INVITATION FOR BIDS

University of Sahiwal at District Sahiwal invites sealed bids from reputed Contractors/firms registered with Pakistan Engineering Council (PEC) for the year 2023-2024 in category noted below in relevant field of specialization i.e EE-11 for Supply & installation of 230 Kw Solar systems at University of Sahiwal:

Sr.#	Name of work	Estimated Cost (Rs. Million)	Bid Security	Category of Firm with PEC	Date and Time
1.	Supply & installation of 230 Kw Solar systems at University of Sahiwal: (detail in tender documents)	38.87	5% of Estimated Cost (Required to be submitted in original before the closing date and time	C-5 or Above with field of specialization EE-11 (i), (ii) & (iii)	Closing date 24.10.2024 time 11:00 am Opening date 24.10.2024 time 11:30 am

- **1.** Bidding will be carried out by adopting <u>"Single Stage Two Envelope"</u> procedure as per Clause-38(2)(a) of Punjab Procurement Rule-2014
- **2.** The bid shall be submitted through EPADS.
- 3. The submission shall be as "Financial proposal" and "Technical Proposal"
- **4.** In the first instance technical proposal shall be opened and evaluated **as per criteria** given in bidding documents i.e (**TORs**).
- **5.** After the technical evaluation and approval of the proposal University of Sahiwal will open the financial bids only of the technically responsive bidders on the date, time, and venue communicated later.
- **6.** The bidders shall bid for the complete scope of work as specified in the bidding documents. Incomplete bids or bids covering a partial scope of work will be rejected.
- **7.** All bidders must submit a bid security in original to the University in favor of the Additional Treasurer University of Sahiwal, Sahiwal in the shape of CDR or an irrevocable bank guarantee.
- **8.** The acceptance/rejection of bids shall be governed by Punjab Procurement Rule -2014.
- **9.** Bidding documents can be obtained from the **office of undersigned or can be downloaded from PPRA/EPADS or University Website** and submitted accordingly.

Director (P&D)
University of Sahiwal, Sahiwal

Convener, CPC
University of Sahiwal, Sahiwal

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INSTRUCTIONS
TO BIDDERS
&
BIDDING DATA

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INSTRUCTIONS TO BIDDERS

A. GENERAL

IB.1 Scope of Bid & Source of Funds

1.1 Scope of Bid

The Employer as defined in the Bidding wishes to receive Bids for the Works summarized in the Bidding Data.

Bidders must quote for the complete scope of work. Any Bid covering partial scope of work will be rejected as non-responsive.

1.2 Source of Funds

The Employer has arranged funds from its own sources+ HEC grant.

IB.2 Eligible Bidders

- 2.1 Bidding is open to all firms and persons meeting the following requirements:
 - a) Duly licensed by the Pakistan Engineering Council (PEC) in the category C-5 or above in code of specialization EE-11 (i), (ii) & (iii)
 - b) **Duly Technically qualified as per TORs**

IB.3 Cost of Bidding

3.1 The bidder shall bear all costs associated with the preparation and submission of its bid 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. BIDDING DOCUMENTS

IB.4 Contents of Bidding Documents

4.1 In addition to Invitation for Bids, the Bidding Documents are those stated below, and

should be read in conjunction with any Addendum issued in accordance with Sub-Clause IB.6.1.

- 1. Instructions to Bidders & Bidding Data
- 2. Form of Bid & Schedules to Bid Schedules to Bid comprise the following:
 - (i) Schedule A: Schedule of Prices
 - (ii) Schedule B: Specific Works Data
 - (iii) Schedule C: Works to be performed by Subcontractors
 - (iv) Schedule D: Proposed Programme of Works
 - (v) Schedule E: Method of Performing Works
 - (vi) Schedule F: Integrity Pact
- 3. Conditions of Contract & Contract Data
- 4. Standard Forms:
 - (i) Form of Bid Security
 - (ii) Form of Performance Security
 - (iii)Form of Contract Agreement
 - (iv)Form of Bank Guarantee for Advance Payment
- 5. Specifications
- 6. Drawings, if any

IB.5 Clarification of Bidding Documents

- 5.1 A prospective bidder requiring any clarification(s) in respect of the Bidding Documents may notify the Engineer/Employer at the Employer's/Engineer's address indicated in the Bidding Data.
- 5.2 The Engineer/Employer will respond to any request for clarification which it receives earlier than ten (10) days prior to the deadline for the submission of Bids. Copies of the Engineer/Employer's response will be forwarded to all prospective bidders, at least five (5) days prior to deadline for submission of Bids, who have received the Bidding Documents including a description of the enquiry but without identifying its source.

IB.6 Amendment of Bidding Documents

- 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.
- 6.2 Any addendum thus issued shall be part of the Bidding Documents pursuant to Sub-Clause 6.1 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.

6.3 To afford prospective bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may at its discretion extend the deadline for submission of Bids.

C. PREPARATION OF BIDS

IB.7 Language of Bid

7.1 The bid prepared by the bidder and all correspondence and documents relating to the Bid, exchanged by the bidder and the Employer shall be written in the English language, provided that any printed literature furnished by the bidder may be written in another language so long as accompanied by an English translation of its pertinent passages in which case, for purposes of interpretation of the Bid, the English translation shall govern.

IB.8 Documents Comprising the Bid

- 8.1 The bid prepared by the bidder shall comprise the following components:
 - (a) Covering Letter
 - (b) Form of Bid duly filled, signed and upload, in accordance with Sub-Clause IB.14.3.
 - (c) Schedules (A to F) to Bid duly filled and initialed, in accordance with the instructions contained therein & in accordance with Sub-Clause IB14.3.
 - (d) Bid Security furnished in accordance with Clause IB.13. (e)

Power of Attorney in accordance with Sub-Clause IB 14.5. (f)

Documentary evidence in accordance with Clause IB.11

(g) Documentary evidence in accordance with Clause IB.12.

IB.9 Sufficiency of Bid

9.1 Each bidder shall satisfy himself before Bidding as to the correctness and sufficiency of his Bid and of the rates and prices entered in the Schedule of Prices, which rates and prices shall except in so far as it is otherwise expressly provided in the Contract, cover all his obligations under the Contract and all matters and things necessary for the proper completion of the Works.

9.2 The bidder is advised to obtain for himself at his own cost and responsibility all information that may be necessary for preparing the bid and entering into a Contract for execution of the Works.

IB.10 Bid Prices, Currency of Bid and Payment

- 10.1 The bidder shall fill up the Schedule of Prices (Schedule A to Bid) indicating the unit rates and prices of the Works to be performed under the Contract. Prices in the Schedule of Prices shall be entered keeping in view the instructions contained in the Preamble to Schedule of Prices.
- 10.2 Unless otherwise stipulated in the Conditions of Contract, prices quoted by the bidder shall remain fixed during the bidder's performance of the Contract and not subject to variation on any account.
- 10.3 The unit rates and prices in the Schedule of Prices shall be quoted by the bidder in the currency as stipulated in Bidding Data.

IB.11 Documents Establishing Bidder's Eligibility and Qualifications

- 11.1 Pursuant to Clause IB.8, the bidder shall furnish, as part of its bid, documents establishing the bidder's eligibility to bid and its qualifications to perform the Contract if its bid is accepted.
- 11.2 Bidder/Manufacturer must possess and provide evidence of its capability and the experience as stipulated in Bidding Data and the Qualification Criteria stipulated in the Bidding Documents.

IB.12 Documents Establishing Works' Conformity to Bidding Documents

- 12.1 The documentary evidence of the Works' conformity to the Bidding Documents may be in the form of literature, drawings and data and the bidder shall furnish documentation as set out in Bidding Data.
- 12.2 The bidder shall note that standards for workmanship, material and equipment, and references to brand names or catalogue numbers, if any, designated by the Employer in the Technical Provisions are intended to be descriptive only and not restrictive.

IB.13 Bid Security

- Each bidder shall furnish, as part of his bid, at the option of the bidder, a Bid Security in the amount stipulated in Bidding Data in Pak. Rupees in the form of Deposit at Call or a Bank Guarantee issued by a Scheduled Bank in Pakistan in favour of the Employer valid for a period up to twenty eight (28) days beyond the bid validity date.
 - Original Bid Security should be submitted in the office of the Employer / Procuring agency before the closing hour for bid submission and receiving / courier slip must be uploaded along with the scan copy of bid security on EPADs.

- 13.2 Any bid not accompanied by an acceptable Bid Security as per IB 13.1 shall be rejected as non-responsive.
- 13.3 The bid securities of unsuccessful bidders will be returned upon award of contract to the successful bidder or on the expiry of validity of Bid Security whichever is earlier.
- 13.4 The Bid Security of the successful bidder will be returned when the bidder has furnished the required Performance Security, pursuant to Clause IB.21 and signed the Contract Agreement, pursuant to Sub-Clauses IB.20.2 & 20.3.
- 13.5 The Bid Security may be forfeited:
 - (a) if a bidder withdraws his bid during the period of bid validity; or
 - (b) if a bidder does not accept the correction of his Bid Price, pursuant to Sub-Clause 16.4 (b) hereof; or
 - (c) in the case of a successful bidder, if he fails to:
 - (i) furnish the required Performance Security in accordance with Clause IB.21, or
 - (ii) sign the Contract Agreement, in accordance with Sub-Clauses IB.20.2 & 20.3.

IB.14 Validity of Bids, Format, Signing and Submission of Bid

- 14.1 Bids shall remain valid for the period stipulated in the Bidding Data after the date of bid opening.
- 14.2 All Schedules to Bid are to be properly completed and signed.
- 14.3 No alteration is to be made in the Form of Bid except in filling up the blanks as directed. If any alteration be made or if these instructions be not fully complied with, the bid may be rejected.
- 14.4 Each bidder shall prepare Original and number of copies specified in the Bidding Data of the documents comprising the bid as described in Clause IB.8 and clearly mark them "ORIGINAL" as appropriate. In the event of discrepancy between them, the original shall prevail.
- 14.5 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign (in the case of copies, Photostats are also acceptable). This shall be indicated by submitting a written Power of Attorney authorizing the signatory of the bidder to act for and on behalf of the bidder. All pages of

- the bid shall be initialed and official seal be affixed by the person or persons signing the bid.
- 14.6 The Bid shall be uploaded on EPADs as scanned copy as mentioned in advertisement and original copy must be kept for submission in case the bidder is declared successful for award and further processing.

D. SUBMISSION OF BID

IB.15 Deadline for Submission, Modification & Withdrawal of Bids

15.1 Bids must be received by the Employer only through EPADs.

E. BID OPENING AND EVALUATION

IB.16 Bid Opening, Clarification and Evaluation

- The Employer will open the bids, as per the process of online bidding following the PPRA/ EPADs guidelines., at the time, date and location stipulated in the Bidding Data.
- The bidder's name, Bid Prices, any discount, the presence or absence of Bid Security, and such other details as the Employer at its discretion may consider appropriate, will be recorded by the Employer. The Employer will record the minutes of the bid opening.
 - Any Bid Price or discount which is not recorded at bid opening will not be taken into account in the evaluation of bid.
- 16.3 To assist in the examination, evaluation and comparison of Bids the Engineer/Employer may, at its discretion, ask the bidder for a clarification of its Bid. The request for clarification and the response shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted.
- 16.4 (a) Prior to the detailed evaluation, pursuant to Sub-Clauses IB.16.7 to 16.9, the Engineer/Employer will determine the substantial responsiveness of each bid to the Bidding Documents. For purpose of these Clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the Bidding Documents without material deviations. It will include to determine the requirements listed in Bidding Data.
 - (b) Arithmetical errors will be rectified on the following basis:

If there is a discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between the words and figures the amount in words shall prevail. If there is a discrepancy between the Total Bid price entered in Form of Bid and the total shown in Schedule of Prices-Summary, the amount stated in the Form of Bid will be corrected by the Employer in accordance with the Corrected Schedule of Prices.

If the bidder does not accept the corrected amount of Bid, his Bid will be rejected and his Bid Security forfeited.

- 16.5 A Bid determined as substantially non-responsive will be rejected and will not subsequently be made responsive by the bidder by correction of the non-conformity.
- 16.6 Any minor informality or non-conformity or irregularity in a Bid which does not constitute a material deviation may be waived by Employer, provided such waiver does not prejudice or affect the relative ranking of any other bidders.
- 16.7 The Engineer/Employer will evaluate and compare only the bids previously determined to be substantially responsive pursuant to Sub-Clauses IB.16.4 to 16.6 as per requirements given hereunder. Bids will be evaluated for complete scope of works. The prices will be compared on the basis of the Evaluated Bid Price pursuant to Sub-Clause 16.8 herein below.

(a) Technical Evaluation

It will be examined in detail whether the Works offered by the bidder complies with the Technical Provisions of the Bidding Documents. For this purpose, the bidder's data submitted with the bid in Schedule B to Bid will be compared with technical features/criteria of the Works detailed in the Technical Provisions. Other technical information submitted with the bid regarding the Scope of Work will also be reviewed.

(b) Commercial Evaluation

It will be examined in detail whether the bids comply with the commercial/contractual conditions of the Bidding Documents. It is expected that no material deviation/stipulation shall be taken by the bidders.

16.8 Evaluated Bid Price

In evaluating the bids, the Engineer/Employer will determine for each bid in addition to the Bid Price, the following factors (adjustments) in the manner and to the extent indicated below to determine the Evaluated Bid Price:

(i) making any correction for arithmetic errors pursuant to Sub-Clause 16.4 hereof. (ii)

making an appropriate price adjustment for any other acceptable variation or deviation.

- (iii) making an appropriate price adjustment for Deviations in terms of Payments (if any and acceptable to the Employer).
- (iv) discount, if any, offered by the bidders as also read out and recorded at the time of bid opening.

16.9 Evaluation Methods

Pursuant to Sub-Clause 16.8, Para (ii), and (iii) following evaluation methods for price adjustments will be followed:

(i) Price Adjustment for Technical Compliance

The cost of making good any deficiency resulting from technical noncompliance will be added to the Corrected Total Bid Price for comparison purposes only. The adjustments will be applied taking the highest price quoted by other bidders being evaluated in detail in their original Bids for corresponding item. In case of non-availability of price from other bidders, the price will be estimated by the Engineer/Employer.

(ii) Price Adjustment for Commercial Compliance

The cost of making good any deficiency resulting from any quantifiable variations and deviations from the Bid Schedules and Conditions of Contract, as determined by the Engineer/Employer will be added to the Corrected Total Bid Price for comparison purpose only. Adjustment for commercial compliance will be added to the Corrected Total Bid Prices.

(iii) Price Adjustment for Deviation in Terms of Payments

Refer to Bidding Data

IB.17 Process to be Confidential

- 17.1 Subject to Sub-Clause IB.16.3 heretofore, no bidder shall contact Engineer/Employer on any matter relating to its Bid from the time of the Bid opening to the time the bid evaluation result is announced by the Employer. The evaluation result shall be announced at least ten (10) 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.
- 17.2 Any effort by a bidder to influence Engineer/Employer in the Bid evaluation, Bid comparison or Contract Award decisions may result in the rejection of his Bid. Whereas, any bidder feeling aggrieved may lodge a written complaint not later than fifteen (15) days after the announcement of the bid evaluation result, however, mere fact of lodging a complaint shall not warrant suspension of procurement process.

F. AWARD OF CONTRACT

IB.18. Post Qualification

18.1 The Employer, at any stage of the bid evaluation, having credible reasons for or *prima facie* evidence of any defect in supplier's or contractor's capacities, may require the suppliers or contractors to provide information concerning their professional, technical, financial, legal or managerial competence whether already pre-qualified or not:

Provided that such qualification shall only be laid down after recording reasons therefor in writing. They shall form part of the records of that bid evaluation report.

18.2 The determination will take into account the bidder's financial and technical capabilities. It will be based upon an examination of the documentary evidence of the bidders' qualifications submitted under Clause IB.11, as well as such other information required in the Bidding Documents.

IB.19 Award Criteria & Employer's Right

- 19.1 Subject to Sub-Clause IB.19.2, the Employer will award the Contract to the bidder whose bid has been determined to be substantially responsive to the Bidding Documents and who has offered the lowest evaluated Bid Price, provided that such bidder has been determined to be qualified to satisfactory perform the Contract in accordance with the provisions of Clause IB.18.
- 19.2 Not with standing Sub-Clause IB.19.1, the Employer reserves the right to accept or reject any bid, and 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 to inform the affected bidders of the grounds for the Employer's action except that the grounds for its rejection of all bids shall upon request be communicated, to any bidder who submitted a bid, without justification of the grounds. Notice of the rejection of all the bids shall be given promptly to all the bidders.

IB.20 Notification of Award & Signing of Contract Agreement

- 20.1 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.
- 20.2 Within seven (7) days from the date of furnishing of acceptable Performance Security under the Conditions of Contract, the Employer will send the successful bidder the Form of Contract Agreement provided in the Bidding Documents, incorporating all agreements between the parties.
- 20.3 The formal Agreement between the Employer and the successful bidder shall be executed within seven (7) days of the receipt of Form of Contract Agreement by the successful bidder

from the Employer.

IB.21 Performance Security

- 21.1 The successful bidder shall furnish to the Employer a Performance Security in the form and the amount stipulated in the Conditions of Contract within a period of fourteen (14) days after the receipt of Letter of Acceptance.
- 21.2 Failure of the successful bidder to comply with the requirements of Sub-Clauses IB.20.2 & 20.3 or 21.1 or Clause IB.22 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security.

IB.22 Integrity Pact

The Bidder shall sign and stamp the Form of Integrity Pact provided at Schedule-F to Bid in the Bidding Document for all Federal Government procurement contracts exceeding Rupees ten (10) million. Failure to provide such Integrity Pact shall make the bid non-responsive.

BIDDING DATA

(This section should be filled in by the Engineer/Employer before issuance of the Bidding Documents. The following specific data for the Works to be tendered 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.)

Instructions to Bidders Clause Reference

1.1 Name of Employer

University of Sahiwal at Sahiwal

Brief Description of Works

Supply & Installation of 230 Kw Solar System at Academic Block-1, 2 & VC house, University of Sahiwal, Sahiwal

5.1 (a) Employer's address:
Director (P&D) University of Sahiwal, Sahiwal

Engineer's address:

(b) M/s Development Consultancy Services Pvt) Ltd.

Office No.27, 2nd Floor, Executive Complex, G-8 Markaz, Islamabad.

Tel:051-8736304-05

- 10.3 Bid shall be quoted entirely in Pak. Rupees. The payment shall be made in Pak. Rupees.
- 11.2 The bidder/manufacturer has the financial, technical and production capability necessary to perform the Contract. **As per TORs**

- 12.1 (a) A detailed description of the Works, essential technical and performance characteristics.
 - (b) Complete set of technical information, description data, literature and drawings as required in accordance with Schedule B to Bid, Specific Works Data. This will include but not be limited to a sufficient number of drawings, photographs, catalogues, illustrations and such other information as is necessary to illustrate clearly the significant characteristics such as general construction dimensions and other relevant information about the works to be performed.

13.1 Amount of Bid Security

@ 5% of estimated cost of project in the shape of CDR/Pay order /Bank Guarantee of any Schedule Bank of Pakistan.

Scanned copy of bid security along with receiving /courier slip must uploaded on EPAD.

14.1 **Period of Bid Validity**

90 Days

14.4 Number of Copies of the Bid to be Submitted

Scanned copy of original to be uploaded as per advertisement. Original copy to be kept safe for submission in case of successful bidder.

14.6 (a) Employer's Address for the Purpose of Bid Submission

Director (P&D) University of Sahiwal, Sahiwal Tel: 040-9200432

15.1 Deadline for Submission of Bids

As per tender notice

16.1 Venue, Time, and Date of Bid Opening

As per tender notice

16.4 **Responsiveness of Bids**

- (i) the Bid is valid till required period,
- (ii) the Bid prices are firm during currency of contract (if it is a fixed price bid)
- (iii) completion period offered is within specified limits,
- (iv) the Bidder/Manufacturer is eligible to Bid and possesses the requisite experience, capability and qualification.
- (v) the Bid does not deviate from basic technical requirements and
- (vi) the Bids are generally in order, etc.

16.9 **Price Adjustment: Not Applicable**

FORM OF BID AND SCHEDULES TO BID

FORM OF BID

(LETTER OF OFFER)

Bid Reference	ce No
Supply & Ins ahiwal, Sahi	stallation of Solar System at Academic Block-1, 2 & VC house, University of wal
To:	
Gentlemen,	
1.	Having examined the Bidding Documents including Instructions to Bidders, Bidding Data, Conditions of Contract, Contract Data, Specifications, Drawings, if any, Schedule of Prices and Addenda Nos. for the execution of the above-named Works, we, the undersigned, being a company doing business under the name of and address and being
	duly incorporated under the laws of Pakistan hereby offer to execute and complete such Works and remedy any defects therein in conformity with the said Documents including Addenda thereto for the Total Bid Price of Rs
2.	We understand that all the Schedules attached hereto form part of this Bid.
3.	As security for due performance of the undertakings and obligations of this Bid, we submit herewith a Bid Security in the amount of drawn in your favour or made payable to you and valid for a period of twenty eight (28) days beyond the period of validity of Bid.
4.	We undertake, if our Bid is accepted, to commence the Works and to deliver and complete the Works comprised in the Contract within the time(s) stated in Contract Data.
5.	We agree to abide by this Bid for the period of days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
6.	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.

- 7. We undertake, if our Bid is accepted, to execute the Performance Security referred to in Conditions of Contract for the due performance of the Contract.
- 8. We understand that you are not bound to accept the lowest or any bid you may receive.
- 9. We do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other person or persons making a bid for the Works.

Dated this	_day of		, 20		
Signature					
in the capacity of	duly	authorized	to sign bi	d for and on bel	half of
(Name of Bidder in Block C	Capitals)			(0.1)	
				(Seal)	
Address					
Witness:					
(Signatura)					
(Signature)					
Name:Address:					

[SCHEDULES TO BID INCLUDE THE FOLLOWING:

- Schedule A to Bid: Schedule of Prices
- Schedule B to Bid: Specific Works Data
- Schedule C to Bid: Works to be Performed by Subcontractors
- Schedule D to Bid: Proposed Programme of Works
- Schedule E to Bid: Method of Performing Works
- Schedule F to Bid: Integrity Pact]

SCHEDULE – A TO BID

SCHEDULE OF PRICES

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1.	Preamble to Schedule of Prices	24
2.	Schedule of Prices	25
	*(a) Summary of Bid Prices	
	* (b) Detailed Schedule of Prices	

PREAMBLE TO SCHEDULE OF PRICES

1. General

- 1.1 The Schedule of Prices shall be read in conjunction with the Conditions of Contract, Contract Data together with the Specifications and Drawings, if any.
- 1.2 The Contract shall be for the whole of the Works as described in these Bidding Documents. Bids must be for the complete scope of works.

2. Description

2.1 The general directions and descriptions of works and materials are not necessarily repeated nor summarized in the Schedule of Prices. References to the relevant sections of the Bidding Documents shall be made before entering prices against each item in the Schedule of Prices.

3. Units & Abbreviations

3.1	Units of measurement, symbols and abbreviations expressed in the
	Bidding Documents shall comply with the Systeme Internationale d
	Unites (SI Units).

4. Rates and Prices

- 4.1 Except as otherwise expressly provided under the Conditions of Contract, the rates and amounts entered in the Schedule of Prices shall be the rates at which the Contractor shall be paid and shall be the full inclusive value of the works set forth or implied in the Contract; except for the amounts reimbursable, if any to the Contractor under the Contract.
- 4.2 Unless otherwise stipulated in the Contract Data, the rates and prices entered by the bidder shall not be subject to adjustment during the performance of the Contract.
- 4.3 All duties, taxes and other levies payable by the Contractor shall be included in the rates and prices.
- 4.4 The whole cost of complying with the provisions of the Contract shall be included in the items provided in the Schedule of Prices, 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 and no separate payment will be made for those items.

The rates, prices and amounts shall be entered against each item in the Schedule of Prices. Any item against which no rate or price is entered by the bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates and prices for other items in the Schedule of Prices.

- 4.5 (a) The bidder shall be deemed to have obtained all information as to and all requirements related thereto which may affect the bid price.
 - *(b) The Contractor shall be responsible to make complete arrangements for the transportation of the Plant to the Site.

*(Employer may modify as appropriate)

4.6 The Contractor shall provide for all parts of the Works to be completed in every respect. Notwithstanding that any details, accessories, etc. required for the complete installation and satisfactory operation of the Works, are not specifically mentioned in the Specifications, such details shall be considered as included in the Contract Price.

5. Bid Prices

5.1 Break-up of Bid Prices

The various elements of Bid Prices shall be quoted as detailed by the Employer in the format of Schedule of Prices.

The bidder shall recognize such elements of the costs which he expects to incur the performance of the Works and shall include all such costs in the rates and amounts entered in the Schedule of Prices.

5.2 Total Bid Price

The total of bid prices in the Schedule of Prices shall be entered in the Summary of Bid Prices.

6. Provisional Sums

6.1 Provisional Sums included and so designated in the Schedule of Prices if any, shall be expended in whole or in part at the direction and discretion of the Engineer/Employer. The Contractor will only receive payment in respect of Provisional Sums if he has been instructed by the Engineer/Employer to utilise such sums.

SCHEDULE OF PRICES – SUMMARY OF BID PRICES

Bill No.	Description	Total Amount (Rs)
1.		
1.		
	Total Bid Price (The amount to be entered in Paragraph	of the Form of Bid)
	(In words).	

SCHEDULE OF PRICES

Item No.	Description	Quantity	Unit Rate(Rs)	Total Amount (Rs)	
1.					
1.					
Total (to be carried to Summary of Bid Price)					

*SPECIFIC WORKS DATA

(To be prepared and incorporated by the Employer)

*(Note: The Employer shall spell out the information & data required to be filled out by the bidder and to furnish complementary information).

WORKS TO BE PERFORMED BY SUBCONTRACTORS

The bidder will do the work with his own forces except the work listed below which he intends to sub-contract.

Items of Works to be Sub-Contracted

Name and address of Sub-Contractors

Statement of similar works previously executed (attach evidence)

Note:

- 1. No change of Sub-Contractors shall be made by the bidder without prior approval of the Employer.
- 2. The truthfulness and accuracy of the statement as to the experience of Sub-Contractors is guaranteed by the bidder. The Employer's judgment shall be final as to the evaluation of the experience of Sub-Contractors submitted by the bidder.
- 3. Statement of similar works shall include description, location & value of works, year completed and name & address of the clients.

PROPOSED PROGRAMME OF WORKS

Bidder shall provide a programme in a bar-chart showing the sequence of work items by which he proposes to complete the Works of the entire Contract. The programme should indicate the sequence of work items and the period of time during which he proposes to complete the Works including the activities like designing, schedule of submittal of drawings, ordering and procurement of materials, manufacturing, delivering, construction of civil works, erection, testing and commissioning of Works to be supplied under the Contract.

METHOD OF PERFORMING WORKS

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

- The sequence and methods in which he proposes to carry out the Works, including the number of shifts per day and hours per shift, he expects to work.
- A list of all major items of constructional and erectional plant, tools and vehicles proposed to be used in delivering/carrying out the Works at Site
- The procedure for installation of equipment and transportation of equipment and materials to the site.
- Organisation chart indicating head office & field office personnel involved in management, supervision and engineering of the Works to be done under the Contract.

(INTEGRITY PACT)

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACTS WORTH RS. 10.00 MILLION OR MORE

Contract No Dated Contract Value: Contract Title:			
	enefit		
Without limiting the generality of the foregoing, [name of Supplier] represents and war that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone not given or agreed to give and shall not give or agree to give to anyone within or outside Pal either directly or indirectly through any natural or juridical person, including its aff agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary commission, gratification, bribe, finder's fee or kickback, whether described as consult fee or otherwise, with the object of obtaining or inducing the procurement of a contract, interest, privilege or other obligation or benefit in whatsoever form from GoP, except which has been expressly declared pursuant hereto.	e and distantiliate, any tation right,		
[name of Supplier] certifies that it has made and will make full disclosure of all agreer and arrangements with all persons in respect of or related to the transaction with GoP an not taken any action or will not take any action to circumvent the above declaration, represent or warranty.	d has		
[name of Supplier] accepts full responsibility and strict liability for making any declaration, not making full disclosure, misrepresenting facts or taking any action like defeat the purpose of this declaration, representation and warranty. It agrees that any conright, interest, privilege or other obligation or benefit obtained or procured as aforesaid without prejudice to any other rights and remedies available to GoP under any law, contratother instrument, be voidable at the option of GoP.	ly to tract, shall,		
Notwithstanding any rights and remedies exercised by GoP in this regard, [name of Supplier] 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 time the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Supplier] 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 Buyer:			

CONDITIONS OF CONTRACT

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CONDITIONS OF CONTRACT

1. GENERAL PROVISIONS

1.1 **Definitions**

In the Contract as defined below, the words and expressions defined shall have the following meanings assigned to them, except where the context requires otherwise:

The Contract

- 1.1.1 "Contract" means the Contract Agreement and the other documents listed in the Contract Data.
- 1.1.2 "Specifications" means the document as listed in the Contract Data, including Employer's requirements in respect of design to be carried out by the Contractor (if any), and any Variation to such document.
- 1.1.3 "Drawings" means the Employer's drawings of the Works as listed in the Contract Data, and any Variation to such drawings.

Persons

- 1.1.4 "Employer" means the person named in the Contract Data and the legal successors in title to this person, but not (except with the consent of the Contractor) any assignee.
- 1.1.5 "Contractor" means the person named in the Contract Data and the legal successors in title to this person, but not (except with the consent of the Employer) any assignee.
- 1.1.6 "Party" means either the Employer or the Contractor.

Dates, Times and Periods

- 1.1.7 "Commencement Date" means the date fourteen (14) days after the date the Contract comes into effect or any other date named in the Contract Data.
- 1.1.8 "Day" means a calendar day
- 1.1.9 "Time for Completion" means the time for completing the Works as stated in the Contract Data (or as extended under Sub-Clause 7.3), calculated from the Commencement Date.

Money and Payments

1.1.10 "Cost" means all expenditure properly incurred (or to be incurred) by the Contractor, whether on or off the Site, including overheads and similar charges

but does not include any allowance for profit.

Other Definitions

- 1.1.11 "Contractor's Equipment" means all machinery, apparatus and other things required for the execution of the Works but does not include Materials or Plant intended to form part of the Works.
- 1.1.12 "Country" means the Islamic Republic of Pakistan.
- 1.1.13 "Employer's Risks" means those matters listed in Sub-Clause 6.1.
- 1.1.14 "Force Majeure" means an event or circumstance which makes performance of a Party's obligations illegal or impracticable and which is beyond that Party's reasonable control.
- 1.1.15 'Materials' means things of all kinds (other than Plant) to be supplied and incorporated in the Works by the Contractor.
- 1.1.16 "Plant" means the machinery and apparatus intended to form or forming part of the Works.
- 1.1.17 "Site" means the places provided by the Employer where the Works are to be executed, and any other places specified in the Contract as forming part of the Site.
- 1.1.18 "Variation" means a change which is instructed by the Engineer/Employer under Sub-Clause 10.1.
- 1.1.19 'Works' means any or all the works whether Supply, Installation, Construction etc. and design (if any) to be performed by the Contractor including temporary works and any variation thereof.
- 1.1.20 "Engineer" means the person notified by the Employer to act as Engineer for the purpose of the Contract and named as such in Contract Data.

1.2 **Interpretation**

Words importing persons or parties shall include firms and organisations. Words importing singular or one gender shall include plural or the other gender where the context requires.

1.3 **Priority of Documents**

The documents forming the Contract are to be taken as mutually explanatory of one another. If an ambiguity or discrepancy is found in the documents, the priority of the documents shall be in accordance with the order as listed in the Contract Data.

1.4 **Law**

The law of the Contract is the relevant Law of Islamic Republic of Pakistan.

1.5 Communications

All Communications related to the Contract shall be in English language.

1.6 **Statutory Obligations**

The Contractor shall comply with the Laws of Islamic Republic of Pakistan and shall give all notices and pay all fees and other charges in respect of the Works.

2. THE EMPLOYER

2.1 **Provision of Site**

The Employer shall provide the Site and right of access thereto at the times stated in the Contract Data.

2.2 **Permits etc.**

The Employer shall, if requested by the Contractor, assist him in applying for permits, licences or approvals which are required for the Works.

2.3 Engineer's/Employer's Instructions

The Contractor shall comply with all instructions given by the Employer or the Engineer, if notified by the Employer, in respect of the Works including the suspension of all or part of the Works.

2.4 Approvals

No approval or consent or absence of comment by the Engineer/Employer shall affect the Contractor's obligations.

3. ENGINEER'S/EMPLOYER'S REPRESENTATIVES

3.1 **Authorized Person**

The Employer shall appoint a duly authorized person to act for him and on his behalf for the purposes of this Contract. Such authorized person shall be duly identified in the Contract Data or otherwise notified in writing to the Contractor as soon as he is so appointed. In either case the Employer shall notify the Contractor, in writing, the precise scope of the authority of such authorized person at the time of his appointment.

3.2 Engineer's/Employer's Representative

The name and address of Engineer's/Employer's Representative is given in Contract Data. However the Contractor shall be notified by the Engineer/Employer, the delegated duties and authority before the Commencement of Works.

4. THE CONTRACTOR

4.1 **General Obligations**

The Contractor shall carry out the Works properly and in accordance with the Contract. The Contractor shall provide all supervision, labour, Materials, Plant and Contractor's Equipment which may be required.

4.2 Contractor's Representative

The Contractor shall appoint a representative at site on full time basis to supervise the execution of work and to receive instructions on behalf of the Contractor but only after obtaining the consent of the Employer for such appointment which consent shall not be unreasonable withheld by the Employer. Such authorized representative may be substituted/replaced by the Contractor at any time during the Contract Period but only after obtaining the consent of the Employer as aforesaid.

4.3 **Subcontracting**

The Contractor shall not subcontract the whole of the Works. The Contractor shall not subcontract any part of the Works without the consent of the Employer.

4.4 **Performance Security**

The Contractor shall furnish to the Employer within fourteen (14) days after receipt of Letter of Acceptance a Performance Security at the option of the bidder, in the form of Bank Draft or Bank Guarantee or an insurance company having alteast AA rating from PACRA/JCR for the amount and validity specified in Contract Data.

5. DESIGN BY CONTRACTOR

5.1 Contractor's Design

The Contractor shall carry out design to the extent specified, as referred to in the Contract Data. The Contractor shall promptly submit to the Engineer/Employer all designs prepared by him. Within fourteen (14) days of receipt the Engineer/Employer shall notify any comments or, if the design submitted is not in accordance with the Contract, shall reject it stating the reasons. The Contractor shall not construct any element of the Works designed by him within fourteen (14)

days after the design has been submitted to the Engineer/Employer or which has been rejected. Design that has been rejected shall be promptly amended and resubmitted. The Contractor shall resubmit all designs commented on taking these comments into account as necessary.

5.2 **Responsibility for Design**

The Contractor shall remain responsible for his bided design and the design under this Clause, both of which shall be fit for the intended purposes defined in the Contract and he shall also remain responsible for any infringement of any patent or copyright in respect of the same. The Engineer/Employer shall be responsible for the Specifications and Drawings.

6. EMPLOYER'S RISKS

6.1 The Employer's Risks

The Employer's Risks are:-

- a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies, within the Country;
- b) rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war, within the Country;
- c) riot, commotion or disorder by persons other than the Contractor's personnel and other employees including the personnel and employees of Sub-Contractors, affecting the Site and/or the Works;
- d) ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component of such an assembly, except to the extent to which the Contractor/Sub-Contractors may be responsible for the use of any radio-active material;
- e) Pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds;
- f) use or occupation by the Employer of any part of the Works, except as may be specified in the Contract;
- g) late handing over of sites, anomalies in drawings, late delivery of designs and drawings of any part of the Works by the Employer's personnel or by others for whom the Employer is responsible;
- h) a suspension under Sub-Clause 2.3 unless it is attributable to the Contractor's failure; and

 physical obstructions or physical conditions other than climatic conditions, encountered on the Site during the performance of the Works, for which the Contractor immediately notified to the Employer and accepted by the Employer.

7. TIME FOR COMPLETION

7.1 Execution of the Works

The Contractor shall commence the Works on the Commencement Date and shall proceed expeditiously and without delay and shall complete the Works, subject to Sub-Clause 7.3 below, within the Time for Completion.

7.2 **Programme**

Within the time stated in the Contract Data, the Contractor shall submit to the Engineer/Employer a programme for the Works in the form stated in the Contract Data.

7.3 Extension of Time

The Contractor shall, within such time as may be reasonable under the circumstances, notify the Employer/Engineer of any event(s) falling within the scope of Sub-Clause 6.1 or 10.3 of these Conditions of Contract and request the Employer/Engineer for a reasonable extension in the time for the completion of Works. Subject to the aforesaid, the Employer/Engineer shall determine such reasonable extension in the time for the completion of Works as may be justified in the light of the details/particulars supplied by the Contractor in connection with the such determination by the Employer/Engineer within such period as may be prescribed by the Employer/Engineer for the same; and

the Employer shall extend the Time for Completion as determined.

7.4 **Late Completion**

If the Contractor fails to complete the Works within the Time for Completion, the Contractor's only liability to the Employer for such failure shall be to pay the amount stated in the Contract Data for each day for which he fails to complete the Works.

8. TAKING-OVER

8.1 **Completion**

The Contractor may notify the Engineer/Employer when he considers that the Works are complete.

8.2 **Taking-Over Notice**

Within fourteen (14) days of the receipt of the said notice of completion from the Contractor the Employer/Engineer shall either takeover the completed Works and

issue a Certificate of Completion to that effect or shall notify the Contractor his reasons for not taking-over the Works. While issuing the Certificate of Completion as aforesaid, the Employer/Engineer may identify any outstanding items of work which the Contractor shall undertake during the Maintenances Period.

9. REMEDYING DEFECTS

9.1 **Remedying Defects**

The Contractor shall for a period stated in the Contract Data from the date of issue of the Certificate of Completion carry out, at no cost to the Employer, repair and rectification work which is necessitated by the earlier execution of poor quality of work or use of below specifications material in the execution of Works and which is so identified by the Employer/Engineer in writing within the said period. Upon expiry of the said period, and subject to the Contractor's faithfully performing his aforesaid obligations, the Employer/Engineer shall issue a Maintenance Certificate whereupon all obligations of the Contractor under this Contract shall come to an end.

Failure to remedy any such defects or complete outstanding work within a reasonable time shall entitle the Employer to carry out all necessary works at the Contractor's cost. However, the cost of remedying defects not attributable to the Contractor shall be valued as a Variation.

9.2 **Uncovering and Testing**

The Engineer/Employer may give instruction as to the uncovering and/or testing of any work. Unless as a result of an uncovering and/or testing it is established that the Contractor's design, Materials, Plant or workmanship are not in accordance with the Contract, the Contractor shall be paid for such uncovering and/or testing as a Variation in accordance with Sub-Clause 10.2.

10. VARIATIONS AND CLAIMS

10.1 **Right to Vary**

The Employer/Engineer may issue Variation Order(s) in writing. Where for any reason it has not been possible for the Employer/Engineer to issue such Variations Order(s), the Contractor may confirm any verbal orders given by the Employer/Engineer in writing and if the same are not refuted/denied by the Employer/Engineer within seven (7) days of the receipt of such confirmation the same shall be deemed to be a Variation Orders for the purposes of this Sub-Clause.

10.2 **Valuation of Variations**

Variations shall be valued as follows:

- a) at a lump sum price agreed between the Parties, or
- b) where appropriate, at rates in the Contract, or
- c) in the absence of appropriate rates, the rates in the Contract shall be used as the basis for valuation, or failing which
- d) at appropriate new rates, as may be agreed or which the Engineer/Employer considers appropriate, or
- e) if the Engineer/Employer so instructs, at day work rates set out in the Contract Data for which the Contractor shall keep records of hours of labour and Contractor's Equipment, and of Materials, used.

10.3 Early Warning

The Contractor shall notify the Engineer/Employer in writing as soon as he is aware of any circumstance which may delay or disrupt the Works, or which may give rise to a claim for additional payment.

To the extent of the Contractor's failure to notify, which results to the Engineer/Employer being unable to keep all relevant records or not taking steps to minimize any delay, disruption, or Cost, or the value of any Variation, the Contractor's entitlement to extension of the Time for Completion or additional payment shall be reduced/rejected.

10.4. Valuation of Claims

If the Contractor incurs Cost as a result of any of the Employer's Risks, the Contractor shall be entitled to the amount of such Cost. If as a result of any Employer's Risk, it is necessary to change the Works, this shall be dealt with as a Variation subject to Contractor's notification for intention of claim to the Engineer/Employer within fourteen (14) days of the occurrence of cause.

10.5 Variation and Claim Procedure

The Contractor shall submit to the Engineer/Employer an itemised make-up of the value of variations and claims within twenty eight (28) days of the instruction or of the event giving rise to the claim. The Engineer/Employer shall check and if possible agree the value. In the absence of agreement, the Employer shall determine the value.

11. CONTRACT PRICE AND PAYMENT

11.1 (a) Terms of Payments

The amount due to the Contractor under any Interim Payment Certificate issued by the Engineer pursuant to this Clause, or to any other terms of the Contract, shall, subject to Clause 47, be paid by the Employer to

the Contractor within 30 days after such Interim Payment Certificate has been jointly verified by Employer and Contractor, or, in the case of the Final Certificate referred to in Sub Clause 60.8, within 60 days after such Final Payment Certificate has been jointly verified by Employer and Contractor; Provided that the Interim Payment shall be caused in 42 days and Final Payment in 60 days in case of foreign funded project. In the event of the failure of the Employer to make payment within the times stated, the Employer shall pay to the Contractor compensation at the 28 days rate of KIBOR+2% per annum in local currency and LIBOR+1% for foreign currency, upon all sums unpaid from the date by which the same should have been paid. The provisions of this Sub-Clause are without prejudice to the Contractor's entitlement under Clause 69.

(b) Valuation of the Works

The Works shall be valued as provided for in the Contract Data, subject to Clause 10.

11.2 **Monthly Statements**

The Contractor shall be entitled to be paid at monthly intervals:

- a) the value of the Works executed; and
- b) The percentage of the value of Materials and Plant reasonably delivered to the Site, as stated in the Contract Data, subject to any additions or deductions which may be due.

The Contractor shall submit each month to the Engineer/Employer a statement showing the amounts to which he considers himself entitled.

11.3 **Interim Payments**

Within a period not exceeding seven (7) days from the date of submission of a statement for interim payment by the Contractor, the Engineer shall verify the same and within a period not exceeding thirty (30) days from the said date of submission by the Contractor, the Employer shall pay to the Contractor the sum verified by the Engineer less retention money at the rate stated in the Contract Data.

11.4 **Retention**

Retention money shall be paid by the Employer to the Contractor within fourteen (14) days after either the expiry of the period stated in the Contract Data, or the remedying of notified defects, or the completion of outstanding work, all as referred to in Sub-Clause 9.1, which ever is the later.

11.5 **Final Payment**

Within twenty one (21) days from the date of issuance of the Maintenance Certificate the Contractor shall submit a final account to the Engineer to verify and the Engineer shall verify the same within fourteen (14) days from the date of submission and forward the same to the Employer together with any documentation reasonably required to enable the Employer to ascertain the final contract value.

Within sixty (60) days from the date of receipt of the verified final account from the Engineer, the Employer shall pay to the Contractor any amount due to the Contractor. While making such payment the Employer may, for reasons to be given to the Contractor in writing, withhold any part or parts of the verified amount.

11.6 **Currency**

Payment shall be in the currency stated in the Contract Data.

12. DEFAULT

12.1 **Default by Contractor**

If the Contractor abandons the Works, refuses or fails to comply with a valid instruction of the Engineer/Employer or fails to proceed expeditiously and without delay, or is, despite a written complaint, in breach of the Contract, the Employer may give notice referring to this Sub-Clause and stating the default.

If the Contractor has not taken all practicable steps to remedy the default within fourteen (14) days after receipt of the Employer's notice, the Employer may by a second notice given within a further twenty one (21) days, terminate the Contract. The Contractor shall then demobilise from the Site leaving behind any Contractor's Equipment which the Employer instructs, in the second notice, to be used for the completion of the Works at the risk and cost of the Contractor.

12.2 **Default by Employer**

If the Employer fails to pay in accordance with the Contract, or is, despite a written complaint, in breach of the Contract, the Contractor may give notice referring to this Sub-Clause and stating the default. If the default is not remedied within fourteen (14) days after the Employer's receipt of this notice, the Contractor may suspend the execution of all or parts of the Works.

If the default is not remedied within twenty eight (28) days after the Employer's receipt of the Contractor's notice, the Contractor may by a second notice given within a further twenty one (21) days, terminate the Contract. The Contractor shall then demobilize from the Site.

12.3 **Insolvency**

If a Party is declared insolvent under any applicable law, the other Party may by notice terminate the Contract immediately. The Contractor shall then demobilize

from the Site leaving behind, in the case of the Contractor's insolvency, any Contractor's Equipment which the Employer instructs in the notice is to be used for the completion of the Works.

12.4 **Payment upon Termination**

After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the Materials and Plant reasonably delivered to the Site, adjusted by the following:

- a) any sums to which the Contractor is entitled under Sub-Clause 10.4,
- b) any sums to which the Employer is entitled,
- c) if the Employer has terminated under Sub-Clause 12.1 or 12.3, the Employer shall be entitled to a sum equivalent to twenty percent (20%) of the value of parts of the Works not executed at the date of the termination, and
- d) if the Contractor has terminated under Sub-Clause 12.2 or 12.3, the Contractor shall be entitled to the cost of his demobilization together with a sum equivalent to ten percent (10%) of the value of parts of the Works not executed at the date of termination.

The net balance due shall be paid or repaid within twenty eight (28) days of the notice of termination.

13. RISKS AND RESPONSIBILITIES

13.1 Contractor's Care of the Works

Subject to Sub-Clause 9.1, the Contractor shall take full responsibility for the care of the Works from the Commencement Date until the date of the Employer's/Engineer's issuance of Certificate of Completion under Sub-Clause 8.2. Responsibility shall then pass to the Employer. If any loss or damage happens to the Works during the above period, the Contractor shall rectify such loss or damage so that the Works conform with the Contract.

Unless the loss or damage happens as a result of any of the Employer's Risks, the Contractor shall indemnify the Employer, or his agents against all claims loss, damage and expense arising out of the Works.

13.2 Force Majeure

If Force Majeure occurs, the Contractor shall notify the Engineer/Employer immediately. If necessary, the Contractor may suspend the execution of the Works and, to the extent agreed with the Employer demobilize the Contractor's Equipment.

If the event continues for a period of eighty four (84) days, either Party may then give notice of termination which shall take effect twenty eight (28) days after the

giving of the notice.

After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the Materials and Plant reasonably delivered to the Site, adjusted by the following:

- a) any sums to which the Contractor is entitled under Sub-Clause 10.4,
- b) the cost of his demobilization, and
- c) less any sums to which the Employer is entitled.

The net balance due shall be paid or repaid within thirty five (35) days of the notice of termination.

14. INSURANCE

14.1 **Arrangements**

The Contractor shall, prior to commencing the Works, effect insurances of the types, in the amounts and naming as insured the persons stipulated in the Contract Data except for items (a) to (e) and (i) of the Employer's Risks under Sub-Clause 6.1. The policies shall be issued by insurers and in terms approved by the Employer. The Contractor shall provide the Engineer/Employer with evidence that any required policy is in force and that the premiums have been paid.

14.2 **Default**

If the Contractor fails to effect or keep in force any of the insurances referred to in the previous Sub-Clause, or fails to provide satisfactory evidence, policies or receipts, the Employer may, without prejudice to any other right or remedy, effect insurance for the cover relevant to such as a default and pay the premiums due and recover the same plus a sum in percentage given in Contractor Data from any other amounts due to the Contractor.

15. RESOLUTION OF DISPUTES

15.1 Engineer's Decision

If a dispute of any kind whatsoever arises between the Employer and the Contractor in connection with the Works, the matter in dispute shall, in the first place, be referred in writing to the Engineer, with a copy to the other party. Such reference shall state that it is made pursuant to this Clause. No later than the twenty eight (28) days after the day on which he received such reference, the Engineer shall give notice of his decision to the Employer and the Contractor.

Unless the Contract has already been repudiated or terminated, the Contractor shall, in every case, continue to proceed with the Work with all due diligence, and the Contractor and the Employer shall give effect forthwith to every such decision

of the Engineer unless and until the same shall be revised, as hereinafter provided in an arbitral award.

15.2 **Notice of Dissatisfaction**

If a Party is dissatisfied with the decision of the Engineer or if no decision is given within the time set out in Sub-Clause 15.1 here above, the Party may give notice of dissatisfaction referring to this Sub-Clause within fourteen (14) days of receipt of the decision or the expiry of the time for the decision. If no notice of dissatisfaction is given within the specified time, the decision shall be final and binding on the Parties. If notice of dissatisfaction is given within the specified time, the decision shall be binding on the Parties who shall give effect to it without delay unless and until the decision of the Engineer is revised by an arbitrator.

15.3 **Arbitration**

A dispute which has been the subject of a notice of dissatisfaction shall be finally settled as per provisions of Arbitration Act 1940 (Act No. X of 1940) and Rules made thereunder and any statutory modifications thereto. Any hearing shall be held at the place specified in the Contract Data and in the language referred to in Sub-Clause 1.5.

16 INTEGRITY PACT

- 16.1 If the Contractor, or any of his Sub-Contractors, agents or servants is found to have violated or involved in violation of the Integrity Pact signed by the Contractor as Schedule-F to his Bid, then the Employer shall be entitled to:
 - (a) recover from the Contractor an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by the Contractor or any of his Sub-Contractors, agents or servants;
 - (b) terminate the Contract; and
 - (c) recover from the Contractor any loss or damage to the Employer as a result of such termination or of any other corrupt business practices of the Contractor or any of his Sub-Contractors, agents or servants.

On termination of the Contract under Sub-Para (b) of this Sub-Clause, the Contractor shall demobilize from the Site leaving behind Contractor's Equipment which the Employer instructs, in the termination notice, to be used for the completion of the Works at the risk and cost of the Contractor. Payment upon such termination shall be made under Sub-Clause 12.4, in accordance with Sub-Para (c) thereof, after having deducted the amounts due to the Employer under Sub-Para (a) and (c) of this Sub-Clause.

CONTRACT DATA

	lauses of tions of Contract Employer's Drawings, if any Tender Drawings
1.1.4	The Employer means University of Sahiwal, Sahiwal
1.1.5	The Contractor means Successful Bidder
1.1.7	Commencement Date means the date of issue of Engineer's Notice to Commence which shall be issued within fourteen (14) days of the signing of the Contract Agreement.
1.1.9	Time for Completion 90 days
1.1.20	Engineer
	M/s Development Consultancy Services (Pvt) Ltd, Islamabad
1.3	Documents forming the Contract listed in the order of priority:
(a)	The Contract Agreement
(b)	Letter of Acceptance
(c)	The completed Form of Bid
(d)	Contract Data
(e)	Conditions of Contract
(f)	The completed Schedules to Bid including Schedule of Prices
(g)	The Drawings, if any
(h)	The Specifications
2.1	Provision of Site: On the Commencement Date*

Authorised person :_____

3.1

3.2	Name and address of Engine Resident Engineer	er's/Employer's representative			
4.4	Performance Security @ 10 % of contract price:				
	Amount_	Validity			
	(Form: As provided under Star	ndard Forms* of these Documents)			
5.1	Requirements for Contractor	r's design (if any):			
	Specification Clause No's_				
7.2	Programme:				
	Time for submission: Within	fourteen (14) days of the Commencement Date.			
	Form of programme:	(Bar Chart/CPM/PERT or other)			
7.4	Amount payable due to failure of (10%) of sum stated in the Le	to complete shall be $\underline{0.01}$ % per day up to a maximum etter of Acceptance			
9.1	Period for remedying defects 120 days	;			
10.2	2 Variation procedure:				
	Nil				
11.1	Terms of Payments				
	As per actual executed at site				
11.3	Percentage of retention: fiv	re (05%)			
11.6	Currency of payment: Pak. R	upees			
14.1	Insurances: Type of				
	NIL				
14.2	Amount to be recovered				
	Premium plus	percent (%).			
15.3	Arbitration				
	Place of Arbitration Sahiwal				

STANDARD FORMS

(Note: Standard Forms provided in this document for securities are to be issued by a bank. In case the bidder chooses to issue a bond for accompanying his bid or performance of contract or receipt of advance, the relevant format shall be tailored accordingly without changing the spirit of the Forms of securities).

FORM OF BID SECURITY

(Bank Guarantee)

			Guarantee No.	
			Executed on	
(Lette	r by the	Guara	ntor to the Employer)	
Name	of Gua	rantor	(Scheduled Bank in Pakistan) with	
addres				
			Bidder) with	
addres	ss:			
Donal	Cum of	Coormi	ty (express in words and	
			ty (express in words and	
iiguic	··			
Bid R	eferenc		Date of Bid	
unto the sur our he preser	he m stated eirs, ex nts. COND tted	d above secutors ITION the	aid Principal, we the Guarantor above-named are held and fir, (hereinafter called The "Emp, for the payment of which sum well and truly to be made, we bind a daministrators and successors, jointly and severally, firmly OF THIS OBLIGATION IS SUCH, that whereas the Principal Companying Bid numbered and dated as about the companying Bid numbered and dated as a bout the companying Bid numbered and dated as a bout the companying Bid numbered and dated as a bout the companying Bid numbered and dated as a bout the companying Bid numbered and dated as a bout the companying Bid numbered and dated and dated as a bout the com	ployer") in d ourselves, y by these ncipal has ove for
and			(Furthermals of Bid) to the said	zmprojer,
	pal fur		a Bid Security in the above said sum to the Employer, cond	
(1)	that th	ne Bid S	Security shall remain valid for a period of twenty eight (28) day	vs beyond
` /			validity of the bid;	, 3
(2)	that ir	n the ev	ent of;	
		.1 15	the state of the s	
	(a)	the P	rincipal withdraws his Bid during the period of validity of Bid, or	or
	(b)		rincipal does not accept the correction of his Bid Price, pursuance 16.4 (b) of Instructions to Bidders, or	nt to Sub-
	(c)	failur	e of the successful bidder to	
		(i)	furnish the required Performance Security, in accordance Clause IB-21.1 of Instructions to Bidders, or	with Sub-
		(ii)	sign the proposed Contract Agreement in accordance v	with Sub-

Clauses IB-20.2 & 20.3 of Instructions to Bidders, the entire sum be paid immediately to the said Employer for delayed completion and $\frac{1}{2}$

not as penalty for the successful bidder's failure to perform.

NOW THEREFORE, if the successful bidder shall, within the period specified therefore, on the prescribed form presented to him for signature enter into a formal Contract Agreement with the said Employer in accordance with his Bid as accepted and furnish within fourteen (14) days of receipt of Letter of Acceptance, 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 then this obligation shall be void and of no effect, but otherwise to remain in full force and effect.

PROVIDED THAT the Guarantor shall forthwith pay to the Employer the said sum stated above 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 Guarantor at its address given above.

PROVIDED ALSO THAT the Employer shall be the sole and final judge for deciding whether the Principal 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 Guarantor shall pay without objection the sum 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 bounded Guarantor has executed the instrument under its seal on the date indicated above, the name and seal of the Guarantor being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

	Guarantor (Bank)
Witness:	1. Signature
1.	2. Name
Corporate Secretary (Seal)	3. Title
2	
(Name, Title & Address)	Corporate Guarantor (Seal)

FORM OF PERFORMANCE SECURITY (Bank Guarantee)

	Guarantee No
	Executed on
(Letter by the Guarantor to the Employer)	
Name of Guarantor (Scheduled Bank in Pakistan)	with
address:	-
Name of Principal (Contractor) with	
address:	
Penal Sum of Security (express in words and figures)	
Letter of Acceptance No	Dated
WNOW ALL MEN BY THESE PRESENTS of	Call Call BUILD
KNOW ALL MEN BY THESE PRESENTS, the Documents and above said Letter of Acceptance	
the request of the said Principal we, the Guaran	
	(hereinafter called the
Employer) in the penal sum of the amount stated	
and truly to be made to the said Employer, we bind	
and successors, jointly and severally, firmly by th	ese presents.
THE CONDITION OF THIS OBLIGATION	IS SUCH, that whereas the Principal has
accepted the Employer's above said I	Letter of Acceptance for
(Name	e of Contract) for the
(Name of	Project)
	110J000/.

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 the 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 9, Remedying Defects, 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
to the Employer without delay upon arguments and without requiring the I such demand any sum or sums up to the declaration that the Principal has ref	the Employer's first written demand without cavil or Employer to prove or to show grounds or reasons for e amount stated above, against the Employer's written used or failed to perform the obligations under the effected by the Guarantor to Employer's designated
whether the Principal (Contractor) has has defaulted in fulfilling said obligations or sums up to the amount stated forthwith and without any reference to the IN WITNESS WHEREOF, the above hits seal on the date indicated above,	oyer shall be the sole and final judge for deciding duly performed his obligations under the Contract or ons and the Guarantor shall pay without objection any above upon first written demand from the Employer the Principal or any other person. Sounded Guarantor has executed this Instrument under the name and corporate seal of the Guarantor being signed by its undersigned representative, pursuant to
Witness: 1	Guarantor (Bank) 1. Signature
Corporate Secretary (Seal)	 Name Title
2	
(Name, Title & Address)	Corporate Guarantor (Seal)

FORM OF CONTRACT AGREEMENT

			MENT (hereinafter between and				
"Emploother p		the one part a	and	(hereina	after called	d the "Contr	ractor") of the
execute	ed by the	e Contractor a	desirous that certain has accepted a d the remedying of	a Bid by the	e Contract		
NOW 1	this Agre	ement witness	seth as follows:				
1.		•	words and express to them in the Con				•
2.	relating	_	ments after incorps to Bidders, shall tent, viz:			-	_
	(a) T	The Letter of A	Acceptance;				
			l Form of Bid alon	g with Sche	dules to B	id;	
	(c) (Conditions of	Contract & Contra	ct Data;			
		•	hedule of Prices;				
		The Specificat					
	(f) T	The Drawings					
3.			ne payments to be	•	•	•	

- 3. 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 within the provisions of the Contract.
- 4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works as per provisions of 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.

Signature of the Contactor	Signature of the Employer
(Seal)	(Seal)
Signed, Sealed and Delivered in the presence of:	
Witness:	Witness:
(Name, Title and Address)	(Name, Title and Address)

IN WITNESS WHEREOF the parties hereto have caused this Contract Agreement to be executed on the day, month and year first before written in accordance with their respective

laws.

FORM OF BANK GUARANTEE FOR ADVANCE PAYMENT

	Guarantee No
	Executed on
(Letter by the Guarantor to the Employer)	

wherea: called th	S the e Employer) has entered int	o a Contract for _ (hereinafter
		(Particulars of Contract), with
		_ (hereinafter called the Contractor).
AND WI	HEREAS the Employer has a	agreed to advance to the Contractor, at the Contractor's
request,	an amount of Rs	Rupees)
which an	nount shall be advanced to the	Contractor as per provisions of the Contract.
AND Will (hereinaft Employer said Guar NOW Tradvance fulfillmer shall be I Notice in aforesaid on such funder this Guar account of the said such fulfillmer shall be I Notice in aforesaid on such funder this Guaraccount of the said such fulfillmer shall be I Notice in aforesaid on such fulfillmer shall be I Notice in a notice fulfillmer shall be I Notice	payment for the performance of HEREAS	isked the Contractor to furnish Guarantee to secure the of his obligations under the said Contract. (Scheduled Bank) he request of the Contractor and in consideration of the endvance to the Contractor, has agreed to furnish the thereby guarantees that the Contractor shall use the attioned Contract and if he fails, and commits default in for which the advance payment is made, the Guarantor ment not exceeding the aforementioned amount. Thich the Employer shall be the sole and final judge, as re, shall be given by the Employer to the Guarantor, and a shall be made by the Guarantor of all sums then due ence to the Contractor and without any objection.
	•	any claims by registered letter, telegram, telex or
	erstood that you will return th ount to be claimed hereunder.	is Guarantee to us on expiry or after settlement of the
		Guarantor (Scheduled Bank)
Witness:		1. Signature
	Corporate Secretary (Seal)	 Name Title
2.	·	_
	(Name, Title & Address)	Corporate Guarantor (Seal)

SPECIAL PROVISIONS

1. AWS - American Welding Society (USA)

BS - British Standards (UK)
CP - Codes of practice (UK)
PS - Pakistan Standards (Pak)

SSPC - Steel Structures Painting Council (USA)

UBC - Uniform Building Code 9USA0

USBR - United States Bureau of Reclamation (USA)

If the Contractor, at any time and for any reason, wishes to deviate from the Above standards or desires to use material or equipment not covered by the above standards, he shall stat the exact nature of the changes, the reason for making the change and shall submit complete specifications of the materials and equipment's to the Engineer for approval.

2. Standards other than these Specified

Where requirements for materials or equipment are specified by reference to a standard which has its origin in one country, it is not the intention to restrict the requirements solely to that standard and that country. Other standards, including standards of other countries, will be accepted provided the requirements thereof, in the sole option of the Engineer, are at least equal to the requirements of the standard specified. The Contractor may propose to the Engineer an equivalent standard other than that specified, in which case he shall submit the proposed standard and all other information required and shall submit written proof that his proposed standard is equivalent in all significant respects to the standard specified. All submissions must be made in the English language.

3. Codes and Standards at Site.

The Contractor shall supply and have at his site office :-

- a. Copies of all latest editions of codes and standards referred to in these Specifications or equivalent codes and standards as approved by the Engineer.
- b. Catalogues and published, Recommendations from manufacturers supplying products and materials for the project.
- c. The Contractor shall provide manufacturer's or supplier's materials which must meet the requirements of a specific code or standard as stated in these Specifications.

4. MANUFACTURER'S RECOMMENDATIONS

Installation of manufacture ditems shall be in accordance with procedures recommended by the manufacturer or as approved by the Engineer.

5. UNITS OF MEASUREMENTS

Both FPS and MKS System of Units shall be used throughout the Project, as mentioned.

6. PLANT, EQUIPMENT AND TOOLS

The Contractor shall provide at his cost modern plant, equipment and tools as specified in TORs issued for renovation works in strict compliance with the requirements of the project.

7. STORAGE & HANDLING FACILITIES

The Contractor shall make his own arrangements for providing the necessary space for the storage of plant, equipment and materials and for Contractor's temporary office, in and around the site of works, during the currency of the Contract.

8. FIELD LABORATORY AND TESTING

8.1 General

The Contractor shall provide and maintain a field laboratory quipped with approved equipment to perform all the tests required by the Engineer. The quality control testing shall be performed by the Contractor's competent personnel in accordance with a site testing and quality control programme to be established by the Contractor and approved by the Engineer. The Engineer may however, require certain tests to be performed in any other laboratory designated by him.

The Contractor shall provide laboratory helpers to the Engineer for testing. The Field Laboratory, including all equipment and staff shall be placed at the disposal and direction of the Engineer during the Contract.

The Contractor shall keep a complete record of all quality tests performed on site.

All quality control and tests shall be carried out in accordance with applicable standards and codes.

8.2. Field Laboratory Equipment Requirements

The Laboratory shall be equipped with new unused and latest Equipment to perform tests as per Technical Specifications and General Conditions of Contract. Additional equipment/materials shall be supplied by the Contractor as and when required by the Engineer to perform any specified test, at no additional cost to the Employer.

8.3. Testing Laboratory Certificates

The Engineer may accept a certificate from a commercial testing laboratory, satisfactory to him, certifying that the product has been tested within a period, acceptable to the Engineer and that it conforms to the requirements of these Specifications.

8.4. Method of Payment

The cost of providing running and maintenance of the laboratory, equipment, materials and staff, testing charges for materials supplied by the Employer and all other tests to be performed in any other laboratory designated by the Engineer shall be deemed to be included in the price quoted by the Contractor and no separate claim for payment on this account shall be entertained by the Engineer. Furthermore the cost of any additional laboratory, field and shop tests required through the resubmission of samples because of failure of compliance with Specifications shall be borne by the Contractor.

In case the Contractor does not provide the specified equipment and testing facility, cost of testing plus 100 percent overheads shall be recovered from his bills

9. SURVEYING INSTRUMENTS

9.1. General

The minimum quantity of survey equipment is stated below which shall be available with the Contractor at sit of Works along with qualified Surveyors and Survey Helpers. The equipment shall be maintained throughout the Contract Period and replace by the Contractor in case of damage or loss. The survey equipment shall be made available to the Engineer when requested. All surveying equipment shall be in good working condition.

9.2. Surveying Equipment Required.

The Contractor shall provide and maintain the miscellaneous tools, equipment and materials required in surveying As directed by the Engineer.

10. APPROVAL OF MATERIALS AND PLANT

10.1 Quality of Materials

All materials, fixtures, fittings, supplies and plant furnished under the Contract shall be new and unused, standard first grade quality and for the best workmanship and design. No inferior or lowgrade materials, supplies or articles will be either approved or accepted, and all work of assembly and construction shall be done in a first-class and workmanlike manner. In asking for prices for materials intended for delivery to the Site incorporation the Works under any portion of these Specifications, the Contractor shall provide the manufacturer or supplier with complete information as may be necessary to assure compliance to this Clause and, in every case, he shall quote this Clause in full to each such manufacturer or supplier.

10.2 Submission of Samples and Data

- 10.2.1. The Contractor shall; furnish for approval of the Engineer with reasonable promptness all samples as directed by the Engineer or specifically called for in the Specifications and in accordance with the time schedule provided in the schedule of submittals. The Engineer shall check and approve such samples with reasonable promptness only for conformance with the design concept of the Works and for compliance with the information given in the Contract Documents. All work shall be in accordance with approved samples.
- 10.2.2. Samples shall be furnished so as no to delay fabrication, allowing the reasonable time for consideration of the sample submitted.
- 10.2.3. Each sample shall be properly labeled with the name and quality of the material, manufacturer's name, name of the project, the Contractor's name and the date of submission, and the Specifications Article number to which the sample refers.
- 10.2.4. The manufacturer's installation directions shall he provided with
- each sample. The Contractor, shall pay all transportation costs and deliver samples to the Engineer's office, Site or testing laboratory as directed by the Engineer.
- 10.2.5. Samples shall be of adequate size to permit proper evaluation of the material by the Engineer. Where variations in color, texture, dimensions or other characteristics are to be expected, the Contractor shall submit samples showing the maximum rang of variation. Materials exceeding the range of variation of the approved samples shall not be used on the

Work.

- 10.2.6. In order to permit coordinated selection of colours and finishes, the Contractor shall deliver samples of all related items to the Engineer at one time. Samples of such materials will not be approved until all related samples have been submitted.
- 10.2.7. If both Shop Drawings and samples are required for the same item, the Engineer may require both to be submitted before approving either.
- 10.2.8. The Contractor shall erect Mock-up samples of finished items where specifically called for in the documents or as directed by the Engineer. The Mock-up samples shall be preserved/protected by the Contractor till the end of the project or as directed by the Engineer.
- 10.2.9. No acceptance or approval of any Shop Drawings or sample, or any indication or request by the Engineer on any Shop Drawings shall constitute an authorization fro any increase in the Contract Sum.

10.3. Inspection.

All material and Plant furnished and all work performed under this Contract will be subject to inspection by the Engineer at al times and in all states of completion both off-Site and on-Site. The Contractor shall furnish promptly without additional charge, all facilities, labour and materials reasonably needed for performing such inspection and testing as may be required by the Engineer.

10.4 Approved Sample At Site

The Contractor shall, at all times, keep on the Site approved samples. All such samples shall be made available to the Engineer as and when required.

11 . Bar Bending Schedule

Bar bending schedule (reinforcement bars) schedule of all structural drawings shall be prepared by the Contractor and submitted in triplicate to the Engineer for approval.

12. Drawings

12.1 Bid Drawings

Bid Drawings issued with the Bidding Documents, called the Bid Drawings, show scope of the work to be performed by the Contractor. The Drawings are generally in sufficient detail so as to be used as a basis for construction, fabrication and for placing orders for materials subject to corrections based on the future issue, of supplementary Drawings as provided under sub-clause 12.2 thereof.

12.2 Construction Drawings, Supplementary Drawings

After award of Contract, the Bid Drawings will automatically become Construction Drawings after approval of the Engineer, until and unless any necessary modification is required to be made by the Engineer.

The Engineer shall have authority to issue to the Contractor, from time to time, such supplementary Drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the Works and remedying of any defects therein. The Contractor shall follow these drawings.

When additional information regarding the geological formations or other conditions becomes available, the Engineer may find it desirable to change dimensions or design of one or more of the features of the Works to conform to the newly disclosed conditions. The Engineer reserves the right to make such reasonable changes, and Contractor's oper4ations shall be conducted so as to accommodate any such reasonable changes in the Works.

12.3 Not used

12.4 Definition of Term Drawings

The term Drawings as used in the Specifications means the Drawings referred in Clauses 12. and 12.2 above.

12.5 Checking of Drawings

The Contractor shall check all Drawings carefully as soon as practicable after receipt thereof, and shall promptly notify the Engineer of any errors discovered.

12.6 Copies of Drawings

Drawings will be issued to the Contractor as described below.

12.6.1 Bid Drawings (at Construction stage)

Three (3) sets of the Bid Drawings will be issued to the Contractor at the time of Construction free of charge. Additional sets will be provided at cost of reproduction to be borne by the Contractor upon written request of the Contractor.

12.6.2 Supplementary Drawings

Three (3) Prints of each supplementary Drawing will be issued to the Contractor free of charge. Additional sets will be provided at cost of reproduction to be borne by the Contractor upon written request of the Contractor.

12.6.3 Drawings to Be Furnished By the Contractor.

The Contractor shall submit to the Engineer for review, such drawings as are required under the Contract, sufficiently in advance of the work intended to be executed.

12.6.4 Reinforcement Drawings

Reinforcement placement drawings and bar bending schedules (to be provided by the Contractor as per clause 11 above) of all RCC work shall be prepared by the Contractor and submitted in triplicate to the Engineer for approval, sufficiently in advance of the works in which they are intended to be used.

12.6.5 Shop Drawings

i.The Contractor shall submit to the Engineer for review three (3) copies of all drawings to be issued for setting out, fabrication, supply order and construction, based on data, requirements, dimensions, details, codes, standards, and design provided in the drawings issued by the Engineer. Such Drawings shall be submitted at least twenty-eight (28) before they are required for use. The Engineer may notify the Contractor that a drawing fails to comply with the relevant requirement of the Contractor, in which case the drawing shall be rectified and resubmitted for approval at the Contractor's cost. Fabrication or construction shall not commence on any part of the Works until the shop drawings or construction drawings for that part of the Works have been approved by the Engineer.

The Works shall be executed in accordance with the drawings as approved by the Engineer. If the Contractor wishes to modify any approved drawings, he shall immediately notify the Engineer and submit revised drawings for approval. If the Engineer instructs that further drawings are necessary for executing the works, the Contractor shall prepare such drawings and submit them for approval

The Contractor at his cost shall rectify errors, omission, ambiguities, inadequacies and other defects.

Approval by the Engineer, in accordance with these paragraphs, shall not relieve the Contractor of any of his responsibilities under the Contract.

- (b) The shop drawings shall be properly identified indicating the part of the Works, the name of the contractor/ supplier etc., the date of preparation and the dates of all revisions. The Shop Drawings shall be complete and shall show the design dimensions, proposed materials to be used, finishes, type of shop paint and all other details in connection thereto.
- (c) Where adjoining work requires shop drawings, the Contractor shall prepare and submit composite shop drawings, which shall show and define the work under all affected trades. If the Contractor executes work before coordinating with other trades so as to cause interference with work of those trades, he shall make changes necessary to correct the conditions without extra cost to the Employer.
- (d) No changes shall be made by the Contractor in the resubmitted shop drawings in excess of the corrections spelled out by the Engineer and in a separate note on the shop drawings.

No work in the shop shall be started and no material or plant ordered until the Engineer has approved the shop drawings. It shall be the responsibility of the Contractor to submit the shop drawings on a schedule that allows reasonable time for checking and approval and subsequent fabrication. Failure to submit shop drawings in ample time for checking, correcting, and rechecking will not justify extension of time for completion of the Works.

(e) The Contractor shall also check and verify all site measurements whenever requested by other Specialist Contractors or by other Sub-Contractors to enable them to prepare their own shop drawings

and pass on the information with sufficient promptness, so as not to delay the work in any way. A copy of all such information passed on shall be given to the Engineer.

12.6.6 As-Built Drawings

The Contractor shall, at all times, keep on Site a separate set of prints of all drawings on which all significant changes between the work shown on the Drawings and that which is actually constructed, shall be noted neatly, accurately and promptly as the work progresses. The Subcontractor(s) for plumbing, mechanical and electrical shall, at all times, keep on Site, a separate set of prints of the drawings (showing their parts of the Works) on which all significant changes between the work shown on the Drawings and that which is actually constructed, shall be noted neatly, and promptly as the work progresses. Such drawings shall show the exact physical location and configuration of the works as actually installed.

The Contractor shall, within fourteen (14) days of issuance of Taking-Over Certificate for whole of the Works, furnish to the Engineer for his approval two (2) copies of such marked up drawings. One (1) copy of each of the marked up drawings approved the Engineer shall be returned to the Contractor by the Engineer and these shall be used for the preparation of the As – Built Drawings.

The Contractor shall furnish to the Engineer six (6) complete sets and one reproducible copy of all As – Built Drawings within twenty eight (28) days of receipt of drawings stated above, from the Engineer.

13. PROTECTION OF THE WORKS

The Contractor shall whenever necessary cover up and protect the works from weather and damage by his own or other workmen performing subsequent operation. The Contractor shall provide all necessary dustsheets, barriers and guard rails and clear away the same at completion.

14. RESTORATION AND CLEARING

Upon completion of the works the Contractor shall restore all items covered by the Contract to the satisfaction of the Engineer.

The Contractor shall do regular cleaning and clear away all rubbish and excess materials that may accumulate from time to time on completion and before handing over. Upon completion of the works he shall obliterate all signs of temporary construction facilities such as work areas, structures, foundation of temporary structures, stock piles of excess or waste materials, or any other vestiges of construction, as directed by the Engineer. All buildings shall be cleaned; floors and paving scrubbed and works and site shall be left in a clean and satisfactory state for immediate use and occupation. Care shall be taken not to use any cleaning materials, which may cause damage to the surface to be cleaned.

The Contractor shall also take all necessary precautions to keep the works and site free from vermin during construction and he shall leave the works vermin free on completion. Application of pest control agents shall not commence until the specific product, name, method and extent of application have been submitted to and approved of by the Engineer.

15.SITE OFFICE AND TEMPORARY FACILITIES TO BE PROVIDED BYTHE CONTRACTOR

15.1 Contractor's Office, Facilities Etc.

The Contractor shall establish and maintain a Site Office. The Contractor shall provide all facilities

in connection with the execution, completion, of the Works, remedying defects therein and maintenance of the utilities services. The facilities shall not be limited to the Contractor's Site Office, labour camps, work yard and storage areas, temporary water supply, waste water disposal, temporary electricity, medical unit, temporary roads, fire protection and fire fighting equipment etc. The Contractor shall be solely responsible for arranging all utilities and the Contractor shall setup, maintain and operate an architectural and engineering facility a site with adequate number of technical and support staff as well as equipment required for particular nature of job covered under the Contract to prepare drawings/shop drawings for approval of the Engineer. The Contractor shall make arrangements for his own camp, workshops, yards, storage areas, and areas for erection of equipment, offices.

15.2 Consultant's, Employer Office, Facilities at Site of Work.

• Day to day office stationary for site office As required

15.3 Temporary Roads

The Contractor shall prepare and maintain such temporary roads as may be necessary, from the site to the nearest road and also within the plot. Such roads shall be positioned strictly in accordance with the Engineer's instructions and the Contractor shall reduce or control any dust nuisance by regularly spraying water and compaction as directed.

15.4 Temporary Services

15.4.1 Temporary Water Supply

The Contractor shall supply in sufficient quantity all necessary potable and other water for construction purposes for all trades at points within a reasonable distance of any building being constructed. The Contractor shall make arrangements and pay charges for water service installation, maintenance and removal thereof, and pay the costs of water for all trades.

At completion of the work, the temporary water services equipment and piping shall be remove by the Contractor at his own expense.

15.4.2 Temporary Electricity

The Contractor shall make all the necessary arrangements for a temporary electricity service, pay all expense in connection with the installation, operation and removal thereof and pay the costs of electricity consumed by all trades. If the Contractor is unable to arrange a temporary electrical connection then he shall arrange and furnish an Electrical Power Generating set at site and maintain the generating set in perfect working condition through-out the duration of Contract. The generating power of the set shall be sufficient to operate all plant and equipment as well as the camps and offices of the Contractor and the offices of the Engineer/Employer, during construction at site. Should the set fail to meet the required demand at site or fail to function or operate, the Contractor shall immediately replace the same with other generating set/sets to the satisfaction of the Employer as well as the Engineer.

A temporary lighting system shall be furnished installed and maintained by the Contractor as required to satisfy the minimum requirements for safety and security and to the satisfaction of the Engineer.

At completion of construction work, temporary electricity services shall be removed by the Contractor at his own expenses.

15.4.3 Waste Disposal

The Contractor shall make such temporary provisions as may be required in order to dispose of any chemicals, fuels, oils, grease, bituminous material, waste and soil waste and the like without

Causing pollution to either the site or the environment. Disposal of any materials, wastes, effluent, garbage, oil, grease, chemicals and the like shall be in areas specified by the concerned local authority proposed by the Contractor and subject to the approval for the Engineer. If any waste material is dumped in unauthorized areas the Contractor shall remove the material and restore the area to the condition of the adjacent undisturbed area. If necessary, contaminated ground shall be excavated. Disposed off as directed by the Engineer and replaced with suitable fill material compacted and finished with topsoil all at the expense of the Contractor.

15.4.4 Fire Protection

The Contractor shall provide and maintain adequate fire protection in the form of barrels of water with buckets, fire bucket tanks, fire extinguisher, or other effective means ready for instant use, distributed around the project and in and about temporary inflammable structures during construction of the works.

Gasoline and other flammable liquids shall be stored in and dispensed from safety containers approved by the Engineer and storage shall not be within building.

Torch cutting and welding operations performed by the Contractor shall have the approval of the Engineer before such work is started and a chemical extinguisher is to be available at the location where such work is in progress.

The Contractor shall follow the instructions and specifications of the Civil Defense Department or any other local department concerned with such activities.

15.5 Sign Board

The Contractor shall erect and maintain at the Site in a location to be approved by the Engineer one (01) Sign Boards (as per sketch) of dimension approve the Engineer. The Sign Boards shall be made of metal. It shall be mounted on steel posts securely anchored and braced. The Contractor shall paint on the Sign Boards, the name of the Works, and the names of the Employer, Engineer and the Contractor both in English and Urdu Languages.

15.6 Site Facilities to Be Provided By the Contractor

15.7.1 General

Without prejudice to the generally of the various clauses of the Contract, particular attention is drawn to the obligation of the Contractor to make his own arrangement at his own expense for the following.

Labour Camps and Staff Residences

The Contractor shall provide, operate and maintain labour camps and staff residences and are required for the proper and efficient progress of the work to house his own employees. For the purposes of operation and maintenance of the Camps and Residences the Contractor shall comply with the rules of Pakistan Labour Camp Rules 1960 and all other applicable provisions of the Pakistan Labour Laws.

15.7.2 Administrative and Field Office

The Contractor shall provide, operate and maintain administrative and field offices required for his staff and would be responsible for Operation and Maintenance, furniture, equipment, appliances, janitor services and security of the same.

15.7.3 Work yard and Storage Areas

The Contractor shall provide, operate and maintain all sheds, fencing, foundations and all above ground structures required to store material or equipment brought on to the site by him. The Contractor shall be responsible for the security of his entire camps, residence, site and field offices work yard and storage area.

15.7.4 Water Supply, Sewerage System and Electricity

The Contractor shall make his own arrangement, at his own expense for provision, operation and maintenance of electric supply, reasonable supplies of raw and potable water and sewerage system at the site of works and his labour camps, staff residences and offices. The Contractor shall pay all fees, and charges (including bills) of whatsoever nature to the concerned departments (if any) in order to procure connections of the above facilities and thereafter using these facilities. If the Contractor is un-able to arrange a temporary electrical connection then he shall arrange and furnish an Electric Power Generating set (with sufficient generating capacity to meet the required demand of electricity) at site and maintain the generating set in perfect working condition through-out the duration of Contract.

15.7.5 Medical Care

The Contractor shall arrange provision of adequate medical facilities for his employees.

Adequate equipped and properly staffed first aid stations or dispensaries shall be provided by the Contractor at camps and other strategic locations, to administer first aid treatment at all times free of charge to all persons on the Site, including personnel of the Engineer and the Employer. The nature, number and location of facilities furnished and the Contractor's staff for administering

first-aid treatment shall meet the requirements of the Health Services of the Government of Pakistan and of Section III of the Manual "Safety Requirements" for Construction by Contract", published by the Employer, and shall be subject to approval by the Engineer.

15.7.6 The Contractor shall also be responsible for providing at his own cost other facilities for his own staff and labour such as educational, recreational, transport, telephone, and catering if required.

16 CONSTRUCTION PROCEDUURES

The Contractor shall advise the Engineer of proposed construction procedures in accordance with the General Conditions of Contract.

I the Engineer shall see that the work progress is slow in such a way that the work will not be completed in the time specified, then he shall order the Contractor to work overtime or in more shifts and the Contractor shall obey these orders without any additional payments and without any objections or request for compensation.

17. NOTIFICATION TO ENGINEER

The Engineer shall be notified weekly in writing of the nature and location of the Works the Contractor intends to perform the next week so as to enable necessary inspection and measurement to be carried out. The Engineer may, if necessary, direct that longer notice be given of certain operations.

18. NIGHT WORK

When work is done at night the Contractor shall maintain from sunset to sunrise such lights on or about his work and plant as the Engineer may deem necessary for the proper observations of the work and the efficient execution thereof.

19. WEATHER

No work is to be undertaken when, in the opinion of the Engineer, the weather is so unsuitable that proper protection of the work cannot be ensured.

20. CO-ORDINATION WITH OTHER CONTRACTORS

It shall be the responsibility of the Contractor to keep-up good relations with other Contractors employed on site by the Employer. The Contractor shall cooperate and coordinate his work with that of the other Contractors working at the Site, to whatever extent may be necessary to complete the Project in accordance with approved program of the Works and in accordance with the Engineer's instructions. Should a disagreement or dispute arise between the Contractor and other Contractors, the same shall be referred without delay to the Engineer for his decision. Upon such decision, the Contractor shall proceed with the work in accordance therewith. In case the access to the works of other contractors is through the Site area of the Contractor, the Contractor shall coordinate with and permit all reasonable access to other Contractors.

21. ACCIDENT PREVENTION, SAFETY MEASURES AND PROTECTION EQUIPMENT.

The Contractor shall comply and enforce compliance by all his sub-contractors with the highest standards of safety and accident prevention in accordance with international standards and in compliance with all applicable laws, ordinances and statutory provisions.

The Contractor shall provide and maintain all requisite barriers, fences, warning signs, lights and other safety precautions as required for the protection of persons and property on or adjacent to the site shall be provided at the Contractor's cost.

The Contractor shall provide and maintain all false work, scaffolding and handrails which shall be well constructed and secured at all times. Where over head work is being carried out, warning signs shall be installed at ground level clearly warning of the overhead work.

All warning signs shall be in two languages, English and Urdu, and shall at all times be maintained in a clean and legible condition, to the satisfaction of the Engineer.

As the work at site is expected to be carried out round the clock, the Contractor shall keep and maintain at all times a transport facility to move the patients to the hospital in case of an emergency.

Safety netting shall be provided at all levels where work is in progress, all around the building.

22. ENVIROMENTAL PROTECTION

The Contractor shall exercise due care to protect the natural landscape and shall conduct his construction operations so as to prevent any unnecessary destruction, scarring or defacing of the natural surroundings in the vicinity of the Works. Except where clearing is required for the Permanent Works, approved construction roads and the Temporary Works, and for excavation operations, all trees and native vegetation shall be preserved and shall be protected from damage which may be caused by the Contractor's construction operations and equipment. On completion of the Works, all work areas shall be smoothed and graded in a manner to conform to natural appearance of the landscape. Where unnecessary destruction, scarring,

damage or defacing may occur as a result of the Contractor's operations, it shall be repaired, replanted, or otherwise corrected as directed by the Engineer at no additional cost to the Engineer.

23. PAYMENT OF WORK

No payment shall be made for the works involved within the scope of this section of specification unless otherwise specifically stated in the Bills of Quantities or herein. The cost thereof shall be deemed to have been included in the total price quoted by the Contractor.

24. SPECIAL CIRCUMSTANCES

In case of any ambiguity in these terms & conditions or in case such situation arises which is not covered by these conditions, than the PEC standard bidding documents will be used to address the situation.

LIST OF APPROVED MANUFACTURERS

(The manufacturer references provided here below are indicative of minimum quality and specifications required for such materials. Any other manufacturer items having at least the same quality and specifications are acceptable subject to the approval of the Consultants)

The Contractor should note that only material from those manufacturers specified in the list of approved manufacturers shall be allowed to be used on this Project. The Contractor shall submit literature/catalogue/samples etc. of all the items from each of the specified manufacturer to the Consultants who shall then decide and approve the sample and the manufacturer. Where the item involves any finishes such as paints, external coatings, etc. the Contractor shall erect mock-up samples of the specified manufacturers for the selection and approval of the Consultants.

The responsibility lies with the Contractor for establishing the genuineness of any material/product/item for its make and origin as specified below

CIVIL WORKS

Sr. No.	Item		Manufacturer(s)/Supplier(s)
1	Brick, Sand, fair face Brick (Gutka) Crushed Stone Aggregate		Source as approved by the "Engineer".
2	Crush	i ii iii	Margla Chanute Sakhi sarwar
3	Steel Reinforcement	i ii	Karachi Steel Re-rolling , Islamabad Fazal Steel Re-rolling , Islamabad or Approved Equivalent
4	Cement	i ii iii	Fauji Cement D.G Khan Cement Best way Cement or Approved Equivalent
5	Paint & Vanish	i	NIPPON or Approved Equivalent
6	Hardware Stays and Handles	i ii iii	Pistol Sitara Milas or Approved Equivalent
7	Mirror (looking glass)	i ii	Best quality (Imported) available as approved by the Engineer
8	Glass for Windows & Ventilators (Local)		Best quality available as approved by the Engineer
9	High performance Glass for Windows, Ventilators , Curtain Wall etc (Imported)	i ii iii	Guardian Pilkington AGC
10	Concrete Pavers/ Kerb stones etc	i ii iii	Tuff Pavers Izhar NLC-PERL or Approved Equivalent

DVC False Cailing	: ::	Elanbant
PVC False Ceiling	1 11	Elephant
		Gypsemna
N + 1 C '1'		or Approved Equivalent
Metal Ceiling	1 11 111	TALENT
		DAMPA Industries
		OWA Industries or
		Approved Equivalent
Admixture	1 11	Fast Came
		Silver Streak (Pvt) Ltd
		Or Approved Equivalent
Termite Proofing	i ii iii	Biflex
		FMC or
		Approved Equivalent
Aluminum doors &	i ii	Pakistan cables (ALUMINX)
windows		or Approved Equivalent
Ceramic / porcelain Tiles	i ii	Shabir
(local)		Master or Approved Equivalent
Ceramic / porcelain Tiles	i ii	RAK
		MML or Approved Equivalent
		As per technical specifications and as
r ···		approved by the Engineer
Rituminous Membrane	i ii	High Grip
2114111110 415 17121111014110	1 11	Roof Line or Approved Equivalent
ACP sheet	i ii	HOWSOL (Korea)
rer sheet	1 11	ALUPEX (UAE)
		or Approved Equivalent
DI LIMBING WODES		or Approved Equivalent
	i ii	IIL Jamal
G.I.I II ES	1 11	iii Jamai
Pines and fittings in	i ii	KELEN (Austria)
	1 11	Marley (UK)
		or Approved Equivalent
	; ;;	HE China
O.I. Pipes (specials)	1 11	TG China
Cata Valore and Claire		
	1 11	Anwar
varves		Mughal
		or Approved Equivalent
	1 11	Apline
Fittings and Fixtures		Теери
		or Approved Equivalent
Asbestos Pipe	1 11	Dadex
		or Approved Equivalent
	i ii iii	VODA (UK) (Tetra Flow)
Fittings		Marley (UK)
		or Approved Equivalent
RCC Pipes		As per technical specifications and as
•		approved by the Engineer
WC, WHB. Vanity bowls	i ii iii	Porta
•	, , ,	Forte
		Or approved equivalent
		1 1
Camitama Ditti	: **	T-:1
Sanitary Fitting	i ii	Faisal -
Sanitary Fitting	i ii	Faisal Master
	Ceramic / porcelain Tiles	Metal Ceiling i iii iii Admixture i iii Termite Proofing i iii iii Aluminum doors & i ii windows Ceramic / porcelain Tiles i ii (local) Ceramic / porcelain Tiles i iii (Imported) RCC Pipes Bituminous Membrane i iii ACP sheet i iii PLUMBING WORKS G.I.PIPES i iii Pipes and fittings in Polypropylene Random (PPR) G.I. Pipes (specials) i ii Gate Valves and Sluice valves Cast Iron (spun) pipes & i ii Cast Iron (spun) pipes & i iii IPVC Pipes and Fixtures Asbestos Pipe i iii uPVC Pipes and i iii iiii RCC Pipes WC, WHB, Vanity bowls i iii iii

11	Pumps	i ii iii	KSB
			HMA
			or approved equivalent

ELECTR	ICAL WORKS		
1	Light Fixture	i ii	Sunlight Perlite or Approved Equivalent
2	Cables and Wires	i ii	Pakistan Cables Fast Cables or Approved Equivalent
3	PVC Conduit accessories	i ii	Dadex Shavyl or Approved Equivalent
4	MCCB, MCB,s	i ii	Teraski (Japan) Schneider or Approved Equivalent
5	Fans	i ii iii	Pak Millat Lahore or Approved Equivalent
6	Distribution Boards Main and Sub-Main Panel Boards	i ii iii	Tecmens Power Teck or Approved Equivalent
7	Switches Sockets etc	i ii	Bosch Clipsal or Approved Equivalent
8	Back Boxes, Pull Boxes etc	i ii	Bosch Clipsal or Approved Equivalent
9	Telephone Cables	i ii	Pakistan Cables Fast Cables or Approved Equivalent
10	Telephone junction	i ii iii iv v	EES Techman Libra JEI Electrech or Approved Equivalent
11	Generator Set	i ii iii iv	Caterpillar Perkens F.G Wilson or Approved Equivalent
12	Transformers	i ii iii	Elmitek PEL or Approved Equivalent
13	Coaxial Cables	i ii iii	Pakistan Cables Fast Cables 2M Kablo or Approved Equivalent

BILL OF QUANTITIES (BOQ)
Note: All quoted rates must be inclusive of all applicable taxes etc. except PRA

BILL OF QUANTITIES FOR INSTALLATION OF 230 KW SOLAR SYSTEM AT UNIVERSITY OF SAHIWAL, DISTRICT SHIWAL

SUMMARY OF COST

Sr. No.	Description	Total (Rs.)
1	Academic Block-1 (110 Kw on Grid System)	
2	Academic Block-2 (110 on Grid System)	
3	VC House (10 KW Hybrid System)	
4	TOTAL (Rs.)	
5	Tax imposed by (PRA) @ 05 % on Sr.4 (Rs.)	
	Grand Total (4+5) (Rs.)	

Contractor's Signature	Consultant's Signature			
Client's Signature				
1	2			
3.	4			
5	6			
7				

BILL OF QUANTITIES FOR INSTALLATION OF SOLAR SYSTEM AT UNIVERSITY OF SAHIWAL, DISTRICT SHIWAL

ACADEMIC BLOCK-1

Sr.	110 KW ON GRID SYSTEM	Unit	Qty	Rate	Rate in	Amount
#	Description	Offic	Qty	(Rs.)	Words	(Rs.)
1	PV Modules (580-585 W)					
	Providing & installation of Jinko Solar / Canadian - Tier 1 or Equivalent, Grade A BF Mono perc, Half Cut PV Modules complete in all respect as per drawing/design, technical specifications and instruction of the Engineer incharge.	Each	190			
2	Inverters: Providing & installation of Growatt / KNOX or Equivalent (100 KW) Grid Tied Maintenance Free Three Phase Inverter Wireless remote monitoring via 4G Dongle device for output parameters complete in all respect as per drawing/ design, technical specifications and instruction of the Engineer in charge.	Job	1			
3	Distribution Boxes & LV Panel: Providing & installation of 4 Pole MCCB AC Breakers (Chint/ABB /Eqv.) AC Surge Protection Device, Tin Coated Cu Bus Bars Digital Volt/Ampere Meter complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Job	1			
4	Structure Providing & installation of Standard Galvanized Structure L2, Panel Mounting Structure 12 Gauge Aluminum for (100 Km/h + system) complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Per Kw	110			
5	DC Electric Wire:	Job	110			

	Providing & laying of 4mm² XLPE/PVC/Tin Coated Copper Single Core 1000V DC of approved make (FAST Cables / GM Cables / pakistan cable or Eqv) complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.		1		
6	AC Electric Wire Providing & laying of Standard PVC Aluminum AC Wire for Inverter & Bus Bar Connections 4 X185 mm2 of approved make (FAST Cables / GM Cables / pakistan cable or Eqv) complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Meter	230		
7	Electrical Installation: Providing & laying of PVC Bends & Ducts, Flexible Pipes, U-Clamps etc. Conduits, Cable Ties, MC4 connectors etc of approved make complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Job	1		
8	Earthing (AC,DC) & Lightning Protection Providing & laying of Earthing Bores, Grounding Wire & Lightning Arrestors with Earthing Chemical of approved make complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Job	2		
9	Net Metering Providing & installation of Meter installation, documentation & all dealings with respective DISCO (s) complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.				
10	Civil Work:	Job Job	1		

11	PV-DG Synchronization Providing & installation of PV-DG Synchronization complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Job	1	Total Rs.		
	Providing & laying of cast and situ concrete blocks (1:1-1/2:3) for structure bases including the cost of formwork, placing, complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.		1			

BILL OF QUANTITIES FOR INSTALLATION OF SOLAR SYSTEM AT UNIVERSITY OF SAHIWAL, DISTRICT SHIWAL

ACADEMIC BLOCK-2

Sr.	110 KW ON GRID SYSTEM	Unit	Qty	Rate	Rate in	Amount
#	Description	Onit	i Giy	(Rs.)	Words	(Rs.)
1	PV Modules (580-585 W)					
	Providing & installation of Jinko Solar / Canadian - Tier 1 or Equivalent, Grade A BF Mono perc, Half Cut PV Modules complete in all respect as per drawing/ design, technical specifications and instruction of the Engineer incharge.	Each	190			
2	Inverters: Providing & installation of Growatt / KNOX or Equivalent (100 KW) Grid Tied Maintenance Free Three Phase Inverter Wireless remote monitoring via 4G Dongle device for output parameters complete in all respect as per drawing/ design, technical specifications and instruction of the Engineer incharge.	Job	1			
3	Distribution Boxes & LV Panel: Providing & installation of 4 Pole MCCB AC Breakers (Chint/ABB /Eqv.) AC Surge Protection Device, Tin Coated Cu Bus Bars Digital Volt/Ampere Meter complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Job	1			
4	Structure Providing & installation of Standard Galvanized Structure L2, Panel Mounting Structure 12 Gauge Aluminum for (100 Km/h + system) complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.					
		Per Kw	110			
5	DC Electric Wire:	Job				

	Providing & laying of 4mm ² XLPE/PVC/Tin Coated Copper Single Core 1000V DC of approved make (FAST Cables / GM Cables / pakistan cable or Eqv) complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.		1		
6	AC Electric Wire Providing & laying of Standard PVC Aluminum AC Wire for Inverter & Bus Bar Connections 4 X185 mm2 of approved make (FAST Cables / GM Cables / pakistan cable or Eqv) complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Meter	300		
7	Electrical Installation:				
	Providing & laying of PVC Bends & Ducts, Flexible Pipes, U-Clamps etc. Conduits,				
	Cable Ties, MC4 connectors etc of approved make complete in all respect as				
	per drawing/ designe, technical specifications and instruction of the				
	Engineer incharge.				
8	Earthing (AC,DC) & Lightning Protection	Job	11		
	Providing & laying of Earthing Bores,				
	Grounding Wire & Lightning Arrestors with Earthing Chemical of approved make				
	complete in all respect as per drawing/				
	designe, technical specifications and instruction of the Engineer incharge.				
	g g	Job	2		
9	Net Metering Providing & installation of Meter				
	installation, documentation & all dealings				
	with respective DISCO (s) complete in all respect as per drawing/ designe, technical				
	specifications and instruction of the				
	Engineer incharge.				
40		Job	1		
10	Civil Work:	Job			

				Total Rs.		
Providin Synchro per draw specifica	Synchronization g & installation of PV-DG nization complete in all respect as ving/ designe, technical ations and instruction of the r incharge.	Job	1			
blocks (including complete designe	g & laying of cast and situ concrete 1:1-1/2:3) for structure bases g the cost of formwork, placing, e in all respect as per drawing/technical specifications and on of the Engineer incharge.		1			

BILL OF QUANTITIES FOR INSTALLATION OF SOLAR SYSTEM AT UNIVERSITY OF SAHIWAL, DISTRICT SHIWAL

VC HOUSE

Sr.	10 KW HYBRID SYSTEM	11	0411	Rate	Rate	Amount
#	Description	Unit	Qty	(Rs.)	in Words	(Rs.)
1	PV Modules (580-585 W) Providing & installation of Jinko Solar / Canadian - Tier 1 or Equivalent , Grade A BF Mono perc, Half Cut PV Modules complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Each	18			
2	Inverters: Providing & installation of Knox / Growatt or Equivalent 10 KW Hybrid Three Phase Inverter Wireless remote monitoring via 4G Dongle device for output parameters complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Each	1			
3	Distribution Boxes & LV Panel: Providing & installation of 4 Pole MCCB AC Breakers (Chint/ABB /Eqv.) AC Surge Protection Device, Tin Coated Cu Bus Bars Digital Volt/Ampere Meter complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Job	1			
4	Structure Providing & installation of Standard Galvanized Structure L2, Panel Mounting Structure 12 Gauge Aluminum for (100 Km/h + system) complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Per Kw	10			
5	DC Electric Wire:	Job				

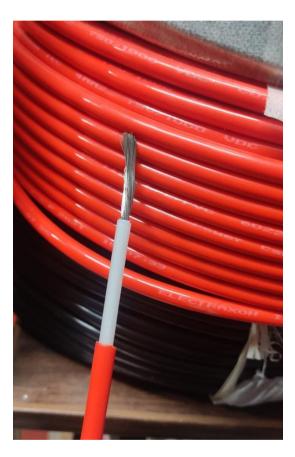
	Providing & laying of 4mm ² XLPE/PVC/Tin Coated Copper Single Core 1000V DC of approved make (FAST Cables / GM Cables / pakistan cable or Eqv) complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.		1		
6	Electrical Installation:				
	Providing & laying of PVC Bends & Ducts, Flexible Pipes, U-Clamps etc. Conduits, Cable Ties, MC4 connectors etc of approved make complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Job	1		
7	Earthing (AC,DC) & Lightning Protection Providing & laying of Earthing Bores, Grounding Wire & Lightning Arrestors with Earthing Chemical of approved make complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Job	1		
8	Civil Work: Providing & laying of cast and situ concrete blocks (1:1-1/2:3) for structure bases including the cost of formwork, placing, complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Job	1		
9	Batteries Providing & installation of 150 Amp x 4 (12V) batteries of approved make complete in all respect as per drawing/ designe, technical specifications and instruction of the Engineer incharge.	Each	4		
				Total Rs.	

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

1. DC ELECTRIC WIRE

4mm Single Core wire (Pakistan / Fast / Newage or equivalent) 1000 / 1500 Volt DC , Full Guage BS:6500



2. **ELECTRICAL INSTALLATION**

This Scope includes installation of Solar Panels, Laying of PVC Conduits, Cable Trays, Connections of Solar Panels & Misc.

Estimated Material Includes

Sr.No	Item	Specs	Images
1	PVC Conduit	1 inch / 2 inch (Beta/Popular/Adam Jee or equivalent)	Ethery Princes and
2	Cable Trunk	40 x 40 Inch (Master / Adam Jee or equivalent)	
3	PVC Elbows / Bends	1 inch / 2 inch (Beta/Popular/Adam Jee or equivalent)	

4	MC4 Connector	4mm ²	
5	Cable Ties	6 inch / 8 inch / 12 inch (Nylon)	
6	PVC Sockets	1 inch / 2 inch (Beta/Popular/Adam Jee or equivalent)	epco ltd.
7	Wooden Screw	1 inch / 2 inch (Adam Jee)	

8	Thimbles	10mm / 16 mm / 25mm (Copper)	
9	PVC Insulation Tapes	Red / Black (Osaka)	

3. EARTHING AC & DC

Earth With Bore is recommended. Earth Resistance should be less than 5 Ohm.

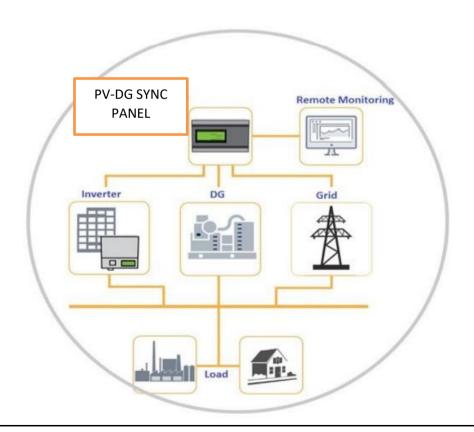
Sr.No	Item	Specs	Images
1	Light Arrestors	20mm Copper Light Arrestors with 5 Spokes & base.	
2	Bare Copper Conductor	25mm Bare Copper Conductor	

3	Earth Rod	25mm Pure Copper Earth Rod	
4	Copper Clamps	U Clamp	
5	Chemical	Bentonite Powder / Marconite Powder	BENTONITE

4. PV-DG SYNCHRONIZATION

The PV DG Controller/ Device is an advanced device designed to seamlessly integrate PV solar and Diesel Generator systems, unlocking unparalleled efficiency and flexibility, with its cutting-edge technology, the controller performs a range of vital functions that enhance power generation and streamline operations.

Harnessing the power of solar energy while ensuring a reliable backup, the PV DG Controller/Device excels in maintaining a spin reserve of 25-30%. By intelligently managing the solar plant's output in accordance with the load requirement, it guarantees a stable and uninterrupted power supply. This sophisticated control mechanism eliminates any wastage of solar energy and maximizes its utilization.



Sr.No	Item	Specs (Local Manufactured)
1	ATS Panel	3 Phase ATS Panel , 180 Amp
2	Current Sensor	-
3	Voltage Sensor	-
4	SCADA Interface	Human Machine Interface
5	Display	-

DRAWINGS

TECHNICAL QUALIFICATION CRITERIA

ECHNICAL PROPOSAL (For qualification) OF CONTRACTORS FOR SUPPLY, & INSTALLAION OF 230 KW SOLAR SYSTEM AT UNIVERSITY OF SAHWIAL, DISTRICT SAHIWAL

Issued to M/s.						
(Name of Construct	or's Representative)					
Issued by						
	(Date)	(Time)				
	, ,	, ,				
20244	ring office Hours					
	2024during office Hours					
(Last Date of Submi	ssion)					

Note: Applicant should be followed application form A-1 to A-11. (Noncompliance could be the cause of disqualification)

INSTRUCTIONS TO APPLICANTS

1.1 Submission of Applications

1.1.1 Applications for Technical proposal must be submitted on EPADs, thoroughly signed and stamped by the contractor/ tenderer.

To -

Director (P&D)/ Project Director, University of Sahiwal at District Sahiwal Phone No. 92-040-9200432

Not later than ----- by 130 Hours and be clearly marked "Application for Technical Proposal" for Supply & Installation of Solar System at University of Sahiwal, District Sahiwal"

The Employer reserves the right to accept or reject all applications at any time without assigning any reason.

- 1.1.2 The name and mailing address of the Applicant shall be clearly marked at left hand on the envelope.
- 1.1.3 The applications shall be prepared in the English language only.
- 1.1.4 The applicants must respond to all questions and provide complete information as advised in this document. Any lapses to provide essential Information may result in disqualification of the Applicant.
- 1.1.5 The applicants must signed and stamped of each page of Technical Bid.

Mandatory Requirements

- **a.** Registration with Pakistan Engineering Council having registered in in relevant category or above with updated renewal.
- **b.** Valid Registration with FBR and PRA. Sales tax department and Active tax paying status for current year (evidence must be provided).
- **c.** Affidavit that firm is not blacklisted/ disqualified by any Government, semi-Government or any autonomous Department.
- **d.** Sign and stamp on each page of tender document.
- **e.** Name of the Firm with full address, telephone & fax No of Head office and Branch offices.
- **f.** A copy of articles and memorandum of association of Firm/partnership deed.
- **g.** Tax Returns of last two years.
- **h.** Audit Reports for last three years.

1.2 Technical Qualification Criteria

1.2.1 General

Technical proposal (for qualification) will be based on all the criteria given in succeeding paras 1.2.2 to 1.2.5 regarding the Applicant's General Experience, Personal Capabilities, Equipment Capabilities, Financial status. The Employer reserves the right to waive minor deviations, if these don't materially affect the capability of an applicant to perform the contract. Sub-contractor's experience and resources shall not be taken into account in determining the Applicant's the qualifying criteria. However, Joint Venture experience & resources shall be considered. Consortium or Association of firms will be considered for similar treatment as in case of Joint Venture. Criteria for proposal are provided as followings:

Sr.No	Category	Weightage/Marks
1	Financial Soundness	30
2	Experience Record (Last 10 Years & work in Hand)	35
3	Personnel Capabilities (Detail of Technical Stagg)	15
4	Equipment Capabilities	20
	Total:	100

1.2.2 Financial Position

Credit Marks shall be awarded on the basis of the following criteria:

S.No	Description	Maximum Points	Explanation for Marks Obtained
1	Available Bank Credit Line	5	 3 Marks are given if the available bank credit line limit is equal to 20 million. For limit less than 20 million, use following weightage 3 x (A/20) A= Available Bank Credit Line Limit Full Marks are given in case of limit is 20 million or more.
2	Working Capital in last 3 years	15	 10 Marks are given if the available average working capital for last three years is equal to 100 million. For the capital less than 100 million use following weightage 10 x (A/100). For the capital more than 100 million but less than 500 million use following weightage 10+ (A/500) x 5, A= Average working capital in last three years.

			Full Marks are given in case of limit is 500 million or more.
3	Litigation History where decision went against the Firm	5	 In case the firm is involved in any litigation, no marks will be given and 5 points will be added in case affidavit of no litigation is attached.
4	Valid electrical license from Sub- Contractor/ JV Partner	5	 No points will be given if license is not attached and 5 points will be added in case of valid license.
	Sub-Total:	30	

• Contractor shall provide audited financial statement for the last 03 years

1.2.3 General Experience

Credit Marks for experience shall be awarded on the basis of following Qualifications:

Sr.#	Description	Maximum Points	Explanation for Marks Obtained
1	Projects of similar nature and complexity completed during latest 10 years' worth more than 10 Million each.	20	 18 Marks are given if the contractor has completed at least 2 projects of similar nature in last ten years. For less than 2 projects completed
			use the following weightage 18 x (A/2) A = No of projects of similar nature Completed in last 10 years • Full Marks are given in case of more than 2 projects or more.
2	Projects of similar nature and complexity in hand worth more than 10 million each	05	05 Marks are given if the contractor has 01 projects of similar nature in-hand.
3	Electrical works carried out during last 10 years by the firm/JV	5	• 5 Marks are given if the contractor has completed at least 01 project of similar nature in last Ten years.
4	Status of enlistment with Government Organizations and other agencies.	5	2.5 Mark for each enlistment up to maximum 0f two enlistments.
	Sub-Total:	35	

1.2.4 Personnel Capabilities

Credit Marks shall be awarded under this category using the following criteria:

	Description	Maximum	Explanation for Marks Obtained
Sr.#		Points	
i)	Graduate Engineers Registered		Strength of Engineers (6 Marks)
	with PEC (Electrical)	6	6 Marks will be given if the total no. of
	a) 01 Nos		Engineers registered with PEC are 01
			nos. or above.
	b) Experience of Engineers		Experience (3-Marks):
	minimum 05 Years in each	3	• 3 Marks will be given if the individual
	discipline		experience of B.Sc Engineers
			(professional) is equal to 05 years or
			above.
ii)	Number of Diploma Engineers		Strength of Engineers (4 Marks)
	in Employment of the Firm		• 4 Marks will be given if the total no. of
	a) 01 Nos in Electrical	4	Associate Engineers (DAE) is 01no. or
			above.
	Electrical, Experience of		Experience (2-Marks):
	Engineers minimum 10 years	2	• 2 Marks will be given if the individual
			experience Associates Engineers (DAE)
			is equal to 10 years or above.
	Sub-Total	15	

1.2.5 Equipment Capabilities

Credit Marks shall be granted on the basis of the following criteria for various

Kinds of equipment relevant for the Project: (Owned/ Hired, Affidavit must be attached in each case)

Sr. No	Equipment Type and	Maximum	Marks Allocation
	Characteristics	Assigned	
1	Electric Generator 05 Kva		• 12 Marks for each equipment
		15	are given if the Contractor
2	Electric Welding plant		meets the min. requirement
		15	for each item.
3	Battery powered drill (heavy		If the available quantity of each
	duty) 02 Nos	15	equipment is less than
	Hilti		required limit than weightage
4	(Heavy Duty) 02 Nos	15	will be 12 x (A/Required Qty)
	Chain Pulley 01 Nos		A= Available quantity of each
5		15	equipment.
	Amp Meter etc.		Total Marks =
6		15	(Marks obtained/100*20
7	Mixer Machine		
	(Half Bag) 01 Nos	10	
	Total Marks Allocated		20

Note:- Black Listed firm by any Govt. Semi Govt, Corporation or authority shall not be considered for this technical qualification.

1.3 Joint Venture (JV)

- 1.3.1 Joint Venture must comply with the following requirements:
 - a) Following are minimum qualification requirements: -
 - I. The lead partner shall meet not less than 40% of all the qualifying criteria.
 - II. Each of the partners shall meet not less than 25% percent of all the qualifying criteria.
 - III. The joint venture must collectively satisfy the criteria of paras 1.2, 1.3 and 1.4, for which purpose the relevant figures for each of the partners shall be added together to arrive at the JV's total capacity. Individual members must satisfy each of the requirements of paras 1.5 and 1.6 theretofore.
 - b) Any change in a technically-qualified JV after technical qualification, shall be subject to the written approval of the Employer prior to the deadline for submission of bids. Such approval may be denied if:
 - i) Partner(s) withdrawal from a JV and remaining partners do not meet the qualifying requirements;
 - ii) The new partners to a JV are not qualified individually or as another JV; or
 - iii) In the opinion of the Employer, a substantial reduction in Competition would result.
 - c) Bid shall be signed by all members in the JV so as to legally bind all Standard Procedure for technical -Qualification of Constructors partners, jointly and severally, and any bid shall be submitted with a copy of the JV agreement providing the joint and several liability with respect to the contract.
 - 1.3.2 The technical qualification of a JV does not necessarily technically qualify any of its partners individually or as a partner in any other JV or association. In case of dissolution of a JV, each one of the constituent firms may technically qualify if they meet all the technical qualification requirements and any partner of J.V has requested/shall request for the same and then his technical qualification shall be subject to the written approval of the Employer.

1.4 Conflict of Interest

The Applicant (including all members of a JV) must not be associated, nor have been associated in the past, with the consultant or any other entity that has prepared the design, specifications, and other technical qualification and bidding documents for the project, or was proposed as Engineer for the contract, over the last five years. Any such association may result in disqualification of the applicant.

1.5 Updating Qualification Information

Bidders shall be required to update the financial, personnel and equipment information used for technical qualification at the time of submitting their bids, to confirm their continued compliance with the qualification criteria and verification of the information provided at the time of qualification. A bid shall be rejected if the Applicant's qualification thresholds are no longer met at the time of bidding.

1.6 Other Factors

- 1.6.1 Only firms and JVs that have been technically-qualified under this procedure shall be invited to bid. A qualified firm or a member of a qualified JV may participate only in one bid for the contract. If a firm submits more than on bid, singly or as a JV, all bids including that bidder will be rejected. This rule will not apply in respect of bids which include specialist subcontractors who are used by more than one bidder.
 - 1.6.2 The Employer reserves the right to:-
 - a) Amend the scope and value of any contract(s) to be bid, in which event the bidder(s) will only bid among those technically-qualified bidders who meet the requirements of the contract(s) as amended. However the Employer has to review the disqualified bids who originally do not meet the specified criteria for technical-qualification.
 - b) Reject or accept any application; and
 - c) Cancel the qualification process and reject all applications.

The Employer shall neither be liable for any such actions nor be under any obligation to inform the Applicant of the grounds for rejection, however, may be debriefed if solicited.

2.0 EVALUATION CRITERIA

Applicants meeting the minimum requirements mentioned in Para 1.2 besides other factors shall be considered for technical-qualification. Each applicant will have to pass the following.

- Minimum requirements to secure at least 60% points in each category
- Minimum requirements to secure over all 60% points

Letter of Application

[Letterhead paper of the Applicant, or partner	
responsible for a joint venture, including full postal	
address, telephone No, Fax No., Telex no., Cable and	e-mail
address]	
Date:	

To -

Director (P&D)/Project Director
University of Sahiwal at District Sahiwal

Phone No. 92-040-9200432

Sir,

- 2. Attached to this letter original documents defining.
 - (a) The Applicant's legal status;
 - (b) The principal place of business; and
 - (c) The place of incorporation (for applicants who are corporations); or The place of registration and the nationality of the owners (for applicants who are partnerships or individually-owned firms).
- 3. Your Agency and its authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents, and information submitted in connection with this application, and to s eek clarification from our bankers and clients regarding any financial and technical aspects. This Letter of Application will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by yourselves or the authorized representative to verify statements and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.

4. Your Agency and its authorized representatives may contact the following persons for further information 2, if needed.

General and Managerial Inquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2

Personal Inquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2

- i) For applications by joint ventures, all the information requested in the qualification documents is to be provided for the joint venture, if it already exists and for each party to the joint venture separately. The lead partner should be clearly identified. Each partner in the joint venture shall sign the letter.
- ii) Application by joint ventures should provide information on separate sheet information for each party to the application.

Technical Inquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2

Financial Inquiries	
Contact 1	Telephone 1
Contact 2	Telephone 2

- 5. This application is made with the full understanding that:
 - (a) bids by technically-qualified applicants will be subject to verification of all information submitted for technical-qualification at the time of bidding;
 - (b) your Agency reserves the right to:
 - (i) amend the scope and value of any contract under this project; in such event bids will only be called from technically-qualified bidders who meet the revised requirements; and
 - (ii) reject or accept any application, cancel the technical qualification process, and reject applications; and

- (c) Your Agency shall not be liable for any such actions and shall be under no obligation to inform the Applicant of the grounds for actions at 5(b) here above.
- (d) Your Agency shall not be liable for consequence of, and shall be under no obligation to inform the applicant of the grounds for, actions taken under para 5(b) here above.

Applicants who are not joint ventures should delete para 6&7 and initial the deletions.

- 6. Appended to this application, we give details of the participation of each party, including capital contribution and profit/loss agreements, to the joint venture or association. We also specify the financial commitment in terms of the percentage of the value of the (each) contract, and the responsibilities for execution of the (each) contract.
- 7. We confirm that in the event that we bid, that bid as well as any resulting contract will be.
 - (a) Signed so as to legally bind all partners, jointly and severally; and
 - (b) submitted with a Joint Venture agreement providing the joint and several liability of all partners in the event the contract is awarded to us.
- 8. The undersigned declare that the statements made and the information provided in the duly completed application are complete, true, and correct in every detail.

Signed	Signed
Name	Name
For and on behalf of (name of Applicant or lead partner of a joint venture)	For and on behalf of (name and signature of other partners of the joint venture)

General Information

All individual firms and each partner of a joint venture applying for technical qualification are requested to complete the information in this form. Nationality information is also to be provided for foreign owners or applicants who are forming part of the Joint Ventures as required under the PEC Bye-Laws as a Partnership/Joint Venture.

Where the Applicant proposes to use named subcontractors for critical components of the works or for work contents in excess of 10 percent of the value of the whole works, the following information should also be supplied for the specialist subcontractor(s).

1	Name of Firm	
2	Head Office Address	
3	Telephone	Contact Person
		Name:
		Title:
4	Fax	Telex
5	Place of Incorporation/Registration	Year of incorporation/registration

NATIONALITY OF OWNERS			
	NAME NATIONALITY		
1			
2			
3			
4			
5			

- Memorandum and Articles of Association, Registration/Partnership deed to be attached.
- Valid registration with PEC in relevant category (Civil & Electrical) Attach Certificate
- Enlistment with government departments Attach certificate of registration

General Experience Record

Name of Applicant or partner of a joint venture	

All individual firms and all partners of a joint venture are requested to complete the information in this form. The information supplied should be the annual turnover of the Applicant (or each member of a joint venture), in terms of the amounts billed to clients for each year for work in progress or completed over the past five years.

Use a separate sheet for each partner of a joint venture.

Annual Turnover (Construction only)					
Year	Turnover	Equivalent Rupees in Million			
	(in actual currency)				
1					
2					
3					

• Confirmed Bank line of credit to be attached

Joint Venture Summary

Names of all Partners of a Joint Venture
1.Lead
Partner
2. Partner
3. Partner
4. Partner
5. Partner
6. Partner

Total value of annual construction turnover, in terms of work billed to clients,

Annual Turnover Data						
(Construction only; Equivalent in Pak Rupees, Millions)						
Partner	Form A-2	Year 1	Year2	Year 3	Year 4	Year 5
	Page No.					
1. Lead						
Partner						
2.						
Partner						
3.						
Partner						
4.						
Partner						
5.						
Partner						
6.						
Partner						
	Total:					

Particular Experience Record

Name of Applicant or partner of a joint venture	
Traine of rippineant of partner of a joint venture	

To technically-qualify, the Applicant shall be required to pass the specified requirements applicable to this form, as set out in the: Instructions to Applicants".

On a separate page, using the format of Application Form A-5, each applicant or partner of a Joint Venture is required to list all contracts of a value equivalent to Pak Rs.15 million or above, of a similar nature and complexity to the contract for which the Applicant wishes to qualify, undertaken during the last five years. The information is to be summarized, using Application Form A-5, for each contract completed or under execution by the Applicant or by each partner of a Joint Venture.

Where the Applicant proposes to use named subcontractor(s) for critical components of the works, or for work contents in excess of 10 percent of the value of the whole works, the information in the afore-mentioned forms should also be supplied for each specialist subcontractor.

• Letter of Acceptance & Completion Certificates from employer to be attached as proof.

Details of Contracts of Similar Nature and Complexity

Name of Applicant or partner of a joint venture	

Use a separate sheet for each contract.

1	Name of Contract					
	Country					
2	Name of Employer					
3	Employer Address					
4	Nature of works and special features relevant to the contract for which the					
	Applicant wishes to qualify					
5	Contract Roles (Tick One)					
	(a) Sole Contractor b) Sub-Contractor c) Partner in a Joint Venture					
6	Value of the total contract (in specified currencies) at completion, or at date of					
	award for current contract					
	Currency Currency					
7	Equivalent in Pak/Rs.					
8	Date of Award					
9	Date of Completion					
10	Contract Duration (Years and Months)					
	yearsMonths					
11	Specified Requirements 1					

- Letter of Acceptance & Completion Certificates from employer to be attached as proof.
- Pictures of executed projects to be attached

Summary Sheet: Current Contract Commitments/Works in Progress

Name of Applicant or partner of a joint venture

Applicants and each partner to an application 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 substantial Completion Certificate has yet to be issued.

Name of Contract	Value of Outstanding work (Equivalent Pak Rs. Millions)	Estimated Completion Date
1.		
2.		
3.		
4.		
5.		
6.		

• Letter of Acceptance from employer to be attached as proof.

Personnel Capabilities

Name of Applicant	

For specific positions essential to contract implementation, Applicants should provide the names of at least two candidates qualified to meet the specified requirements stated for each position.

The data on their experience should be supplied on separate sheets using one Form for each candidate (Application Form A-8).

1	Title of Position
	Name of Prime Candidate
	Name of Alternate Candidate
2	Title of Position
	Name of Prime Candidate
	Name of Alternate Candidate
3	Title of Position
	Name of Prime Candidate
	Name of Alternate Candidate
4	Title of Position
	Name of Prime Candidate
	Name of Alternate Candidate

• Engineers employed with the firm shall furnish an affidavit that he/she is employed in that particular organization along with the PEC registration certificate

Candidate Summary

Name	O	fA	nn	lic	an	t
, tuille	_	, , ,	\sim		<i></i>	

	Position	Candidate [Tick appropriate one]
Candidate information	1. Name of Candidate	2. Date of Birth
	3. Professional Qualification	
Present employment	4. Name of employer	
	Address of employer	
	Telephone	Contact (manager/personnel officer)
	Fax	Telex
	Job title of candidate	Years with present employer

Summarize professional experience over the last 20 years, in reverse chronological order. Indicate particular technical and managerial experience relevant to the Project.

Month/ Dates	/Years	Company / Project / Position / Relevant technical and management experience
From	То	

Equipment Capabilities

The Applicant shall provide adequate information to demonstrate clearly that he has the capability to meet the requirements for each and all items of equipment listed in the Instructions to Applicants. A separate Form shall be prepared for each item of equipment listed in para 1.2.5 of the Instructions to Applicants, or for alternative equipment proposed by the Applicant.

Item of Equipment					
Equipment	1. Name of manufacturer 2. Model and Power rating				
information	3. Capacity 4. Year of manufacture				
Current status	5. Current location				
	6. Details of current commitments				
Source	7. Indicate source of the equipment				
	Owned Rented Leased				

Application Form A-10

Financial Capability

Name of Applicant or Partner of a Joint Venture

Applicants, including each partner of a joint venture, should provide financial information to demonstrate that they meet the requirements stated in the Instructions to Applicants. Each applicant or partner of a joint venture must fill-in this form. If necessary, use separate sheets to provide complete banker information. A copy of the audited balance sheets should be attached.

Banker	Name of banker	
	Address of banker	
	Telephone	Contact name and title
	Fax	Telex

Summarize actual assets and liabilities in Pak Rupees (Equivalent at the current rate of exchange at the end of each year) for the previous five years, based upon known commitments, projected assets and liabilities in Pak Rupees equivalent for the next two years.

Financial information in Pak Rs. or equivalent	Actual: Previous five year				Projected: Next two years		
	1	2	3	4	5	6	7
1. Total assets							
2. Current assets							
3. Total liabilities							
4. Current liabilities							
5. Profits before							
taxes							
6. Profits after taxes							

Name of Applicant or Partner of a Joint Venture

- Verified bank statements for last 03 years to be attached.
- Audited financial statements for last 03 years to be attached.
- Proof of valid active registration with income tax department/FBR to be attached.

Litigation History

Applicants, including each of the partners of a joint venture, should provide information on any history of litigation or arbitration resulting from contracts executed in the last five years or currently under execution. A separate sheet should be used for each partner of joint venture.

ear	Award FOR or AGAINST Applicant	Name of client, cause of litigation, and matter in dispute	Disputed amount (current value Pak Rs. Or equivalent)