid.
- 18.6 The Bid shall contain no alterations, omissions or additions, except to comply with instructions issued by the Employer, or as are necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.
- 18.7 Bidders shall indicate in the space provided in the Letter of Bid their full and proper addresses at which notices may be legally served on them and to which all correspondence in connection with their bids and the Contract is to be sent.
- 18.8 Bidders should retain a copy of the Bidding Documents and the Bid as their file copy.
- 18.9 All documents executed outside Pakistan required to be submitted with the Bid must be certified by Pakistani Embassy in the respective country(ies).

#### **D. SUBMISSION OF BIDS**

##### **IB.19 Sealing and Marking of Bids**

- 19.1 Each Bidder shall submit his Bid as under:
- (a) ORIGINAL and each copy of the Bid shall be separately sealed and put in separate envelopes and marked as such.
  - (b) The envelopes containing the ORIGINAL and copies will be put in one sealed envelope and addressed /identified as given in Sub Clause IB.19.2 hereof.
- 19.2 The inner and outer envelopes shall:
- (a) be addressed to the Employer at the address provided in the **Bidding Data**;
  - (b) bear the specific identification of this bidding process as specified in the **Bidding Data**; and
  - (c) Provide a warning not to open before the time and date for bid opening, as specified in the **Bidding Data**.
- 19.3 In addition to the identification required in Sub-Clause IB.19.2 hereof, the inner envelope shall indicate the name and address of the Bidder to enable the Bid to be returned unopened in case it is declared “late” pursuant to Clause IB.21.
- 19.4 If the outer envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

##### **IB.20 Deadline for Submission of Bids**

- 20.1
- (a) Bids must be received by the Employer at the address specified no later than the time and date stipulated in the **Bidding Data**.
  - (b) Bids with charges payable will not be accepted, nor will arrangements be undertaken to collect the bids from any delivery point other than that specified above. Bidders shall bear all expenses incurred in the preparation and delivery of Bids. No claims will be entertained for refund of such expenses.
  - (c) Where delivery of a Bid is by mail and the Bidder wishes to receive an acknowledgment of receipt of such Bid, he shall make a request for such acknowledgment in a separate letter attached to but not included in the sealed Bid envelope.
  - (d) Upon request, acknowledgment of receipt of Bids will be provided to those making delivery in person or by messenger.
- 20.2 The Employer may, at his discretion, extend the deadline for submission of Bids by issuing an amendment in accordance with Clause IB.9, in which case all rights and obligations of the Employer and the Bidders previously subject to the original deadline will thereafter be subject to the deadline as extended.



**IB.21 Late Bids**

- 21.1 (a) Any Bid received by the Employer after the deadline for submission of bids prescribed in Clause IB.20 shall be declared late, rejected and returned unopened to such Bidder.
- (b) Delays in the mail, delays of person in transit, or delivery of a Bid to the wrong office shall not be accepted as an excuse for failure to deliver a Bid at the proper place and time. It shall be the Bidder's responsibility to determine the manner in which timely delivery of his Bid will be accomplished either in person, by messenger or by mail.

**IB.22 Modification, Substitution and Withdrawal of Bids**

- 22.1 Any Bidder may modify, substitute or withdraw his Bid after Bid submission provided that the modification, substitution or written notice of withdrawal is received by the Employer prior to the deadline for submission of bids.
- 22.2 The modification, substitution, or notice for withdrawal of any Bid shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause IB.19 with the outer and inner envelopes additionally marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL" as appropriate.
- 22.3 No Bid may be modified by a Bidder after the deadline for submission of Bids except in accordance with Sub Clauses IB.22.1 and 28.2.
- 22.4 Withdrawal of a Bid during the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified in the Letter of Bid may result in forfeiture of the Bid security in pursuance to Clause IB.16.

**E. BID OPENING AND EVALUATION**

**IB.23 Bid Opening**

- 23.1 The Employer will open the Bids including withdrawals, substitution and modifications made pursuant to Clause IB.22, in the presence of Bidders' representatives who choose to attend, at the time, date and location stipulated in the **Bidding Data**. The Bidders' representatives who are present shall sign a register evidencing their attendance.
- 23.2 Envelopes marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL" shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to Clause IB.22 shall not be opened. Only bids that are opened and read out at Bid opening shall be considered further.
- 23.3 The Bidder's name, total Bid Price and price of any alternative proposal(s), any discounts, Bid modifications, substitution and withdrawals, the presence or absence of Bid security, and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening of Bids. Only discounts and alternative proposals

read out at Bid opening shall be considered for evaluation. The Letter of Bid and the Summary Bill of Quantities are to be initialed by representative(s) of the Employer attending Bid opening. The Employer shall neither discuss the merits of any Bid nor reject any Bid (except for late Bids, in accordance with Sub-Clause IB 21.1).

- 23.4 The Employer shall prepare minutes of the Bid opening, including the information disclosed to those present in accordance with the Sub-Clause IB.23.3.

**IB.24 Process to be  
Confidential**

- 24.1 Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of Contract shall not be disclosed to Bidders or any other person not officially concerned with such process before the announcement of the result of Bid evaluation in the form of final evaluation report giving justification for acceptance or rejection of Bids which shall be done at least fifteen (15) days prior to award of Contract. The announcement to all Bidders will include table(s) comprising read out prices, discounted prices, price adjustments made, final evaluated prices and recommendations against all the Bids evaluated. Any effort by a Bidder to influence the Employer's processing of Bids or Contract award decisions may result in the rejection of such Bidder's Bid. Whereas any Bidder feeling aggrieved may lodge a written complaint not later than five (5) days after the announcement of the final evaluation report.

**IB.25 Clarification of  
Bids**

- 25.1 To assist in the examination, evaluation and comparison of Bids, the Employer may, at his discretion, ask any Bidder for clarification of his Bid, including breakdowns of unit rates and lump sum prices. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The request for clarification and the response shall be in writing. No change in the price or substance of the Bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids in accordance with Clause IB.28.
- 25.2 The Employer may, at his discretion, ask any Bidder for confirmation/submission of missing information to clarify its Bid. However, the Employer does not have an obligation to request any additional information or clarification with respect to missing or deficient information in a Bid. The Employer may reject any Bid as non-responsive if found materially incomplete, obscure, irregular or omitting any material information required to be submitted in accordance with the Bidding Documents.
- 25.3 If a Bidder does not provide clarifications of its Bid by the date and time set reasonably (not less than seven (7) days) in the Employer's request for clarification, the Employer may proceed with the evaluation based on the informationsubmitted in the Bid without waiting for the Bidder's response.

- IB.26 Examination of Bids and Determination of Responsiveness**
- 26.1 Prior to the comparison of Bids, the Employer will determine whether each Bid is substantially responsive to the requirements of the Bidding Documents.
  - 26.2 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in Sub- Clause IB.12.
  - 26.3 A substantially responsive Bid is one which meets the requirements of the Bidding Documents, without material deviation, reservation or omission. A material deviation, reservation or omission is one that,
    - (a) if accepted, would:
      - (i) affect in any substantial way the scope, quality or performance of the Works; or
      - (ii) limit in any substantial way, inconsistent with the Bidding Documents, the Employer's rights or the Bidder's obligations under the proposed Contract; or
    - (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.
  - 26.4 During the evaluation of Bids, the following definitions apply:
    - (a) "Deviation" is a departure from the requirements specified in the Bidding Documents;
    - (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents; and
    - (c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Documents.
  - 26.5 The Employer shall examine the technical aspects of the Bid submitted in accordance with Sub-Clause IB.12.1(f), in particular, to confirm that all requirements stated in Specifications have been met without any material deviation, reservation or omission.
  - 26.6 If a Bid is not substantially responsive to the requirements of the Bidding Documents, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation, reservation or omission.

**IB.27 Nonmaterial  
Nonconformities**

- 27.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid.
- 27.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or

		documentation on such nonconformities 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.
	27.3	Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component, by adding the average price of the item or component quoted by other lowest two evaluated substantially responsive Bidders. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Employer shall use a suitable CSR, adjusted to the date 28 days earlier to the Bid submission date or its best assessment.
<b>IB.28 Correction of Arithmetic Errors</b>	28.1	<p>Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:</p> <ul style="list-style-type: none"> <li>(a) where there is a discrepancy between the amounts in figures and in words, the amount in words will govern.</li> <li>(b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of the Employer there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern and the unit rate will be corrected.</li> <li>(c) 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.</li> </ul>
	28.2	The amount stated in the Letter of Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected Bid Price, his Bid will be rejected, and the Bid security shall be forfeited in accordance with Sub Clause IB.16.6(b) hereof.
<b>IB.29 Evaluation and Comparison of Bids</b>	29.1	The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause IB.26. The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.
	29.2	<p>In evaluating and comparing the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:</p> <ul style="list-style-type: none"> <li>(a) making any correction for arithmetic errors pursuant to Clause IB.28;</li> </ul>

- (b) price adjustment due to discounts offered in accordance with Sub-Clause IB.23.3;
  - (c) excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including competitively priced daywork;
  - (d) making an appropriate price adjustment for any quantifiable nonmaterial nonconformities in accordance with Sub-Clause IB.27.3; and
  - (e) the additional evaluation factors are specified in Section Evaluation Criteria and Qualification Updating Forms.
- 29.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bids' comparison.

**IB.30 Abnormally  
Low Bids**

- 30.1 If the Bid Price of the successful Bidder is more than 15% below the lower of the Employer's estimate of the cost of work to be performed under the Contract or average of other lowest two evaluated substantially responsive Bids, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Employer may require an additional Performance Security by 10% of the difference of the Bid Price as determined hereinabove up to issuance of Taking Over Certificate at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract. The Bids having Bid Price lower than 25% shall be liable to be rejected.

**IB.31 Unbalanced or  
Front Loaded  
Bids**

- 31.1 If the Bid of the successful Bidder is seriously unbalanced (Front Loaded) in relation to the average of other evaluated substantially responsive Bids, the Employer during execution of contract may pay against measured quantities of significantly higher quoted line item(s) rate(s) with respect to same line item(s) rate(s) determined from the average of other lowest two evaluated substantially responsive Bids as instructed by the Engineer. The balance line item(s) rate(s) may be paid against the same measured quantities at the time of issuance of Taking Over Certificate or as instructed by the Engineer.

## **F. AWARD OF CONTRACT**

- |  |  |
|--|--|
| <b>IB.32 Award Criteria</b>                                | 32.1 Subject to Clauses IB.33 and IB.39, the Employer will award the Contract to the Bidder who's Bid has been determined as most advantageous Bid (substantially responsive to requirements of the Bidding Documents with the lowest evaluated Bid Price).  |
| <b>IB.33 Employer's Right to Annul the Bidding Process</b> | <p>33.1 Notwithstanding Clause IB.32, the Employer reserves the right to annul the bidding process and reject all Bids, at any time prior to award of Contract, without thereby incurring any liability to the affected Bidders or any obligation.</p> <p>The Employer shall upon request communicate to any Bidder who submitted a Bid, the grounds for its rejection of all Bids but is not required to justify those grounds. Rejection of all Bids shall be notified to all Bidders promptly.</p>  |
| <b>IB.34 Notification of Award</b>                         | <p>34.1 Prior to expiration of the period of Bid validity prescribed by the Employer, the Employer will notify the successful Bidder in writing ("Letter of Acceptance") that his Bid has been accepted. This letter shall name the sum which the Employer will pay the Contractor in consideration of the execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called the "Accepted Contract Amount").</p> <p>The Letter of Acceptance will also state the remedies with respect to Sub-Clauses IB.30 &amp; IB.31 if applicable.</p> <p>34.2 No negotiation with the Bidder having submitted most advantageous Bid or any other Bidder shall be permitted, however, Employer may have clarification meetings before issuing Letter of Acceptance to get clarified any item in the Bid evaluation report.</p> <p>34.3 The Letter of Acceptance/ notification of award and its acknowledgement/acceptance by the Bidder will constitute the formation of the Contract, binding the Employer and the Bidder till signing of the formal Contract Agreement.</p> <p>34.4 Upon furnishing by the successful Bidder of a Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful and return their Bid securities in accordance with Sub-Clause IB.16.5.</p> |



**IB.35 Performance  
Security**

- 35.1 The successful Bidder shall furnish to the Employer a Performance Security in the form and the amount stipulated in the Conditions of Contract and additional Performance Security if applicable under IB.30 as stated in the Letter of Acceptance, within a period of 28 days after the receipt of Letter of Acceptance.
- 35.2 Failure of the successful Bidder to comply with the requirements of Sub Clause IB.35.1 or Clauses IB.36 or IB.37 shall constitute sufficient grounds for the annulment of the award, forfeiture of the Bid security and to award the Contract to the Bidder having submitted next advantageous Bid.

**IB.36 Signing of  
Contract  
Agreement**

- 36.1 Within 14 days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the Employer will notify the successful Bidder to depute its representative with appropriate Power of Attorney to sign the Contract Agreement in the form provided in the Bidding Documents, incorporating all agreements between the parties.

- 36.2 The formal Agreement between the Employer and the successful Bidder shall be executed within 14 days of the receipt of the above stated notification by the successful Bidder from the Employer.
- IB.37 Integrity Pact** 37.1 The Bidder shall sign and stamp the Integrity Pact provided at Schedule-J to Bid in the Bidding Documents for all Federal Government procurement contracts exceeding PKR ten million. Failure to provide such Integrity Pact shall make the Bidder non-responsive.
- IB.38 Instructions not Part of Contract** 38.1 Bids shall be prepared and submitted in accordance with the Instructions to Bidders which are provided to assist the Bidders in preparing Bids but do not constitute part of the Contract.
- IB.39 Corrupt and Fraudulent Practices** 39.1 The Employer will reject a Bid if it determines that the Bidder recommended for award, or any of its personnel, or its agents, or its sub-contractors, service providers, suppliers and/or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract under this bidding.
- 39.2 The Employer will blacklist and hence forthwith debar a Constructor or individual, at any time, in accordance with the prevailing Public Procurement Rules 2004.

## **BIDDING DATA**

## BIDDING DATA

The following specific data for the Works to be bided shall complement, amend, or supplement the provisions in the Instructions to Bidders. Wherever there is a conflict, the provisions herein shall prevail over those in the Instructions to Bidders.

IB Clause Reference	Bidding Data
1.1	<b>Name and address of the Procuring Agency:</b> Sindh Madressatul Islam University, Aiwan-e-Tijarat Road, Behind Habib Bank Plaza, Karachi
1.1	<b>Name of the Project and Summary of the Works:</b> Development of Sindh Madressatul Islam University (SMIU) Campus at Education City Malir, Karachi – Supply, Installation, Testing & Commissioning of Off-Grid Solar Power System for Seven (07) Number Buildings
1.2	<b>Time for Completion for the Works:</b> 180 days (06 Months)
2.1	<b>Name of the Borrower/Source of Financing/Funding Agency:</b> Federal Government (HEC) PSDP funds.
3.1	Foreign Constructors are not allowed
8.1	<b>Time limit for clarification:</b> Seven (7) calendar days prior to the Date of Opening of Tender.
8.3	<b>Pre-bidding Meeting:</b> Pre-bid meeting shall be held at Site Office, SMIU Malir Campus, Education City, Malir, Karachi on <b>Wednesday, 30<sup>th</sup> October 2024</b> at 12:30 P.M.
9.3	<b>Number of Days:</b> Five (05)
11.1	<b>Bid Language:</b> English
14.1	Bidders to quote entirely in Pak. Rupees
15.1	<b>Period of Bid validity:</b> Bid shall be valid for 90 days from the date of opening of bid.
16.1	<b>Amount of Bid Security:</b> Bid Security in form of Call Deposit / Pay Order/ Demand Draft/ Bank Guarantee issued by a Scheduled Bank in Pakistan, of the amount at 2% of the Bid Price in favor of Sindh Madressatul Islam University which shall remain Valid for a period of 28 days beyond the validity period of bids mentioned in para 15.1 above. <b>List of Insurance Companies:</b> (Not Applicable)
17.1	<b>Alternative Proposal(s)</b> by the Bidder shall not be considered.
18.4	<b>Number of copies of the Bid to be completed and returned:</b> Each Bidder shall prepare by filling in the forms completely and without alterations. The bid, properly filled in, must be submitted <b>ONLY through e-Pak Acquisition &amp; Disposal System (EPADS)</b> at or before deadline mentioned in the invitation to bid. The bid will be opened promptly thereafter in public and in the presence of bidders' representatives who choose to attend in the opening at the Conference Room No. 02, first floor Main building at Sindh Madressatul Islam University, Aiwan-e- Tijarat Road Behind Habib Bank Plaza, Karachi.

<b>19.1</b>	<p><b>Submission of Bids:</b> The original Technical and Financial bid, properly filled in, must be submitted <b>ONLY through e-Pak Acquisition &amp; Disposal System (EPADS)</b> at or before deadline as mentioned in invitation to bids. The Technical bids will be opened promptly thereafter in public and in the presence of bidders' representatives who choose to attend in the opening at the Conference Room No. 02, first floor Main building at Sindh Madressatul Islam University, Aiwan-e- Tijarat Road Behind Habib Bank Plaza, Karachi.</p>
<b>19.2 (a)</b>	<p><b>Procuring Agency's address for the purpose of submission:</b> Bids must be submitted <b>ONLY</b> through e-Pak Acquisition &amp; Disposal System (EPADS) at or before deadline as mentioned in invitation to bids</p>
<b>19.2 (b)</b>	<p><b>Name of the Contract:</b> Development of Sindh Madressatul Islam University (SMIU) Campus at Education City Malir, Karachi – Supply, Installation, Testing &amp; Commissioning of Off-Grid Solar Power System for Seven (07) Number Buildings</p>
<b>19.2 (c)</b>	<p><b>Time and date for Bid Opening:</b> Bids shall be opened at 03:30 P.M on <b>Monday 11th November 2024</b> in the <b>Conference Room No. 02, first floor Main building at Sindh Madressatul Islam University, Aiwan-e- Tijarat Road Behind Habib Bank Plaza, Karachi</b></p>
<b>19.5</b>	<p>The Bidder shall submit with its <b>Technical Bid</b> the following documents</p> <ul style="list-style-type: none"> <li>(a) Original Bid Security as per 16.1 and 16.2</li> <li>(b) Conditions of Contract</li> <li>(c) Specification- (Part A – Specific Provisions)</li> <li>(d) Proposed Construction Schedule (appendix –C-1)</li> <li>(e) Method of Performing the Work (appendix –D-1)</li> <li>(f) Availability of Critical Equipment (appendix –E-1 to 3)</li> <li>(g) Construction Camp and Housing Facilities (appendix –I-1)</li> <li>(h) List of Sub-contractors (as required) (appendix –G-1)</li> <li>(i) Organization Chart for Supervisory Staff (appendix –F-1)</li> <li>(j) Integrity Pact (appendix –J-1)</li> <li>(k) Annexures A, B, C</li> </ul> <p>The Bidder shall submit with its <b>Financial (Price) Bid</b> the following documents:</p> <ul style="list-style-type: none"> <li>(l) Letter of Price Bid</li> <li>(m) Schedule of Adjustment data (appendix –A-1 &amp; A-2)</li> <li>(n) Bill of Quantities (appendix –B-1 &amp; B-2)</li> <li>(o) Estimated Progress Payments (appendix –H-1)</li> </ul>
<b>20.1 (A)</b>	<p><b>Deadline for submission of Bids:</b> Bids shall be received at Procuring Agency's Address mentioned in para 19.2(a) above not later than 02:30 P.M on <b>Monday 11th November 2024</b>.</p>
<b>23.1</b>	<p><b>Venue, time, and date of opening:</b> Bids shall be opened at 03:30 P.M on <b>Monday 11th November 2024</b> in the <b>Conference Room No. 02, first floor Main building at Sindh Madressatul Islam University, Aiwan-e- Tijarat Road Behind Habib Bank Plaza, Karachi</b></p>

# **EVALUATION CRITERIA AND QUALIFICATION UPDATING FORMS**

**EVALUATION  
CRITERIA AND  
QUALIFICATION  
UPDATING FORMS**

**B. General**

This Section contains Eligibility and Qualification Criteria that the Employer shall use to evaluate Bids and qualify Bidders in accordance with Clause IB.26 of Instructions to Bidders. The Bidder shall provide all the information requested in the relevant forms contained in Bidder's Qualification Updating Forms provided herein.

The information provided in the forms shall be substantiated with valid documentary evidence; otherwise the requirement will not be considered as complied.

Wherever a Bidder is required to state a monetary amount, Bidders shall indicate the PKR equivalent using the rate of exchange determined as follows:

- For financial data - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.

Exchange rates shall be taken from the publicly available source identified in the Sub-Clause IB.14.2. Any error in determining the exchange rates in the Bid may be corrected by the Employer.

**C. Domestic Preference**

A margin of preference of 7.5% (seven and a half percent) shall be granted to domestic Bidders (in case of JV, all partners are Pakistani Constructors), in accordance with and subject to the following provisions:

- (c) The Bidders applying for such preference shall provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Employer, a Bidder qualifies for a domestic preference.**
- (d) After Bids have been received and reviewed by the Employer, responsive Bids shall be classified into the following groups:**
  - Group A: Bids offered by domestic Bidders eligible for the preference.**
  - Group B: Bids offered by other Bidders.**

All evaluated Bids in each group shall, as a first evaluation step, be compared to determine the lowest Bid, and the lowest evaluated Bids in each group shall be further compared with each other. If, as a result of this comparison, a Bid from Group A is the lowest, it shall be selected for the award. If a Bid from Group B is the lowest, as a second evaluation step, all Bids from Group B shall then be further compared with the lowest evaluated Bid from Group A. For the purpose of this further comparison only, an amount equal to 7.5% (seven and a half percent) of the respective Bid Price corrected for arithmetical errors, including unconditional discounts and excluding Provisional Sums and the cost of dayworks, if any, shall be added to the evaluated price offered in each Bid from Group B. If the Bid from Group A is the lowest, it shall be selected for award. If not, the lowest evaluated Bid from Group B based on the first evaluation step shall be selected.

## **D. Evaluation Criteria**

### **1. The Bidders must meet all the mandatory criteria**

#### **1.1 Mandatory Provisions/Eligibility**

<b>#</b>	<b>Description</b>	<b>Yes/No</b>
(i)	<b>Registration with PEC:</b> Bidders must possess valid registration certificate of PEC in the category <b>C4</b> or Above Single Entity: Must Meet Joint Venture: N/A	If "Yes" the applicant will be Eligible for further evaluation for qualification.
(ii)	<b>Registration with Revenue Board:</b> Bidders must possess valid registration certificate from FBR and Sindh Revenue Board. Single Entity: Must Meet Joint Venture: N/A	If "Yes" where applicable the applicant will be Eligible for further evaluation for qualification
(iii)	<b>PEC relevant codes:</b> PEC (Relevant Codes as per nomenclature of works) Bidders must possess these codes from PEC <b>Electrical:</b> <ul style="list-style-type: none"> <li>• <b>EE04</b></li> <li>• <b>EE11(vi) (Solar Installation)</b></li> </ul> Joint Venture: N/A	If "Yes" the applicant will be Eligible for further evaluation for qualification.
(iv)	<b>Firm registration from SECP:</b> Applicable for both Single Entity & Joint Venture Firms. Not applicable for bidders which are Sole Proprietorship or Partnership Firms. Partnership Firms must submit their Partnership Deed.	If "Yes" the applicant will be Eligible for further evaluation for qualification.



## 2. Evaluation/Qualification Criteria:

#	Category	Weightage/Marks
(i)	Financial Soundness	30
(ii)	Work Experience	40
(iii)	Key Personnel	15
(iv)	Plant & Equipment	15
	<b>Total</b>	<b>100</b>

For Technical Qualification, Passing Marks 65 out of 100. Additionally, each applicant has to score a minimum of 50% in each category.

Similarly, for firms in Joint Venture (J.V) to qualify, following are minimum qualification requirements:-

- i) Lead partner shall have to score a minimum of 65% of all qualifying criteria given above.
- ii) Each of the partners in J.V shall score not less than 40% of all qualifying criteria given above.

### 2.1 Financial Soundness:

Sr. No.	Description	Maximum Marks
i)	Available Bank Credit Line (100 Million or Above) Provide Original Bank Credit Line Letter duly certified by regional Branch of Bank.	5
ii)	Average Working Capital in last 5 years (150 Million or above) Provide Firm Audited Financial Reports for the last 5 years.	10
iii)	Average Annual Financial Turnover in last 5 year – (125 Million or above) Provide Firm Audited Financial Reports for the last 5 years.	5
iv)	Litigation History where decision went against the Firm. (Affidavit on Rs.100 Stamp Paper) In case of JV both partners must meet the criteria	5
v)	Blacklisting from any Agency (Affidavit on Rs.100 Stamp Paper) In case of JV both partners must meet the criteria	5
<b>SUB-TOTAL:</b>		<b>30</b>

## 2.1 Work Experience:

SR. NO.	DESCRIPTION	MAXIMUM	POINTS
a)	<b>Similar nature of works Completed in last 5 years:</b> 1 Project (100 Million or above) = 5 Points Or 2 Projects (62.5 Million or above) = 5 Points (Provide Work Orders / Completion Certificate)	20	5
b)	<b>Similar nature of works in Hand:</b> 1 Project (100 Million or above) = 5 Points Or 2 Projects (62.5 Million or above) = 5 Points (Provide Work Orders)	15	5
d)	<b>Status of enlistment with Government Organizations and other agencies.</b> 1 Enlistment x 1 Point	5	1
<b>SUB-TOTAL:</b>		<b>40</b>	

## 2.2 Key Personnel:

SR. NO.	DESCRIPTION	MAXIMUM	POINTS
i)	<b>Engineers Registered with PEC</b> a. B.Sc Engr (Electrical/Electronics) with 5+ years' experience (2 marks for one engineer) b. B.Sc Engr (Mechanical) with 3+ years' experience (1 mark for one engineer)  Marks for Experience less than specified will be considered on proportionate basis for PE ( Between 6-9 years) & for RE (between 1-4 years)	9	2 1
ii)	<b>Diploma Engineers in Employment of the Firm</b> a. Site Supervisor (DAE Electrical/Mechanical) with 5+ years' experience (1 mark for DAE Electrical) b. Solar PV Technician with 5+ years' experience (1 mark for one technician)  Marks for experience less than specified years will be considered on proportionate basis.	6	1 1
<b>SUB-TOTAL:</b>		<b>15</b>	

Note:

- Bidders are supposed to possess Qualification Certificates i.e PEC Certificate and Diploma Certificates with their CV.

### 2.3 Plant & Equipment:

S.NO	Equipment Type & Characteristics	Min. Nr. required	POINTS
1	Drill Machine (Cordless)	02 Set	2
2	Impact Driver	02 No	1
3	Torque Wrench	02 No	1
4	Cable Crimper	02 No	1
5	Insulation Resistance Tester	01 No	1
6	Multimeter (Digital)	04 No	2
7	Clamp Meter (AC/DC)	02 No	1
8	Solar Power Meter	03 No	1
9	IV Curve Tracer	01 No	1
10	PV String Analyzer	02 No	1
11	Thermal Camera	02 No	1
12	Lifting Hoists/Cranes	01 No	1
13	Suction Cup Lifter for Solar Panels	02 No	1
<b>SUB-TOTAL:</b>			<b>15</b>

Note:

1. The marks mentioned in above table are for owned equipment.
2. Total equipment available with the bidder is to be listed along with its current mobilization on on-going projects. The Bidder shall provide further details of proposed items of equipment using the relevant Form provided hereunder.
3. The bidder must submit ownership documents for equipment own by it.
4. For Leased/Rental equipment, the bidder must submit lease/rental agreement(s).

For leased/rental equipment bidder will get 50% marks.

## **Bidders Qualification Updating Forms**

To establish its qualifications to perform the contract in accordance with Section (Evaluation Criteria and Qualification Updating Forms) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder.

## Form ELI -1.1

### Bidder Information Form

Date: \_\_\_\_\_  
Bid Reference No. (if any) and title: \_\_\_\_\_  
Page \_\_\_\_\_ of \_\_\_\_\_ pages

Bidder's name
In case of Joint Venture (JV), name of each member:
Bidder's country of registration: <i>[indicate country of Constitution]</i>
Bidder's year of incorporation:
Bidder's legal address [in country of registration]:
Bidder's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents, in case of JV, JV agreement, in accordance with Sub-Clause IB 3.1.

**Form ELI -1.2**

**Bidder's JV Information Form  
(to be completed for each member of Bidder's JV)**

Date: \_\_\_\_\_  
Bid Reference No. (if any) and title: \_\_\_\_\_  
Page \_\_\_\_\_ of \_\_\_\_\_ pages

Bidder's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____

## Form CON – 1

### Pending

### Litigation

Bidder's Name: \_\_\_\_\_

Date: \_\_\_\_\_ JV

Member's Name \_\_\_\_\_

Bid Reference No. (if any) and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

Pending Litigation, in accordance with Eligibility and Qualification Criteria			
5 No pending litigation in accordance with Eligibility and Qualification Criteria, Sub-Factor 2.1.			
6 Pending litigation in accordance with Eligibility and Qualification Criteria, Sub-Factor 2.1 as indicated below.			
Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Eq. PKR (exchange rate)
		Contract Identification: _____ Name of Employer: _____ Address of Employer: _____ Matter in dispute: _____ Party who initiated the dispute: _____  Status of dispute: _____	
		Contract Identification: Name of Employer: Address of Employer: Matter in dispute: Party who initiated the dispute: Status of dispute:	

### **Form FIN – 3.1: Financial Situation and Performance**

Bidder's Name: \_\_\_\_\_

Date: \_\_\_\_\_

JV Member's Name \_\_\_\_\_

#### **7 Financial data**

Bid Reference No. (if any) and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

<b>Type of Financial information in (currency)</b>	<b>Historic information for last year, (amount in currency, currency, exchange rate*, Eq. PKR)</b>
<b>Statement of Financial Position (Information from Balance Sheet)</b>	
Total Assets (TA)	
Total Liabilities (TL)	
Total Equity/Net Worth (NW)	
Current Assets (CA)	
Current Liabilities (CL)	
Working Capital (WC)	
<b>Information from Income Statement</b>	
Total Revenue (TR)	
Profits Before Taxes (PBT)	
<b>Cash Flow Information</b>	
Cash Flow from Operating Activities	

\*Refer to IB 14.2 for the exchange rate

#### **8 Financial documents**

The Bidder and its parties shall provide copies of financial statements for last year pursuant to Eligibility and Qualification Criteria, Sub-factor 3.1. The financial statements shall:

- 8.1 reflect the financial situation of the Bidder or in case of JV member, and not an affiliated entity (such as parent company or group member).**
- 8.2 be independently audited or certified in accordance with local legislation.**
- 8.3 be complete, including all notes to the financial statements.**
- 8.4 correspond to accounting periods already completed and audited.**

Attached are copies of financial statements<sup>1</sup> for the last year required above; and complying with the requirements

<sup>1</sup> If the most recent set of financial statements is for a period earlier than 12 months from the date of bid, the reason for this should be justified.



**Form FIN – 3.2:**

**Financial Resources**

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as specified in Eligibility and Qualification Criteria.

No.	Source of financing	Amount (Eq. PKR)
1		
2		
3		

### Form FIN – 3.3:

#### Current Contract Commitments / Works in Progress

Bidders and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Current Contract Commitments					
No.	Name of Contract	Employer's Contact Address, Tel, Fax	Value of Outstanding Work [Current Eq. PKR]	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [Eq. PKR /month]
1					
2					
3					
4					
5					

# **LETTER OF BID AND SCHEDULES TO BID**

**LETTER OF BID**

Bid Reference No. \_\_\_\_\_  
[Name of Contract/ Works]

To: \_\_\_\_\_  
\_\_\_\_\_

Gentleman,

- 9 Having examined the Bidding Documents including Instructions to Bidders, Bidding Data, Conditions of Contract, Specifications, Schedules to Bid including Bill of Quantities, Drawings and Addenda Nos. \_\_\_\_\_ for the execution of the above-named Works, we, the undersigned, offer to execute and complete such Works and remedy any defects therein in conformity with the said Bidding Documents and**

Addenda for the sum of Equivalent PKR \_\_\_\_\_ (Eq. Pak Rupees \_\_\_\_\_) or such other sum as may be ascertained in accordance with the said conditions.

- 10 We meet the eligibility requirements in accordance with IB.3.**
- 11 We, including any Subcontractors for any part of the Contract, are not debarred/blacklisted by the Employer, any Government/Semi Government/Public Department in Pakistan or foreign country, international organizations or other foreign institutions.**
- 12 Our subcontractors or suppliers for any part of the Contract, if any, shall have nationalities from eligible countries, in accordance with IB.4.4.**
- 13 We understand that all the Schedules attached hereto form part of this Bid.**
- 14 As security for due performance of the undertakings and obligations of this Bid, we submit**  
herewith a Bid Security in the amount of PKR \_\_\_\_\_ (Pak. Rupees. \_\_\_\_\_) drawn in your favour or made payable to you and valid for a period of \_\_\_\_\_ days beginning from the date Bids are opened.
- 15 We undertake, if our Bid is accepted, to commence the Works and to complete the whole of the Works comprised in the Contract within the time stated in Contract Data.**
- 16 We agree to abide by this Bid for the period of \_\_\_\_\_ days, inclusive of 14 days beyond Bid validity period (as mentioned at Sr. No. 6 above) and it shall remain binding upon us and may be accepted at any time before the expiration of that period.**
- 17 Unless and until a formal Agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.**
- 18 We do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other Bidder for the Works.**
- 19 We understand that you are not bound to accept the lowest or any Bid you may receive.**
- 20 We undertake that all the information and documents submitted with the Bid are genuine, and in case of incorrect information of fake documents we shall be liable for punitive action under the Applicable Law.**

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

Signature: \_\_\_\_\_

in the capacity of \_\_\_\_\_ duly authorized to sign Bids for and on behalf of

\_\_\_\_\_  
(Name of Bidder in Block Capitals)  
(Seal)

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Witness:

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Address. \_\_\_\_\_

Occupation \_\_\_\_\_

## SCHEDULE OF ADJUSTMENT DATA

### Schedule of Cost Indexation

*[The Employer is to engage a professional with experience in construction costs and the inflationary effect on construction costs when preparing the contents of the Schedule of Cost Indexation. In the case of very large and/or complex works contracts, it may be necessary to specify several families of price adjustment formulae corresponding to the different works involved.]*

*[The formulae for price adjustment shall be of the following general type:]*

$$P_n = a + b \frac{L_n}{L_o} + c \frac{E_n}{E_o} + d \frac{M_n}{M_o} + \dots$$

where:

“P<sub>n</sub>” is the adjustment multiplier to be applied to the estimated Contract value in the relevant currency of the work carried out in period “n”, this period being a month;

“a” is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;

“b”, “c”, “d”, ... are coefficients representing the estimated proportion of each cost element related to the execution of the Works as stated in the relevant table of adjustment data; such tabulated cost elements may be indicative of resources such as labour, equipment and materials;

“L<sub>n</sub>”, “E<sub>n</sub>”, “M<sub>n</sub>”, ... are the current cost indices or reference prices for period “n”, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the date 49 days prior to the last day of the period (to which the particular Payment Certificate relates); and

“L<sub>o</sub>”, “E<sub>o</sub>”, “M<sub>o</sub>”, ... are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.

The weightings (coefficients) for each of the factors of cost stated in the following table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variation(s).

If the currency in which the Contract price is expressed is different from the currency of the country of origin of the indices, a correction factor will be applied to avoid incorrect adjustments of the Contract price. The correction factor shall be:  $Z_0 / Z_1$ , where,

$Z_0$  = the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price on the Base date, and

$Z_1$  = the number of units of currency of the origin of the indices which equal to one unit of the currency of the Contract Price on the Date of Adjustment.

**SCHEDULE OF ADJUSTMENT DATA**

**Table I. Local Currency (LC) For Bill Nos. \_\_\_\_\_**

*[In the Table below, the Bidder shall (a) indicate amount of local currency payment, and the Employer shall (b) enter the Index description and source of indices for the different elements of cost, and (c) derive weightings for local currency payment including nonadjustable fixed portion. PEC Standard Procedure and Formula for Price Adjustment (Second Edition), May, 2022 as amended time to time shall be applied for preparation of the following Table.]*

Cost Element	Description	Weightages	Applicable index
1	2	3	4
(i)	Fixed Portion		
(ii)	Local Labour**		
(iii)	Cement – in bags		
(iv)	Reinforcing Steel		
(v)	High Speed Diesel (HSD)		
(vi)	Bajri		
(vii)	Tiles		
(viii)	Electrical Cables		
	<b>Total</b>	<b>1.00</b>	

**BILL OF QUANTITIES**

**9 Preamble:**

- 9.3 The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specifications and Drawings.**
- 9.4 The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work executed and measured by the Contractor and verified by the Engineer and valued at the rates and prices as given in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix as per the Contract.**
- 9.5 The rates and prices as given in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract include all costs of Contractor's plant, labour, supervision, materials, execution, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract. Furthermore, all duties, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to deadline for submission of Bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.**
- 9.6 A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of items against which the Contractor will have failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.**
- 9.7 The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of the Works, or the same shall be determined by the Engineer in accordance with Clause 13, General Conditions.**
- 9.8 General directions and description of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Bidding Documents shall be made before entering prices against each item in the Bill of Quantities.**
- 9.9 Provisional sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with Sub- Clause 13.4 of General Conditions of Contract.**



**9.10      The following abbreviations for units have been used in Bill of Quantities:**

<b>Units</b>	<b>Abbreviations</b>
Cubic Meter	= cum
Square Meter	= sqm
Kilogram	= kg
Provisional Sum	= PS
Lump-Sum	= LS

**C-1**  
**Schedule-C to Bid**

**CONSTRUCTIONSCHEDULE**

Pursuant to Sub-Clause 8.3 of the General Conditions, the whole of the Works, and each Section (if any), shall be completed within the Time for Completion for the Works or Section (as the case may be) stated as hereunder and mentioned in Contract Data:

Description	Time for Completion (days)
a) Whole Works	
b) Section A	
c) Section B	
d) _____	
e) _____	

*[The Bidder shall provide, the Construction Schedule in the bar chart (CPM, PERT or any other to be specified herein) showing the sequence of work items and the period of time during which he proposes to complete each work item in such a manner that his proposed programme for completion of the whole of the Works and Sections of the Works may meet Employer's completion targets in days noted above and counted from the Commencement Date (Attach sheets as required for the specified form of Construction Schedule)]*

## **METHOD OF PERFORMING THE WORK**

*[The Bidder is required to submit a narrative outlining the method of performing the Work. The narrative should indicate in detail and include but not be limited to:*

**(d) Organization Chart:**

*Shall indicate head office and field office personnel involved in management and supervision, engineering, equipment maintenance and purchasing.*

**(e) Mobilization:**

*In Pakistan, the type of facilities including personnel accommodation, office accommodation, provision for maintenance and for storage, communications, security and other services to be used.*

**(f) Method of executing the Works:**

*The procedures for installation of equipment and machinery and transportation of equipment and materials to the site.]*

**E-1**  
**Schedule-E to Bid**

**LIST OF MAJOR EQUIPMENT**

*[The Bidder will provide on Sheet E-2 of this Schedule a list of all major equipment and related items, under separate heading for items owned, to be purchased or to be arranged on lease by him to carry out the Works. The information shall include make, type, capacity, and anticipated period of utilization for all equipment.*

*The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Sheet E-3.]*

**LIST OF MAJOR EQUIPMENT**  
**Owned, Purchased or Leased**

<b>Owned Purchased or Leased</b>	<b>Description of Unit (Make, Model, Year)</b>	<b>Capacity HP Rating</b>	<b>Condition</b>	<b>Present Location or Source</b>	<b>Date of Delivery at Site</b>	<b>Period of Work on Project</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
a. Owned						
b. To be Purchased						
c. To be arranged on Lease						

**LIST OF MAJOR EQUIPMENT**

**Equipment details**

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	
The following information shall not be applicable for equipment owned by the Bidder		
Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

*[This Table shall be used for each item of Equipment separately]*

**ORGANIZATION CHART FOR  
THE  
SUPERVISORY STAFF AND LABOUR**

**G-1**  
**Schedule-G to Bid**

**LIST OF SUBCONTRACTORS**

I/ We intend to subcontract the following parts of the Work to subcontractors. In my/ our opinion, the subcontractors named hereunder are reliable and competent to perform that part of the work for which each is listed.

Enclosed are documentation outlining experience of subcontractors, the curriculum vitae and experience of their key personnel who will be assigned to the Contract, equipment to be supplied by them, size, location and type of contracts carried out in the past.

<b>Part of Works (Give Details)</b>	<b>Subcontractor (With Complete Address)</b>
<b>1</b>	<b>2</b>



**H-1**  
**Schedule-H to Bid**

**ESTIMATED PROGRESS PAYMENTS**

Bidder's estimate of the value of work which would be executed by him during each of the periods stated below, based on his Programme of the Works and the Rates in the Bill of Quantities, expressed in thousands of PKR:

<b>Quarter</b>	<b>Amounts (1,000 PKR)</b>
<b>1</b>	<b>2</b>
1 <sup>st</sup>	
2 <sup>nd</sup>	
3 <sup>rd</sup>	
4 <sup>th</sup>	
5 <sup>th</sup>	
6 <sup>th</sup>	
7 <sup>th</sup>	
8 <sup>th</sup>	
9 <sup>th</sup>	
<b>Bid Price</b>	

### CONSTRUCTION CAMP AND HOUSING FACILITIES

*[The Bidder in accordance with Clause 6 of the Conditions of Contract shall provide description of his construction camp's facilities and staff housing requirements.*

*The Bidder shall list or explain his plans for providing these facilities for the service of the Contract as follows:*

- (g) Site Preparation (clearing, land preparation, etc.).**
- (h) Provision of Services.**
  - *Electrical power (expected power load, etc.).*
  - *Water (required amount and system proposed).*
  - *Sanitation (sewage disposal system, etc.)*
- (i) Construction of Facilities**
  - *Contractor's Office. Workshop and Work Areas (areas required and proposed layout, type of construction of buildings, etc.).*
  - *Warehouses and Storage Areas (area required, type of construction and layout).*
  - *Housing and Staff Facilities (Plans for housing for proposed staff, layout, type of construction, etc.).*
- (j) Construction Equipment Assembly and Preparation (detailed plans for carrying out this activity).**
- (k) Other Items Proposed (Security services, etc.)]**

**Note:**

The Contractor shall be responsible for pumps, electrical power, water and electrical distribution systems, and sewerage system including all fittings, pipes and other items necessary for servicing the Contractor's construction camp.

**J-1**  
**Schedule-J to Bid**

**INTEGRITY PACT**  
**DECLARATION OF FEES, COMMISSION AND BROKERAGE, ETC.**  
**PAYABLE BY THE BIDDERS/CONTRACTORS OF GOODS, SERVICES &**  
**WORKS IN**  
**CONTRACTS WORTH PAK. RS. 10.00 MILLION OR MORE**

Contract No. \_\_\_\_\_ Dated \_\_\_\_\_  
Contract Value: \_\_\_\_\_  
Contract Title: \_\_\_\_\_

..... [Name of Bidder/Contractor] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan (GoP) or any administrative subdivision or agency thereof or any other entity owned or controlled by GoP through any corrupt business practice.

Without limiting the generality of the foregoing, [Name of Bidder/ Contractor] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

[Name of Bidder/Contractor] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[Name of Bidder/Contractor] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, [name of Bidder/Contractor] agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Bidder/Contractor] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP.

Name of Employer: .....  
Signature: .....  
[Seal]

Name of Bidder/Contractor: .....  
Signature: .....  
[Seal]

# **STANDARD FORMS**

## FORM OF BID SECURITY

Security Executed on \_\_\_\_\_  
(Date)

Expiry on \_\_\_\_\_  
(Date)

Name of Surety with Address: \_\_\_\_\_

Name of Principal (Bidder) with Address \_\_\_\_\_

Penal Sum of Security PKR \_\_\_\_\_ (Pak Rupees \_\_\_\_\_)

Bid Reference No. \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bid and at the request of the said Principal (Bidder) we, the Surety above named, are held and firmly bound unto \_\_\_\_\_ (hereinafter called the 'Employer') in the sum stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Bidder has submitted the accompanying Bid dated \_\_\_\_\_ for \_\_\_\_\_  
(Particulars of Bid) to the said Employer; and

- 13 WHEREAS, the Employer has required as a condition for considering said Bid that the Bidder furnishes a Bid Security in the above said sum to the Employer, conditioned as under: that the Bid Security shall remain in force for a period fourteen (14) days beyond the Bid Validity date i.e., upto \_\_\_\_\_.**
- 14 that the Bid Securities of the Bidders except the lowest three will be returned by the Employer within twenty eight (28) days from the opening of Bids, provided a Bidder request for the return of its Bid Security, or on the expiry of original validity of Bid Security or as extended, whichever is earlier;**
- 15 that the Bid Security of the lowest three Bidders comprising the successful Bidder will be returned when the successful Bidder has furnished the required Performance Security; and**
- 16 that in the event of failure of the successful Bidder to furnish the required Performance Security, the entire said sum be paid immediately to the said Employer pursuant to IB.16 and IB.35 of the Instructions to Bidders for the successful Bidder's failure to perform.**

NOW THEREFORE, if the successful Bidder shall, within the period specified therefor, on the prescribed form presented to him for signature enter into a formal Contract with the said Employer in accordance with his Bid as accepted and furnish within twenty eight (28) days of his being requested to do so, a Performance Security with good and sufficient surety, as may be required, upon the form prescribed by the said Employer for the faithful performance and proper fulfilment of the said Contract or in the event of non-withdrawal of the said Bid within the time specified for its validity then this obligation shall be void and of no effect, but otherwise to remain in full force and effect.

PROVIDED THAT the Surety shall forthwith pay the Employer the said sum upon first written demand of the Employer (without cavil or argument) and without requiring the Employer to prove or to show grounds or reasons for such demand, notice of which shall be sent by the Employer by registered post duly addressed to the Surety at its address given above.

PROVIDED ALSO THAT the Employer shall decide, whether the Principal (Bidder) has duly performed his obligations to sign the Contract Agreement and to furnish the requisite Performance Security within the time stated above, or has defaulted in fulfilling said requirements and the Surety shall pay without objection the said sum upon demand from the Employer forthwith and without any reference to the Principal (Bidder) or any other person.

IN WITNESS WHEREOF, the above bounden Surety has executed the instrument under its seal on the date indicated above, the name and seal of the Surety being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

SURETY  
(Schedule Bank/Insurance Company)

WITNESS:

Signature \_\_\_\_\_

**16.2 Name** \_\_\_\_\_

Title \_\_\_\_\_  
Corporate Guarantor (Seal)

\_\_\_\_\_  
Corporate Secretary (Seal)

2. \_\_\_\_\_

\_\_\_\_\_  
Name, Title & Address

## FORM OF PERFORMANCE SECURITY

Guarantee No. \_\_\_\_\_

Executed on \_\_\_\_\_

Expiry date \_\_\_\_\_

[Letter by the Guarantor to the Employer]

Name of Guarantor with address: \_\_\_\_\_

\_\_\_\_\_

Name of Principal (Contractor) with address: \_\_\_\_\_

\_\_\_\_\_

Penal Sum of Security (*express in words and figures*) \_\_\_\_\_

\_\_\_\_\_

Letter of Acceptance No. \_\_\_\_\_ Dated \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bidding Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the request of the said Principal we, the Guarantor above named, are held and firmly bound unto the

\_\_\_\_\_ (hereinafter called the Employer) in the penal sum of the amount stated above for the payment of which sum well and truly to be made to the said Employer, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has accepted the Employer's above said Letter of Acceptance for \_\_\_\_\_

\_\_\_\_\_ (Name of Contract) for the \_\_\_\_\_

\_\_\_\_\_ (Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the Employer, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Clause 11, Defects After Taking Over, of Conditions of Contract are fulfilled.

Our total liability under this Guarantee is limited to the sum stated above and it is a condition of any liability attaching to us under this Guarantee that the claim for payment in writing shall be received by us within the validity period of this Guarantee, failing which we shall be discharged of our liability, if any, under this Guarantee.

We, \_\_\_\_\_ (the Guarantor), waiving all objections and defense under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer without delay upon the Employer's first written demand without cavil or arguments

and without requiring the Employer to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the Employer's written declaration that the Principal has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to Employer's designated Bank & Account Number.

PROVIDED ALSO THAT the Employer shall decide, whether the Principal (Contractor) has duly performed his obligations under the Contract or has defaulted in fulfilling said obligations and the Guarantor shall pay without objection any sum or sums up to the amount stated above upon first written demand from the Employer forthwith and without any reference to the Principal or any other person.

IN WITNESS WHEREOF, the above-bounden Guarantor has executed this Instrument under its seal on the date indicated above, the name and corporate seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

**Guarantor**

(Schedule Bank/ Insurance Company)

WITNESS:

1. \_\_\_\_\_  
\_\_\_\_\_  
Corporate Secretary (Seal)

2. \_\_\_\_\_  
\_\_\_\_\_  
Name, Title & Address

Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_  
Corporate Guarantor (Seal)



## Letter of Acceptance

*[Letterhead paper of the Employer]*

NAME OF CONTRACT: \_\_\_\_\_

CONTRACT NUMBER: \_\_\_\_\_

TO : \_\_\_\_\_

Date: \_\_\_\_\_

Your Reference: \_\_\_\_\_

Our Reference: \_\_\_\_\_

We thank you for your Bid dated \_\_\_\_\_ for the execution and completion of the Works comprising the above-named Contract and remedying of defects therein, all in conformity with the terms and conditions contained in the Contract.

We have pleasure in accepting your Bid for the Accepted Contract Amount of:

\_\_\_\_\_  
[currency and amount in figures]

\_\_\_\_\_  
[currency and amount in words]

In consideration of you properly and truly performing the Contract, we agree to pay you the Accepted Contract Amount or such other sums to which you may become entitled under the terms of the Contract, at such times and as prescribed by the Contract.

We acknowledge that this Letter of Acceptance creates a binding Contract between us, and we undertake to fulfil all our obligations and duties in accordance with the terms of this Contract.

Signature: \_\_\_\_\_

Signed by: \_\_\_\_\_

For and on behalf of: \_\_\_\_\_

Date: \_\_\_\_\_

## FORM OF CONTRACT AGREEMENT

THIS CONTRACT AGREEMENT (hereinafter called the "Agreement") made on the \_\_\_\_\_ day of \_\_\_\_\_ (month) 20\_\_\_\_ between \_\_\_\_\_ (hereinafter called the "Employer") of the one part and \_\_\_\_\_ (hereinafter called the "Contractor") of the other part.

WHEREAS the Employer is desirous that certain Works, viz., \_\_\_\_\_ should be executed by the Contractor and has accepted Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW this Agreement witnessed as follows:

**14 In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.**

**15 The following documents, in the order of priority, after incorporating addenda, if any, except those parts relating to Instructions to Bidders shall be deemed to form and be read and construed as part of this Agreement:**

- 15.1 This Contract Agreement;**
- 15.2 The Letter of Acceptance;**
- 15.3 The Letter of Bid;**
- 15.4 The Particular Conditions Part A - Contract Data;**
- 15.5 The Particular Conditions Part B - Special Provisions;**
- 15.6 The General Conditions;**
- 15.7 The Specifications Part A - Specific Provisions;**
- 15.8 The Specifications Part B - Technical Provisions;**
- 15.9 The Drawings;**
- 15.10 The Completed Schedules to Bid including Schedule of Prices;**
  - 15.11 the JV Undertaking (if the Contractor is a JV); and**
  - 15.12 *[Employer to insert any other documents forming part of the Contract]***

The addenda/corrigenda, if any, (Excluding part relating to Instructions to Bidders along with Bidding Data) shall be deemed to have been incorporated at the appropriate places in the "Documents forming the Contract".

- 16 In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy defects therein in conformity and in all respects with the provisions of the Contract.**
- 17 The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works as per provisions of the Contract, 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 on the day, month and year first before written in accordance with their respective laws.

---

Signature of Contactor

---

Signature of Employer

---

(Seal)

---

(Seal)

Signed, Sealed and Delivered in the presence of:

---

Witness

---

Witness

---

(Name, Title and Address)

---

(Name, Title and Address)

## DAAB Agreement

DAAB-1

*[All italicized text and any text within square brackets (except sub-clause headings) in this form of agreement is for use in preparing the form and should be deleted from the final product].*

Name and details of the Contract \_\_\_\_\_

This Agreement made the \_\_\_\_\_ day of \_\_\_\_\_[month], \_\_\_\_\_[year], between

Name and contact details of the Employer \_\_\_\_\_(name)  
 \_\_\_\_\_(address)  
 \_\_\_\_\_(telephone)  
 \_\_\_\_\_(email / other contact details);

Name and contact details of the Contractor \_\_\_\_\_(name)  
 \_\_\_\_\_(address)  
 \_\_\_\_\_(telephone)  
 \_\_\_\_\_(email / other contact details);

Name and contact details of the DAAB Member \_\_\_\_\_ (name)

\_\_\_\_\_ (address)

\_\_\_\_\_ (telephone)

\_\_\_\_\_ (email / other contact details);

**(“DAAB Agreement”)**

Whereas:

- 16 the Employer and the Contractor have entered (or intend to enter) into the Contract;  
17 under the Contract, the “DAAB” or “Dispute Avoidance/Adjudication Board” means  
the sole member or three members (as stated in the Contract Data of the Contract) so  
named in the Contract, or appointed under Sub-Clause 21.1 [*Constitution of the DAAB*]  
or Sub-Clause 21.2 [*Failure to Appoint DAAB Members*] of the Conditions of Contract;  
18 the Employer and the Contractor desire jointly to appoint the above-named DAAB  
Member to act on the DAAB as:  
18.1 the sole member of the DAAB, and where this is the case, all references to the “Other  
Members” do not apply; or  
18.2 one of three members / chairman [*delete the one which is not applicable*] of the DAAB  
and, where this is the case, the other two persons are:

_____ (name)	_____ (name)
_____ (address)	_____ (address)
_____ (telephone)	_____ (telephone)
_____ (email/ other contact details)	_____ (email/ other contact details)

the “Other Members”; and

**19 the DAAB Member accepts this appointment.**

**The Employer, Contractor and DAAB Member jointly agree as follows:**

**17 The conditions of this DAAB Agreement comprise:**

**17.2 Clause 21 [*Disputes and Arbitration*] of the Conditions of Contract, and any other provisions of the Contract that are applicable to the DAAB’s Activities; and**

**17.3 the “General Conditions of Dispute Avoidance/Adjudication Agreement”, which is appended to the General Conditions of the “Conditions of Contract for Construction” Second Edition 2017 published by FIDIC (“GCs”), as amended and/or added to by the following provisions.**

**18 [Details of amendments to the GCs, if any. For example:**

In the procedural rules annexed to the GCs, Rule \_ is deleted and replaced by: “ ... “]

**19 The DAAB Member shall be paid in accordance with Clause 9 of the GCs. The currency of payment shall be**

**—.**

In respect of Sub-Clauses 9.1 and 9.2 of the GCs, the amounts of the DAAB Member’s monthly fee and daily fee shall be:

monthly fee \_\_\_\_\_ per month, and

daily fee of \_\_\_\_\_ per day

(or as otherwise set under Sub-Clause 9.3 of the GCs).

**20 In consideration of the above fees, and other payments to be made to the DAAB Member in accordance with the GCs, the DAAB Member undertakes to act as DAAB Member in accordance with the terms of this DAAB Agreement.**

**21 The Employer and the Contractor shall be jointly and severally liable for the DAAB Member’s fees and other payments to be made to the DAAB Member in accordance with the GCs.**

**22 This DAAB Agreement shall be governed by the law of \_\_\_\_\_ (if not stated, the law that governs the Contract under Sub-Clause 1.4 of the Conditions of Contract).**

SIGNED by: _____	SIGNED by: _____	SIGNED by: _____
Print name: _____	Print name: _____	DAAB Member

Title: _____	Title: _____	Title: _____
for and on behalf of the Employer	for and on behalf of the Contractor	

in the presence of	in the presence of	in the presence of
Witness: _____	Witness: _____	Witness: _____

Name: _____	Name: _____	Name: _____
-------------	-------------	-------------

Address: _____	Address: _____	Address: _____
----------------	----------------	----------------

_____	_____	_____
Date: _____	Date: _____	Date: _____

## FORM OF MOBILIZATION ADVANCE GUARANTEE/ BOND

Guarantee No. \_\_\_\_\_ Date \_\_\_\_\_

WHEREAS \_\_\_\_\_ (hereinafter called the 'Employer')

has entered into a Contract for \_\_\_\_\_

*(Particulars of Contract)*

with \_\_\_\_\_ (hereinafter called the "Contractor").

AND WHEREAS, the Employer has agreed to advance to the Contractor, at the Contractor's request, an amount of Pak Rupees \_\_\_\_\_ (PKR \_\_\_\_\_) which amount shall be advanced to the Contractor as per provisions of the Contract.

AND WHEREAS, the Employer has asked the Contractor to furnish Guarantee to secure the mobilization advance for the performance of his obligations under the said Contract.

AND WHEREAS, \_\_\_\_\_

(hereinafter called the "Guarantor") at the request of the Contractor and in consideration of the Employer agreeing to make the above advance to the Contractor, has agreed to furnish the said Guarantee.

NOW, THEREFORE, the Guarantor hereby guarantees that the Contractor shall use the advance for the purpose of above mentioned Contract and if he fails and commits default in fulfilment of any of his obligations for which the advance payment is made, the Guarantor shall be liable to the Employer for payment not exceeding the aforementioned amount.

Notice in writing of any default, on the part of the Contractor, of which the Employer at his discretion of making decision, shall be given by the Employer to the Guarantor, and on such first written demand, payment shall be made by the Guarantor of all sums then due under this Guarantee without any reference to the Contractor and without any objection.

This Guarantee shall remain in force until the advance is fully adjusted against payments from the Interim Payment Certificates of the Contractor or until \_\_\_\_\_ whichever is earlier. *(Date)*

The Guarantor's liability under this Guarantee shall not in any case exceed the sum of PKR \_\_\_\_\_ (Pak Rupees \_\_\_\_\_).

This Guarantee shall remain valid up to the aforesaid date and shall be null and void after the aforesaid date or earlier if the advance made to the Contractor is fully adjusted against payments from Interim Payment Certificates of the Contractor provided that the Guarantor

agrees that the aforesaid period of validity shall be deemed to be extended if on the abovementioned date the advance payment is not fully adjusted.

Guarantor  
*(Scheduled Bank/ Insurance Company)*

WITNESS:

Signature \_\_\_\_\_

1. \_\_\_\_\_  
\_\_\_\_\_  
Corporate Secretary (Seal)

Name \_\_\_\_\_  
Title \_\_\_\_\_  
Corporate Guarantor (Seal)

2. \_\_\_\_\_  
\_\_\_\_\_  
Name, Title & Address



# CONDITIONS OF CONTRACT

## **CONDITIONS OF CONTRACT**

The Conditions of Contract comprise two parts:

**18 General Conditions**

**19 Particular Conditions**

### **General Conditions**

These Conditions are the “General Conditions” which form part of the “FIDIC Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer Second Edition (2017 Red book, Reprinted 2022 with amendments)” published by:

International Federation of Consulting Engineers  
(Fédération Internationale des Ingénieurs – Conseils) – (FIDIC)  
World Trade Center II - Geneva Airport  
P. O. Box 311  
CH-1215 Geneva 15  
Switzerland  
Email: [fidic@fidic.org](mailto:fidic@fidic.org), [fidic.pub@fidic.org](mailto:fidic.pub@fidic.org)  
Website: <https://fidic.org/bookshop>

The successful Bidder after award of Works shall have to provide two (02) copies of above said “General Conditions” for incorporation in the Contract.

## Particular Conditions

*(Mandatory Provisions not to be amended/substituted  
except as instructed/permited by PEC in writing)*

The Particular Conditions (PC) complement the General Conditions (GC) to specify dates, contractual requirements, and special circumstances related to the Works. The PC consists of two parts, Part A - Contract Data and Part B - Special Provisions. The provisions to be found in the Special Provisions (Particular Conditions - Part B) take precedence over the equivalent provisions found under the same Sub-Clause number(s) in the General Conditions, and the provisions of the Contract Data (Particular Conditions - Part A) take precedence over the Special Provisions (Particular Conditions - Part B).

### Part A - Contract Data

Sub-Clause	Data to be Given	Data
1.1.27	Defects Liability Period (DLP):	<u>365</u> days The Contractor is liable to perform biweekly / fortnightly maintenance and cleaning of the Solar Plates during the DLP.
1.1.31	Employer's name and address:	<b>Sindh Madressatul Islam University, Aiwan-e-Tijarat Road, Behind Habib Bank Plaza, Karachi</b>
1.1.35	Engineer's name and address:	<i>EA Consulting Pvt Ltd.</i> AL-9, 15th Lane Khayaban-e-Hilal, D.H.A. Phase 7 Defence Housing Authority, Karachi, Sindh 75500
1.1.84	Time for Completion:	<u>180</u> days for whole of the Works
1.3(d)	Address of Employer for communications:	<b>Sindh Madressatul Islam University, Aiwan-e-Tijarat Road, Behind Habib Bank Plaza, Karachi</b>
	Address of Engineer for communications:	<i>EA Consulting Pvt Ltd.</i> AL-9, 15th Lane Khayaban-e-Hilal, D.H.A. Phase 7 Defence Housing Authority, Karachi, Sindh 75500



Sub-Clause	Data to be Given	Data
1.8	Number of additional paper copies of Contractor's Documents:	_ Only via EPADS
2.1	After receiving the Letter of Acceptance, the Contractor shall be given right of access to all or part of the Site within:	Immediately after issuance of Notice to Commencement
2.4	Employer's financial arrangements	<b>Federal Government (HEC) PSDP funds.</b>
3.2 (e)(ii)	Engineer's Duties and Authority	Variation resulting in an increase of the Accepted Contract Amount in excess of one percent (1%) subject to accumulative Variations not exceeding five percent (5%) of the Accepted Contract Amount
4.2	Performance Security (as percentage of the Accepted Contract Amount in Currencies) percent: currency :	Ten percent (5%) denominated in the currency(ies) of the Contract or in a freely convertible currency acceptable to the Employer
4.2.1	List of Insurance Companies	1. _____ 2. _____ 3. _____ <b><i>[Not Applicable]</i></b>
4.7.2	period for notification of errors in the items of reference	Twenty Eight (28) days
4.19	period of payment for temporary utilities	each month
4.20	number of additional paper copies of progress reports	<b><i>02 Nos. Copies</i></b>
5.1(a)	maximum allowable accumulated value of work subcontracted (as a percentage of the Accepted Contract Amount)	NOT APPLICABLE

Sub-Clause	Data to be Given	Data
5.1(b)	parts of the Works for which subcontracting is not permitted	NOT APPLICABLE
6.5	Normal working hours on the Site	<i>08 hours and 6 working days in a week</i>
8.3	number of additional paper copies of programmes	<i>03 Copies</i>
8.8 & 14.15(b)	Delay Damages payable for each day of delay	0.075% Of the Contract Value for each day of delay in completion of the works up to a maximum of 10% of the Contract Price stated in the Letter of Acceptance.
8.8	maximum amount of Delay Damages	Ten percent (10%) of the Accepted Contract Amount
8.14	Applicability of Incentives for Early Completion	<b>No</b>
12.3	Percentage profit	Ten percent (10%)
13.4.(b)(ii)	percentage rate to be applied to Provisional Sums for overhead charges and profit	Twenty Five percent (25%)
14.2	total Advance Payment	Not Applicable
14.2.1	List of Insurance Companies	1. _____ 2. _____ 3. _____ <i>Not Applicable</i>

Sub-Clause	Data to be Given	Data
14.2.3	percentage deductions for the repayment of the Advance Payment	Deduction shall be made at the amortization rate of 17.5 % of the value of the Works executed of each IPC as provided in paragraph (i) of Sub-Clause GCC 14.3, starting from 2 <sup>nd</sup> IPC provided that the advance payment shall be completely repaid prior to the time when 90% of the Accepted Contract Amount less Provisional Sums has been certified for payment. It may be more than 17.5% in the last installment to ensure full repayment.
14.3	period of Interim payment	Monthly Basis
14.3(b)	number of additional paper copies of Statements	<i>Original plus one hard copy, plus one electronic</i>
14.3 (iii)	percentage of retention	Five percent (5%)
14.3 (iii)	limit of Retention Money (as a percentage of the Contract Price)	Five percent (5%)
14.5(b)(i)	Plant and Materials for payment when shipped	Not Applicable
14.5(c)(i)	Plant and Materials for payment when delivered to the Site	Not Applicable
14.6.2	minimum amount of Interim Payment Certificate (IPC)	<i>As per monthly work done</i>
14.7(a)	period of payment of Advance Payment to the Contractor	Not Applicable
14.7b(i)	period for the Employer to make interim payments to the Contractor under Sub-Clause 14.6 [Interim Payment]	<u>28 days</u>

Sub-Clause	Data to be Given	Data
14.7b(ii)	period for the Employer to make interim payments to the Contractor under Sub-Clause 14.13 (Final Payment)	28 days
14.7(c)	period for the Employer to make final payment to the Contractor	56 days
14.8	financing charges for delayed payment	Not Applicable
14.11.1(b)	number of additional paper copies of draft Final Statements	3 Copies
14.15	currencies of payment of Contract Price	Pak Rupees
14.15(a)(i)	Proportions or amounts of Local and Foreign currencies	Not Applicable
14.15(c)	currencies and proportions for payment of Delay Damages	Not Applicable
14.15(f)	rates of exchange	Not Applicable
17.2(d)	forces of nature, the risks of which are allocated to the Contractor	Nil
19.1	permitted deductible limits: 19 insurance required for the Works 20 insurance required for Goods 21 insurance required for liability for breach of professional duty 22 insurance required against liability for fitness for purpose (if any is required) 23 insurance required for injury to persons and damage to property 24 insurance required for injury to employees 25 other insurances required by Laws and by local practice	Ten percent (10%) of loss amount on each & every loss Nil Nil Nil Nil Nil Nil



Sub-Clause	Data to be Given	Data
19.1	Periods for submission of insurance: 23 evidence of insurance 24 relevant policies	Not later than the Commencement Date Within twenty eight (28) day from the Commencement Date
19.2.1(b)	additional amount to be insured (as a percentage of the replacement value)	15% of the replacement value (Accepted Contract Amount)
19.2.2	extent of insurance required for Goods  amount of insurance required for Goods	from Ex-Works (i.e., works, factory, warehouse, etc) to delivery at the Site Full replacement value
19.2.3(a)	amount of insurance required for liability for breach of professional duty	Full replacement value of the Works to be designed by the Contractor
19.2.3(b)	insurance required against liability for fitness for purpose	Yes
19.2.3	period of insurance required for liability for breach of professional duty	Until the date of issuance of Performance Certificate
19.2.4	amount of insurance required for injury to persons and damage to property	Injury to person and Fatal case: in accordance with Workmen Compensation Act Damage to Property: _____ [Employer to insert amount(s) as per his assessment of the adjoining property(ies) other than the Works] without limit to the number of incidents
19.2.6	other insurances required by Laws and by local practice	All insurances as applicable, to the extent of execution of the project, under Federal and Provincial laws of Islamic Republic of Pakistan
21.1	time for appointment of the DAAB	Within 28 days from the Commencement Date.  In case the Accepted Contract Amount is lesser than PKR one (01) billion, appointment of the DAAB shall be made when Dispute arises between the Parties.

Sub-Clause	Data to be Given	Data
21.1	the DAAB shall comprise	<p>_____</p> <p><i>[insert either “a sole Member” or “Three Members”]</i></p> <p><i>[For a Contract estimated to cost above PKR 2.5 billion, the DAAB shall comprise of three members. For a Contract estimated to cost between PKR 1 billion and PKR 2.5 billion, the DAAB may comprise of three members or a sole member. For a Contract estimated to cost less than PKR 1 billion, a sole member is recommended.]</i></p>
21.1	<p>List of proposed members of DAAB</p> <p>24      proposed by Employer</p> <p>25      proposed by Contractor</p>	<p><i>[to be inserted at the time of signing of the Contract]</i></p> <p>1. _____</p> <p>2. _____</p> <p>3. _____</p> <p>1. _____</p> <p>2. _____</p> <p>3. _____</p>
21.2	Appointing entity (official) for DAAB members	Chairman      Pakistan      Engineering Council (PEC) from the list of PEC approved arbitrators published at its website
21.6	Rules of Arbitration	<p>PEC Rules of Conciliation and Arbitration or Pakistan Arbitration Act of 1940, if the former is inactive.</p> <p>The place of Arbitration shall be in the Employer’s      country:</p> <p>_____</p> <p><i>[Insert name of city]</i></p>

**Summary of Sections of the Works**

<b>Section Name/Description of parts of the Works that shall be designated a Section for the purposes of the Contract (Sub-Clause 1.1.73)</b>	<b>Value: Percentage*of Accepted Contract Amount (Sub-Clause 14.9)</b>	<b>Time for Completion (Sub- Clause 1.1.84)</b>	<b>Delay Damages (Sub- Clause 8.8)</b>
A			
B			
C			

\* These percentages shall also be applied to each half of the Retention Money under Sub-Clause 14.9.

<b>Section Name/Description (Sub-Clause 1.1.73)</b>	<b>Time for Completion(Sub- Clause 1.1.84)</b>	<b>Incentives for Early Completion(Sub- Clause 8.14)</b>
A		
B		
C		

**Particular Conditions**  
**Part B - Special Provisions**

**Definitions****1.1.76 “Specification”**

Following is added at the end:

“and consists of two parts i.e.,

- **“Part A - Specific Provisions”; and**
- **“Part B - Technical Provisions”.**

**25.5 Interpretation**

**“and” is deleted from the end of sub-paragraph (i) and added at the end of sub-paragraph (j).**

Sub-paragraph (k) is added:

“(k) The word “tender” is synonymous with “bid” the word tenderer with “bidder”, the words “tender documents” with “bidding documents” and “Schedule of Prices” with “Bill of Quantities”, as applicable.”

**26.7 Priority of Documents**

The documents listed at (a) through (k) of this Sub-Clause are deleted and substituted with the following:

- 28 the Contract Agreement;**
- 29 the Letter of Acceptance;**
- 30 the Letter of Bid;**
- 31 the Particular Conditions Part A - Contract Data;**
- 32 the Particular Conditions Part B - Special Provisions;**
- 33 the General Conditions;**
- 34 the Specification Part A - Specific Provisions;**
- 35 the Specification Part B - Technical Provisions;**
- 36 the Drawings;**
- 37 the completed Schedules to Bid including Bill of Quantities;**
- 38 the JV Undertaking (if the Contractor is a JV); and**
- 39 any other documents forming part of the Contract.**

The addenda/corrigenda, if any, shall be deemed to have been incorporated at the appropriate places in the documents forming the Contract.

**26.8 Contract Agreement the**

**In the last line of the 1<sup>st</sup> paragraph the text “shall be borne by**

Employer” is substituted by “shall be reimbursed by the Employer to the Contractor”.

**28.3 The Engineer Pakistan**

**In sub-paragraph (a) the text “as defined in the**

Engineering Council Act, 1975 (Act No. V of 1976)” are added after the words “professional engineer”.

**28.4 Engineer’s Duties and Authority**

The Engineer shall obtain the consent in writing of the Employer before taking action under the following Sub-Clauses of these Conditions:

- 30 Consenting to the subcontracting of any part of the Works**

under Sub-Clause 5.1 [Subcontractors]

- 31 Any action under Sub-Clauses 8.9 [Employer's Suspension] and 8.12 [Prolonged Suspension]**
- 32 Issuance of "Taking Over Certificate" under Sub-Clause 10.1 [Taking Over the Works and Sections].**
- 33 Issuing the "Performance Certificate" under Sub-Clause 11.9 [Performance Certificate].**
- 34 Sub-Clause 13.1 [Right to Vary]: instructing a Variation, except;**
  - 34.1 in an emergency situation as determined by the Engineer, or**
  - 34.2 if such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the Contract Data.**
- 35 Sub-Clause 13.3 [Variation Procedure]: approving a proposal for Variation submitted by the Contractor in accordance with Sub-Clause 13.3.2 [Variation by Request for Proposal] or 13.2 [Value Engineering].**
- 36 Certifying release of second half of the Retention Money under Sub-Clause 14.9 [Release of Retention Money].**
- 37 Issuing Final Payment Certificate under Sub-Clause 14.13 [Issue of FPC].**
- 38 Sub-Clause \_\_\_\_\_ \***
- 39 Sub-Clause \_\_\_\_\_ \***

*\*[insert Sub-Clause number (not Sub-Clause 3.7 [Agreement or Determination])]*

Any such requirement shall not be applied to any action by the Engineer under Sub-Clause 3.7 [Agreement or Determination], as stated in Sub-Clause 3.2 [Engineer's Duties and Authority] of the General Conditions.

Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 13 and shall notify the Contractor accordingly, with a copy to the Employer.

Following is added after the words "the Employer's consent is required" in 4<sup>th</sup> paragraph:

"stating that the Employer's consent has been obtained for that specified authority"



**Sindh Madressatul Islam  
University**

**DEVELOPMENT OF SINDH MADRESSATUL ISLAM UNIVERSITY  
(SMIU) CAMPUS AT EDUCATION CITY MALIR, KARACHI  
(SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF  
OFF-GRID SOLAR POWER SYSTEM FOR SEVEN NUMBER  
BUILDINGS)**



**VOLUME-II  
Technical Specifications**



**EA Consulting Pvt Ltd**

**ARCHITECTURE | ENGINEERING | PROJECT MANAGEMENT  
PAKISTAN | UAE | CANADA**

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October, 2024

## SECTION-E-01

### SOLAR POWER SYSTEM

#### 1.01 TECHNICAL SPECIFICATIONS

The technical data sheets and execution drawings are to be provided by the Specialized Contractor / Vendor.

#### LIST OF APPROVED MANUFACTURERS

\* All Equipment shall be procured from Principal Authorized agents / distributors / resellers

The Bidder shall fill name of only one manufacturer for each equipment/material on which the tender is based. He shall be bound to supply the equipment from the same manufacturer. In case, the Bidder gives names of more than one manufacturer against any equipment, the Engineer / Owner can ask the Bidder supply the equipment from any one of them.

At the evaluation stage if it is noted that any material offered by the bidder does not meet the specification requirements, the Engineer / Owner reserves the right to ask the bidder to replace his choice of equipment supplier meeting the required quality and specification requirement.

During the execution stage if the material from any supplier is found defective / substandard the Engineer / Owner reserves the right to ask the successful bidder to replace his choice of manufacturer / supplier for that particular equipment.

Any change in manufacturer / supplier shall only be entertained if there is sufficient reason that adhering to the original choice of manufacturer / supplier shall be detrimental to either the project quality or project timeline. Proper approval shall have to be sought for change in the choice manufacturer / supplier at least 1 month before the equipment is to be procured.

Samples of all equipment shall have to be got approved prior to their procurement. Any deviation from the BOQ / Specification shall be listed in a separate sheet to be labeled as Annexure-1 containing the details of the deviation including the deviating BOQ item number.

**SOLAR POWER SYSTEM**

S.No	Made/Brand	Supplier/Manufacturer	Contact #
<b>A</b>	<b>Solar Inverter</b>		
i	Huawei Growatt Inverex Nitrox	Green Industries Solutions (Pvt) Ltd	Mr.Zeeshan Arshad 0303-4446383
ii	Huawei Growatt Sungrow Inverex Nitrox	Noble Energy	Mr. Farrukh Mansoor 0331-2049366
iii	Huawei Sungrow	Synergy Corporations	Mr.Sohaib 0302-8235719
iv	Inverex Nitrox	Greeves Pakistan	Mr. Arsalan 0322-2937715
v	Systek	Masha Brothers	Mr. Rahat Jan 0321-2596622
<b>B</b>	<b>Solar Photovoltaic</b>		
i	Longi	Green Industries Solutions (Pvt) Ltd	Mr.Zeeshan Arshad 0303-4446383
ii	Canadian Jinko Trina Longi	Noble Energy	Mr. Farrukh Mansoor 0331-2049366
iii	Jinko	Synergy Corporations	Mr.Sohaib 0302-8235719
iv	Jinko	Greeves Pakistan	Mr. Arsalan 0322-2937715
v	Jinko	Masha Brothers	Mr. Rahat Jan 0321-2596622
<b>C</b>	<b>Lithium Battery</b>		
i	Narada	Green Industries Solutions (Pvt) Ltd	Mr.Zeeshan Arshad 0303-4446383
ii	BYD Solax Inverex Pylontech	Noble Energy	Mr. Farrukh Mansoor 0331-2049366
iii	Syncor	Synergy Corporations	Mr.Sohaib 0302-8235719
iv	BYD	Greeves Pakistan	Mr. Arsalan 0322-2937715





**Sindh Madressatul Islam University**

**DEVELOPMENT OF SINDH MADRESSATUL ISLAM UNIVERSITY (SMIU) CAMPUS AT EDUCATION CITY MALIR, KARACHI (SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF OFF-GRID SOLAR POWER SYSTEM FOR SEVEN NUMBER BUILDINGS)**



**VOLUME-III  
Bill of Quantities**



**EA Consulting Pvt Ltd**

**ARCHITECTURE | ENGINEERING | PROJECT MANAGEMENT  
PAKISTAN | UAE | CANADA**

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October, 2024

**BILL OF QUANTITIES  
SUMMARY OF COST**

S.NO.	DESCRIPTION	SOLAR SYSTEM (AMOUNT IN PAK RUPEES)
1	<b>Student Welfare Center</b> (33.5 KW Solar System)	
2	<b>Faculty of Media Studies &amp; Social Sciences</b> (165.5 KW Solar System)	
3	<b>Cafeteria</b> (3.5 KW Solar System)	
4	<b>Student Hostel Female</b> (40 KW Solar System)	
5	<b>Student Hostel Male</b> (40 KW Solar System)	
6	<b>Admin Building</b> (49.5 KW Solar System)	
7	<b>Library</b> (34 KW Solar System)	
	<b>GRAND TOTAL AMOUNT (Rs.)</b>	

STUDENT WELFARE CENTER  
BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
	<b>SOLAR SYSTEM (33.5 KW OFF-GRID SOLAR SYSTEM)</b> Supply, installation, testing and commissioning of following Monocrystalline Off-Grid Solar System, complete with all materials, equipments, mounting accessories, required protections etc., as per specification and drawings, complete in all respects. Note: Product warranty minimum 25 years for PV Modules and 5 years for Inverter and batteries.				
1	<b><u>PV Modules</u></b>				
a)	580W PV Modules	58	No.		
2	<b><u>Inverters</u></b>				
a)	12 KW Three Phase Inverter	3	No.		
3	<b><u>Remote Monitoring</u></b>				
a)	Wireless Monitoring for Inverters	1	No.		
4	<b><u>Distribution Boxes</u></b>				
a)	Distribution Boxes complete with Breakers etc.	1	Job		
5	<b><u>Structure</u></b>				
a)	P1/L1 Structure (MS Hot Dip Galvanized)	1	Job		
6	<b><u>DC Wires</u></b>				
a)	1 Core, 4 Sq.mm Cu.PVC/PVC 1000Vdc.	1	Job		
7	<b><u>AC Cable</u></b>				
a)	4 Core, Cu.PVC/PVC AC Wire for Inverter and Busbar connections	1	Job		
8	<b><u>Batteries</u></b>				
a)	Lithium Battery 48V 100Ah	3	No.		
9	<b><u>Earthing and Lightning Protection</u></b>				
a)	Complete earthing and Lightning Protection works including following: * Lightning Arresters • Earthing Rods • Grounding Wires * other all required materials	1	Job		
10	<b><u>Electrical Installation</u></b>				
a)	Complete system installation including SPDs, PVC conduits, Bends, Ducts, Flexible Pipes, Cable Ties etc.	1	Job		
11	<b><u>Transportation:</u></b>				
a)	Delivery, installation, testing, commissioning, programming, handing over complete System with equipment's manual and warranty documents to owners representative.	1	Job		
	<b>CARRIED TO MAIN SUMMARY =====&gt;&gt;&gt;</b>				

**Note:** Solar system will energize building at day time and will provide 5 hrs Battery backup after sunset.

FACULTY OF MEDIA STUDIES & SOCIAL SCIENCES  
BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
	<b>SOLAR SYSTEM (165.5 KW OFF-GRID SOLAR SYSTEM)</b> Supply, installation, testing and commissioning of following Monocrystalline Off-Grid Solar System, complete with all materials, equipments, mounting accessories, required protections etc., as per specification and drawings, complete in all respects. Note: Product warranty minimum 25 years for PV Modules and 5 years for Inverter and batteries.				
1	<b><u>PV Modules</u></b>				
a)	580W PV Modules	285	No.		
2	<b><u>Inverters</u></b>				
a)	12 KW Three Phase Inverter	14	No.		
3	<b><u>Remote Monitoring</u></b>				
a)	Wireless Monitoring for Inverters	1	No.		
4	<b><u>Distribution Boxes</u></b>				
a)	Distribution Boxes complete with Breakers etc.	1	Job		
5	<b><u>Structure</u></b>				
a)	P1/L1 Structure (MS Hot Dip Galvanized)	1	Job		
6	<b><u>DC Wires</u></b>				
a)	1 Core, 4 Sq.mm Cu.PVC/PVC 1000Vdc.	1	Job		
7	<b><u>AC Cable</u></b>				
a)	4 Core, Cu.PVC/PVC AC Wire for Inverter and Busbar connections	1	Job		
8	<b><u>Batteries</u></b>				
a)	Lithium Battery 48V 100Ah	14	No.		
9	<b><u>Earthing and Lightning Protection</u></b>				
a)	Complete earthing and Lightning Protection works including following: * Lightning Arresters • Earthing Rods • Grounding Wires * other all required materials	1	Job		
10	<b><u>Electrical Installation</u></b>				
a)	Complete system installation including SPDs, PVC conduits, Bends, Ducts, Flexible Pipes, Cable Ties etc.	1	Job		
11	<b><u>Transportation:</u></b>				
a)	Delivery, installation, testing, commissioning, programming, handing over complete System with equipment's manual and warranty documents to owners representative.	1	Job		
	<b>CARRIED TO MAIN SUMMARY =====&gt;&gt;&gt;</b>				

**Note:** Solar system will energize building at day time and will provide 5 hrs Battery backup after sunset.

CAFETERIA  
BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
	<b>SOLAR SYSTEM (3.5 KW OFF-GRID SOLAR SYSTEM)</b> Supply, installation, testing and commissioning of following Monocrystalline Off-Grid Solar System, complete with all materials, equipments, mounting accessories, required protections etc., as per specification and drawings, complete in all respects. Note: Product warranty minimum 25 years for PV Modules and 5 years for Inverter and batteries.				
1	<b><u>PV Modules</u></b>				
a)	580W PV Modules	6	No.		
2	<b><u>Inverters</u></b>				
a)	3.5 KW Single Phase Inverter	1	No.		
3	<b><u>Remote Monitoring</u></b>				
a)	Wireless Monitoring for Inverters	1	No.		
4	<b><u>Distribution Boxes</u></b>				
a)	Distribution Boxes complete with Breakers etc.	1	Job		
5	<b><u>Structure</u></b>				
a)	P1/L1 Structure (MS Hot Dip Galvanized)	1	Job		
6	<b><u>DC Wires</u></b>				
a)	1 Core, 4 Sq.mm Cu.PVC/PVC 1000Vdc.	1	Job		
7	<b><u>AC Cable</u></b>				
a)	4 Core, Cu.PVC/PVC AC Wire for Inverter and Busbar connections	1	Job		
8	<b><u>Batteries</u></b>				
a)	Lithium Battery 48V 100Ah	2	No.		
9	<b><u>Earthing and Lightning Protection</u></b>				
a)	Complete earthing and Lightning Protection works including following: * Lightning Arresters • Earthing Rods • Grounding Wires * other all required materials	1	Job		
10	<b><u>Electrical Installation</u></b>				
a)	Complete system installation including SPDs, PVC conduits, Bends, Ducts, Flexible Pipes, Cable Ties etc.	1	Job		
11	<b><u>Transportation:</u></b>				
a)	Delivery, installation, testing, commissioning, programming, handing over complete System with equipment's manual and warranty documents to owners representative.	1	Job		
	<b>CARRIED TO MAIN SUMMARY =====&gt;&gt;&gt;</b>				

**Note:** Solar system will energize building at day time and will provide 5 hrs Battery backup after sunset.

STUDENT HOSTEL FEMALE  
BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
	<b>SOLAR SYSTEM (40 KW OFF-GRID SOLAR SYSTEM)</b> Supply, installation, testing and commissioning of following Monocrystalline Off-Grid Solar System, complete with all materials, equipments, mounting accessories, required protections etc., as per specification and drawings, complete in all respects. Note: Product warranty minimum 25 years for PV Modules and 5 years for Inverter and batteries.				
1	<b><u>PV Modules</u></b>				
a)	580W PV Modules	69	No.		
2	<b><u>Inverters</u></b>				
a)	12 KW Three Phase Inverter	4	No.		
3	<b><u>Remote Monitoring</u></b>				
a)	Wireless Monitoring for Inverters	1	No.		
4	<b><u>Distribution Boxes</u></b>				
a)	Distribution Boxes complete with Breakers etc.	1	Job		
5	<b><u>Structure</u></b>				
a)	P1/L1 Structure (MS Hot Dip Galvanized)	1	Job		
6	<b><u>DC Wires</u></b>				
a)	1 Core, 4 Sq.mm Cu.PVC/PVC 1000Vdc.	1	Job		
7	<b><u>AC Cable</u></b>				
a)	4 Core, Cu.PVC/PVC AC Wire for Inverter and Busbar connections	1	Job		
8	<b><u>Batteries</u></b>				
a)	Lithium Battery 48V 100Ah	4	No.		
9	<b><u>Earthing and Lightning Protection</u></b>				
a)	Complete earthing and Lightning Protection works including following: * Lightning Arresters • Earthing Rods • Grounding Wires * other all required materials	1	Job		
10	<b><u>Electrical Installation</u></b>				
a)	Complete system installation including SPDs, PVC conduits, Bends, Ducts, Flexible Pipes, Cable Ties etc.	1	Job		
11	<b><u>Transportation:</u></b>				
a)	Delivery, installation, testing, commissioning, programming, handing over complete System with equipment's manual and warranty documents to owners representative.	1	Job		
	<b>CARRIED TO MAIN SUMMARY =====&gt;&gt;&gt;&gt;</b>				

**Note:** Solar system will energize building at day time and will provide 5 hrs Battery backup after sunset.

STUDENT HOSTEL MALE  
BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
	<b>SOLAR SYSTEM (40 KW OFF-GRID SOLAR SYSTEM)</b> Supply, installation, testing and commissioning of following Monocrystalline Off-Grid Solar System, complete with all materials, equipments, mounting accessories, required protections etc., as per specification and drawings, complete in all respects. Note: Product warranty minimum 25 years for PV Modules and 5 years for Inverter and batteries.				
1	<b><u>PV Modules</u></b>				
a)	580W PV Modules	69	No.		
2	<b><u>Inverters</u></b>				
a)	12 KW Three Phase Inverter	4	No.		
3	<b><u>Remote Monitoring</u></b>				
a)	Wireless Monitoring for Inverters	1	No.		
4	<b><u>Distribution Boxes</u></b>				
a)	Distribution Boxes complete with Breakers etc.	1	Job		
5	<b><u>Structure</u></b>				
a)	P1/L1 Structure (MS Hot Dip Galvanized)	1	Job		
6	<b><u>DC Wires</u></b>				
a)	1 Core, 4 Sq.mm Cu.PVC/PVC 1000Vdc.	1	Job		
7	<b><u>AC Cable</u></b>				
a)	4 Core, Cu.PVC/PVC AC Wire for Inverter and Busbar connections	1	Job		
8	<b><u>Batteries</u></b>				
a)	Lithium Battery 48V 100Ah	4	No.		
9	<b><u>Earthing and Lightning Protection</u></b>				
a)	Complete earthing and Lightning Protection works including following: * Lightning Arresters • Earthing Rods • Grounding Wires * other all required materials	1	Job		
10	<b><u>Electrical Installation</u></b>				
a)	Complete system installation including SPDs, PVC conduits, Bends, Ducts, Flexible Pipes, Cable Ties etc.	1	Job		
11	<b><u>Transportation:</u></b>				
a)	Delivery, installation, testing, commissioning, programming, handing over complete System with equipment's manual and warranty documents to owners representative.	1	Job		
	<b>CARRIED TO MAIN SUMMARY =====&gt;&gt;&gt;&gt;</b>				

**Note:** Solar system will energize building at day time and will provide 5 hrs Battery backup after sunset.

ADMIN BUILDING  
BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
	<b>SOLAR SYSTEM (49.5 KW OFF-GRID SOLAR SYSTEM)</b> Supply, installation, testing and commissioning of following Monocrystalline Off-Grid Solar System, complete with all materials, equipments, mounting accessories, required protections etc., as per specification and drawings, complete in all respects. Note: Product warranty minimum 25 years for PV Modules and 5 years for Inverter and batteries.				
1	<b><u>PV Modules</u></b>				
a)	580W PV Modules	86	No.		
2	<b><u>Inverters</u></b>				
a)	12 KW Three Phase Inverter	5	No.		
3	<b><u>Remote Monitoring</u></b>				
a)	Wireless Monitoring for Inverters	1	No.		
4	<b><u>Distribution Boxes</u></b>				
a)	Distribution Boxes complete with Breakers etc.	1	Job		
5	<b><u>Structure</u></b>				
a)	P1/L1 Structure (MS Hot Dip Galvanized)	1	Job		
6	<b><u>DC Wires</u></b>				
a)	1 Core, 4 Sq.mm Cu.PVC/PVC 1000Vdc.	1	Job		
7	<b><u>AC Cable</u></b>				
a)	4 Core, Cu.PVC/PVC AC Wire for Inverter and Busbar connections	1	Job		
8	<b><u>Batteries</u></b>				
a)	Lithium Battery 48V 100Ah	5	No.		
9	<b><u>Earthing and Lightning Protection</u></b>				
a)	Complete earthing and Lightning Protection works including following: * Lightning Arresters • Earthing Rods • Grounding Wires * other all required materials	1	Job		
10	<b><u>Electrical Installation</u></b>				
a)	Complete system installation including SPDs, PVC conduits, Bends, Ducts, Flexible Pipes, Cable Ties etc.	1	Job		
11	<b><u>Transportation:</u></b>				
a)	Delivery, installation, testing, commissioning, programming, handing over complete System with equipment's manual and warranty documents to owners representative.	1	Job		
	<b>CARRIED TO MAIN SUMMARY =====&gt;&gt;&gt;</b>				

**Note:** Solar system will energize building at day time and will provide 5 hrs Battery backup after sunset.



LIBRARY  
BILL OF QUANTITIES

S.NO.	DESCRIPTION	QTY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
	<b>SOLAR SYSTEM (34 KW OFF-GRID SOLAR SYSTEM)</b> Supply, installation, testing and commissioning of following Monocrystalline Off-Grid Solar System, complete with all materials, equipments, mounting accessories, required protections etc., as per specification and drawings, complete in all respects. Note: Product warranty minimum 25 years for PV Modules and 5 years for Inverter and batteries.				
1	<b><u>PV Modules</u></b>				
a)	580W PV Modules	59	No.		
2	<b><u>Inverters</u></b>				
a)	12 KW Three Phase Inverter	3	No.		
3	<b><u>Remote Monitoring</u></b>				
a)	Wireless Monitoring for Inverters	1	No.		
4	<b><u>Distribution Boxes</u></b>				
a)	Distribution Boxes complete with Breakers etc.	1	Job		
5	<b><u>Structure</u></b>				
a)	P1/L1 Structure (MS Hot Dip Galvanized)	1	Job		
6	<b><u>DC Wires</u></b>				
a)	1 Core, 4 Sq.mm Cu.PVC/PVC 1000Vdc.	1	Job		
7	<b><u>AC Cable</u></b>				
a)	4 Core, Cu.PVC/PVC AC Wire for Inverter and Busbar connections	1	Job		
8	<b><u>Batteries</u></b>				
a)	Lithium Battery 48V 100Ah	3	No.		
9	<b><u>Earthing and Lightning Protection</u></b>				
a)	Complete earthing and Lightning Protection works including following: * Lightning Arresters • Earthing Rods • Grounding Wires * other all required materials	1	Job		
10	<b><u>Electrical Installation</u></b>				
a)	Complete system installation including SPDs, PVC conduits, Bends, Ducts, Flexible Pipes, Cable Ties etc.	1	Job		
11	<b><u>Transportation:</u></b>				
a)	Delivery, installation, testing, commissioning, programming, handing over complete System with equipment's manual and warranty documents to owners representative.	1	Job		
	<b>CARRIED TO MAIN SUMMARY =====&gt;&gt;&gt;</b>				

**Note:** Solar system will energize building at day time and will provide 5 hrs Battery backup after sunset.