



Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology, Haripur

KHYBER PAKHTUNKHWA

Tender Document FOR “Design, Supply, Installation & Commissioning of 1MW-Grid Connected Solar System at PAF-IAST Haripur.”

Submission of Bids: 5th August 2025 Before 12:00PM after Noon

Opening of Bids: 5th August 2025 at 12:30 PM

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Section 1. Letter of Invitation

The Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology (PAF- IAST), Hairpur invites sealed bids from interested firms for the “Design, Supply, Installation and Commissioning of 1MW-Grid Connected Solar System at PAF-IAST Haripur.”

Design, Engineering, Supply, Construction, Erection, Testing, commissioning, training and post installation 1MW-Grid Connected Solar System at PAF-IAST and O&M services for two years.

The eligible firms must be registered with AEDB in C-1 category and licensed by PEC in category-3 or above

The bidder must be registered and duly recognized in Pakistan and be registered with FBR and KPPRA; possess Manufacturer’s status or Distributor/ Dealer status with authorization from Manufacturer/ Principal specific for this tender, with sufficient financial, technical and human resources to take up the task assigned and complete the same within prescribed time limit on the finalization of contract with PAF- IAST.

Tender document containing instructions to bidders covering definitions, introduction/background of the Project, scope of work, general terms and conditions, and special terms, procedure for submission of bids, opening of bid, evaluation criteria, and other related information, can be obtained against a written request on company’s letterhead, from Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology, Haripur – Pakistan. Cost of the document is Rs. 3000/- Non-refundable (Stationery charges) . Tender documents can also be downloaded from <http://www.paf-iaست.edu.pk/> free of cost, however, the Bid should also be submitted along with Pay Order/ Demand Draft of Rs. 3000/- (Stationery Charges). No bid will be accepted without the Tender Document fee.

Bidder(s) interested in participating in the tender process are advised to submit their Bid Proposal(s), along with the Earnest Money amounting 2% of their Bid Value in the shape of CDR, in accordance with the instructions in this tender document. Bid Proposal(s) must reach PAF-IAST, Haripur on Tuesday the 5th August 2025 by 1200 hrs. Any late Bid(s) shall not be accepted and returned unopened. Accepted Bids will be opened on the same day at 12:30 hrs, in the presence of bidders who chose to attend. In case of sudden holiday on bid opening day, bids will be opened on next working day. The Tender shall be executed in accordance with KPPRA Rule 6 (2)b “Single Stage, two Envelope Procedure”.

This advertisement is also available on PAF: IAST and KPPRA websites <http://www.paf-iaست.edu.pk/> & <http://www.kppra.org.pk>.

Project Director

**Pak-Austria Fachhochschule: Institute of Applied Sciences & Technology (PAF-IAST)
Hairpur – Khyber Pakhtunkhwa**

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Section 2. Instructions to Bidders (ITB)

A. GENERAL TERMS	
1. Introduction	<p>1.1 Bidders shall adhere to all the requirements of this ITB, including any amendments made in writing by PAF-IAST. This ITB will be governed under Clause 36(a) "Single Stage, Two Envelope Procedure" of Public Procurement Rules, 2014, as amended from time to time and instructions of the Federal Government received during the completion of the project.</p> <p>1.2 Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by PAF-IAST. The Institute is under no obligation to award a contract to any Bidder as a result of this ITB.</p> <p>1.3 PAF-IAST reserves the right to cancel the procurement process at any stage without any liability of any kind for PAF-IAST, upon notice to the bidders or publication of cancellation notice on PAF- IAST website.</p>
2. Fraud & Corruption, Gifts and Hospitality	<p>2.1 PAF-IAST strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of PAF-IAST vendors and requires all bidders/ vendors observe the highest standard of ethics during the procurement process and contract implementation.</p> <p>2.2 Bidders/ vendors shall not offer gifts or hospitality of any kind to PAF-IAST staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or invitations to extravagant lunches or dinners.</p> <p>2.3 In pursuance of this policy, PAF-IAST:</p> <p>(a) Shall reject a bid if it determines that the bidder is or has been engaged in any corrupt or fraudulent practices in competing for the tender in question.</p> <p>(b) Shall declare a bidder ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the bidder is or has been engaged in any corrupt or fraudulent practices in competing for, or in executing any contract; or counseling or canvassing staff or elected representatives; or engaging in collusion with other bidders.</p>
3. Eligibility	<p>3.1 A Bidder should not be suspended, debarred, or otherwise identified as ineligible by any Government/ Semi-government/ or any other international Organization. Bidders are therefore required to disclose to PAF-IAST whether they are subject to any sanction or temporary suspension imposed by these organizations.</p> <p>3.2 It is the Bidder's responsibility to ensure that its employees, sub-contractors, service providers, suppliers and/ or their employees meet the eligibility requirements as established by PAF-IAST.</p>
4. General Terms	<p>4.1 The Bidder should be registered with Sales Tax and Income Tax Department as well as with the Khyber Pakhtunkhwa Revenue Authority.</p> <p>4.2 The Bidder should have not been blacklisted by any Government/ semi-Government organization.</p> <p>4.3 There should be no litigation against the bidder/ firm.</p>

B. PREPARATION OF BIDS	
5. General Considerations	<p>5.1 In preparing the Bid, the Bidder is expected to examine the ITB in detail. Material deficiencies in providing the information requested in the ITB may result in rejection of the Bid.</p> <p>5.2 The Bidder will not be permitted to take advantage of any errors or omissions in the ITB. Should such errors or omissions be discovered, the Bidder must notify the Project Director, PAF-IAST accordingly.</p>
6. Cost of Preparation of Bid	6.1 The Bidder shall bear all costs related to the preparation and/ or submission of the Bid, regardless of whether its Bid is selected or not. PAF-IAST shall not be responsible or liable for those costs, regardless of the conduct or outcome of the procurement process.
7. Language	7.1 The Bid, as well as any, and all related correspondence exchanged by the Bidder and PAF- IAST, shall be written in the language(s) specified in the BDS.
8. Documents Comprising the Bid	<p>8.1 The Bid shall comprise of the following documents and related forms of which details are provided in the BDS. All pages of the Bid shall be signed, stamped and properly paginated.</p> <p>a) Returnable Forms as referred in Section 6 shall be properly filled in Ink or Typed. Forms filled in using a pencil shall not be considered and substantiate the annulment of the Bid Proposal.</p> <p>b) Documents Establishing the Eligibility and Qualifications of the Bidder;</p> <p>c) Bid covering Technical Specifications in detail, and covering Price Schedule;</p> <p>d) Bid Security, if required by BDS;</p> <p>e) Any attachments and/ or appendices to the Bid.</p>
9. Documents Establishing the Eligibility and Qualifications	9.1 The Bidder shall furnish documentary evidence of its status as an eligible and qualified supplier, using the Forms provided under Section 6 and providing documents required in those forms. In order to award a contract to a Bidder, its qualifications must be documented to PAF-IAST's satisfaction.
10. Technical Bid Format and Content	<p>10.1 The Bidder is required to submit a Bid using the Standard Forms and templates provided in Section 6 of the ITB.</p> <p>10.2 Samples of items, when required as per Section 5, shall be provided within the time specified and unless otherwise specified by the Purchaser, at no expense to the Institute. If not destroyed by testing, samples will be returned at Bidder's request and expense, unless otherwise specified.</p> <p>10.3 When applicable and required in Section 5, the Bidder shall describe the necessary training program available for the maintenance and operation of the equipment offered as well as the cost to the Institute. Unless otherwise specified, such training as well as training materials shall be provided in the language of the Bid as specified in the BDS.</p> <p>10.4 When applicable and required in Section 5, the Bidder shall certify the availability of spare parts for a period of at least five (5) years from date of delivery, or as otherwise specified in this ITB.</p>
11. Price Schedule	<p>11.1 The Price Schedule shall be prepared using the Forms provided in Section 6 of the ITB and taking into consideration the requirements in the ITB.</p> <p>11.2 Any requirement described in this ITB but not priced in the Price Schedule, shall be assumed to have been included in the prices of other activities or items, as well as in the final total price.</p>

12. Bid Security	<p>12.1 A Bid Security shall be provided in the amount and form indicated in the BDS. The Bid Security shall be valid for the duration as referred in BDS.</p> <p>12.2 The Bid Security shall be included along with the Bid. If Bid Security not found in the Bid, the Bid shall be rejected.</p> <p>12.3 If the Bid Security amount or its validity period is found to be less than what is required, PAF-IASST shall reject the Bid.</p> <p>12.4 In the event an electronic submission is allowed in the BDS, Bidders shall include a copy of the Bid Security in their bid and the original of the Bid Security must be sent via courier or hand delivery as per the instructions in BDS.</p> <p>12.5 The Bid Security will be forfeited by PAF-IASST, and the Bid rejected, in the event of any, or combination, of the following conditions:</p> <ul style="list-style-type: none"> a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or; b) In the event the successful Bidder fails: <ul style="list-style-type: none"> i. to sign the Contract after PAF-IASST has issued an award; or ii. to furnish the Performance Security, insurances, or other documents that PAF-IASST may require as a condition precedent to the effectivity of the contract that may be awarded to the Bidder.
13. Currencies	<p>13.1 All prices shall be quoted in the currency indicated in the BDS. Where prices are quoted in different currencies, for the purposes of comparison:</p> <ul style="list-style-type: none"> a) PAF-IASST will convert the currency quoted into the currency indicated in BDS, in accordance with the prevailing Inter Bank rate of exchange on the last day of submission of Bids; and b) In the event that PAF-IASST selects a Bid for award that is quoted in a currency different from the preferred currency in the BDS, PAF-IASST shall reserve the right to award the contract in the currency of PAF-IASST's preference, using the conversion method specified above.
14. Joint Venture, Consortium or Association	<p>14.1 If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by an intent letter or an Agreement among the legal entities duly notarized, and submitted with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between PAF-IASST and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture.</p> <p>14.2 After the Deadline for Submission of Bid, the lead entity identified to represent the JV, Consortium or Association Or any change in the constitution of the JV, Consortium or Association shall not be altered without the prior written consent of PAF-IASST/ Procurement Committee.</p> <p>14.3 The lead entity and the member entities of the JV, Consortium or Association shall abide by the provisions of Clause 15 herein in respect of submitting only one Bid.</p> <p>14.4 The description of the organization of the JV, Consortium or Association must clearly define the expected role of each of the entities in the joint venture in delivering the requirements of the ITB, both in the Bid and the JV, Consortium or Association Agreement or Intent Letter. All entities that comprise the JV, Consortium or Association shall be cumulatively subject to the eligibility and</p>

	<p>technical qualification assessment by PAF-IAST as defined in Section 4: Evaluation Criteria.</p> <p>14.5 A JV, Consortium or Association in presenting its track record and experience should clearly differentiate between:</p> <ul style="list-style-type: none"> a) Those that were undertaken together by the JV, Consortium or Association; and b) Those that were undertaken by the individual entities of the JV, Consortium or Association. <p>14.6 Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the JV, Consortium or Association or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials.</p>
15. Only One Bid	<p>15.1 The Bidder (including the individual members of any Joint Venture) shall submit only one Bid, either in its own name or as part of a Joint Venture.</p> <p>15.2 Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:</p> <ul style="list-style-type: none"> a) they have at least one controlling partner, director or shareholder in common; or b) any one of them receive or have received any direct or indirect subsidy from the other/s; or c) they have the same legal representative for purposes of this ITB; or d) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this ITB process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.
16. Bid Validity Period	<p>16.1 Bids shall remain valid for the period specified in the BDS, commencing on the Deadline for Submission of Bids. A Bid valid for a shorter period may be rejected by PAF-IAST and rendered non-responsive.</p> <p>16.2 During the Bid validity period, the Bidder shall maintain its original Bid without any change, including the availability of the Key Personnel.</p>
17. Extension of Bid Validity Period	<p>17.1 In exceptional circumstances, prior to the expiration of the Bid validity period, PAF-IAST may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing and shall be considered integral to the Bid.</p> <p>17.2 If the Bidder agrees to extend the validity of its Bid, it shall be done without any change to the original Bid.</p> <p>17.3 The Bidder has the right to refuse to extend the validity of its Bid, in which case, the Bid shall not be further evaluated.</p>

18. Clarification on ITB (from the Bidders)	<p>18.1 Bidders may request clarifications on any of the ITB documents no later than the date indicated in the BDS. Any request for clarification must be sent in writing in the manner indicated in the BDS. If inquiries are sent other than specified channel, even if they are sent to a PAF-IAST staff member, PAF-IAST shall have no obligation to respond or confirm that the query was officially received.</p> <p>18.2 PAF-IAST will provide the responses to clarifications through the method specified in the BDS.</p> <p>18.3 PAF-IAST shall endeavor to provide responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of PAF-IAST to extend the submission date of the Bids, unless PAF-IAST deems that such an extension is justified and necessary.</p>
19. Amendment in ITB	<p>19.1 At any time prior to the deadline of Bid submission, PAF-IAST may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of an amendment to the ITB. Amendments will be made available to all prospective bidders.</p> <p>19.2 If the amendment is substantial, PAF-IAST may extend the Deadline for submission of Bid to give the Bidders reasonable time to incorporate the amendment into their Bids.</p>
20. Alternative Bids	<p>20.1 Unless otherwise specified in the BDS, alternative Bids shall not be considered. If submission of alternative Bid is allowed by BDS, a Bidder may submit an alternative Bid, but only if it also submits a Bid conforming to the ITB requirements. Where the conditions for its acceptance are met, or justifications are clearly established, PAF-IAST reserves the right to award a contract based on an alternative Bid.</p> <p>20.2 If multiple/ alternative bids are being submitted, they must be clearly marked as "Main Bid" and "Alternative Bid"</p>
21. Pre-Bid Conference	<p>21.1 When appropriate, a pre-bid conference may be conducted at the date, time and location specified in the BDS. All Bidders are encouraged to attend. Nonattendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder's conference will be disseminated on the procurement website and/ or shared by email as specified in the BDS. No verbal statement made during the conference shall modify the terms and conditions of the ITB, unless specifically incorporated in the Minutes of the Bidder's Conference or issued/ posted as an amendment to ITB.</p>

C. SUBMISSION AND OPENING OF BIDS

22. Bid Proposal Submission	<p>22.1 The Bidder shall submit a duly signed and numbered all pages of the complete Bid in an Envelope sealed and marked as per ITB 22.6, and in accordance with KPPRA Rule 6 (2)(b).</p> <p>22.2 The Outer Envelope should contain Two (02) separate sealed envelopes, one of which comprising the Forms (A – F) and supporting documents in accordance with requirements in the BDS, shall be marked as "Technical Proposal". Whereas the other envelope containing the Form G: Price Schedule Form shall be marked as "Financial Proposal".</p> <p>22.3 The Bid Security as referred in BDS must be placed in the "Financial Proposal" but in a duly sealed envelope and marked as "Bid Security". However, an Affidavit stating that the Bid Security (without indicating the amount) has been placed in the Financial Proposal, should be enclosed in "Technical Proposal". Bid security envelop will be opened with financial proposal of Technically qualified bidders.</p>
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	<p>22.4 The Bidder shall submit a duly signed and numbered all pages of the complete Bid in an Envelope sealed and marked as per ITB 22.6, and in accordance with KPPRA Rule 11(1).</p> <p>22.5 The Envelope should contain all the Returnable Forms (A – G) along with Technical Specifications meeting or exceeding the requirements as stipulated in this ITB, and supporting documents in accordance with requirements in the BDS.</p> <p>22.6 The Bid Security as referred to in BDS must be placed in the Bid Envelope.</p> <p>22.7 Bid can be delivered by courier only as specified in the BDS.</p> <p>22.8 The Bid shall be signed by the Bidder or person(s) duly authorized to commit the Bidder. The authorization shall be communicated through a document evidencing such authorization issued by the legal representative of the bidding entity, or a Power of Attorney, accompanying the Bid. There should not be errors and/ or over-writings. Corrections (if any) should be made clearly and initialed with dates.</p> <p>22.9 Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder fully accepts the General Contract Terms and Conditions.</p> <p>22.10 Hard copy submission by courier allowed or as specified in the BDS shall be governed as follows:</p> <p style="padding-left: 40px;">a) The signed Bid shall be marked "Original", and its copies marked "Copy" as appropriate. The number of copies is indicated in the BDS. All copies shall be made from the signed original only. If there are discrepancies between the original and the copies, the original shall prevail.</p> <p style="padding-left: 40px;">(b) The Bid Proposals must be sealed and submitted in an envelope, which shall:</p> <p style="padding-left: 80px;">i. Bear the name of the Bidder;</p> <p style="padding-left: 80px;">ii. Be addressed to PAF - IAST as specified in the BDS; and</p> <p style="padding-left: 80px;">iii. Bear a warning not to open before the time and date for Bid opening as specified in the BDS.</p> <p>If the envelope with the Bid is not sealed and marked as required, PAF-IAST shall assume no responsibility for the misplacement, loss, or premature opening of the Bid.</p>
23. Deadline for Submission of Bids and Late Bids	<p>23.1 Complete Bids must be received by PAF-IAST in the manner, and no later than the date and time, specified in the BDS. PAF-IAST shall only recognize the actual date and time that the bid was received by PAF-IAST.</p> <p>23.2 PAF-IAST shall not consider any Bid that is received after the deadline for the submission of Bids.</p>
24. Withdrawal, Substitution, and Modification of Bids	<p>24.1 A Bidder may withdraw, substitute or modify its Bid after it has been submitted at any time prior to the deadline for submission.</p> <p>24.2 A bidder may withdraw, substitute or modify its Bid by sending a written notice to PAF- IAST, duly signed by an authorized representative, including a Power of Attorney. The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be submitted in the same manner as specified for submission of Bids, by clearly marking them as "WITHDRAWAL" "SUBSTITUTION," or "MODIFICATION"</p> <p>24.3 Bids requested to be withdrawn shall be returned unopened to the Bidders, except if the bid is withdrawn after the bid has been opened.</p>

25. Bid Opening	<p data-bbox="507 98 1477 165">25.1 The Procurement Committee of PAF- IAST will open the Bid in the presence of Bidders' representative(s) who choose to attend.</p> <p data-bbox="507 188 1477 356">25.2 The Bidders' names, modifications, withdrawals, the condition of the envelope labels/ seals, the number of folders/ files and all other such other details as PAF- IAST may consider appropriate, will be announced at the opening. No Bid shall be rejected at the opening stage, except for late submissions, in which case, the Bid shall be returned unopened to the Bidders.</p> <p data-bbox="507 378 1477 445">25.3 In case of public holiday on bid opening day, bids will be opened on next working day.</p>
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D. EVALUATION OF BIDS

26. Confidentiality	<p>26.1 Information relating to the examination, evaluation, and comparison of Bids, and the recommendation of contract award, shall not be disclosed to Bidders, even after publication of the contract award.</p> <p>26.2 Any effort by a Bidder to influence PAF-IAST in the examination, evaluation and comparison of the Bids or contract award decisions may, at PAF-IAST's decision, result in the rejection of its Bid and may subsequently be subject to consequences.</p>
27. Preliminary Examination	<p>27.1 PAF-IAST shall examine the Bids to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, and whether 'the Bids are generally in order, among other indicators that may be used at this stage. PAF-IAST reserves the right to reject any Bid at this stage.</p>
28. Evaluation of Eligibility and Technical Qualification	<p>28.1 Eligibility and Technical Qualification of the Bidder will be evaluated against the Minimum Eligibility/ Qualification requirements specified in the Section 4: Evaluation Criteria.</p> <p>28.2 In general terms, Bidders that meet the following criteria may be considered qualified:</p> <ul style="list-style-type: none"> a) They are not included in the list of blacklisted or barred companies published on KPPRA website, any federal or provincial government department; b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments, c) They have the necessary experience, technical expertise, production capacity, quality certifications, quality assurance procedures and other resources applicable to the supply of goods and/ or services required; d) They are able to comply fully with the General Terms and Conditions of Contract; e) They do not have a consistent history of court/ arbitral award decisions against the Bidder; and f) They have a record of timely and satisfactory performance with their clients.
29. Evaluation of Bid Proposals	<p>29.1 The evaluation team shall review and evaluate the Bids on the basis of their responsiveness to the schedule of requirements and Technical Specifications and other documentation provided, applying the procedure indicated in the BDS and other ITB documents. When necessary, and if stated in the BDS, PAF- IAST may invite technically responsive bidders for a presentation related to their Bids. The conditions for the presentation shall be provided in the bid document where required.</p>
30. Due diligence	<p>30.1 PAF- IAST reserves the right to undertake a due diligence exercise aimed at determining to its satisfaction, the validity of the information provided by the Bidder. Such exercise shall be fully documented and may include, but need not be limited to, all or any combination of the following:</p> <ul style="list-style-type: none"> a) Verification of accuracy, correctness and authenticity of information provided by the Bidder. b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team. c) Inquiry and reference checking with Government entities with jurisdiction on the Bidder, or with previous clients, or any other entity that may have done business with the Bidder.

	<ul style="list-style-type: none"> d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of previous work, as deemed necessary; e) Physical inspection of the Bidder's offices, branches or other places where business transpires, with or without notice to the Bidder. f) Other means that PAF-IAST may deem appropriate, at any stage within the selection process, prior to declaring the Bidder as Qualified.
31. Clarification of Bids	<p>31.1 To assist in the examination, evaluation and comparison of Bids, PAF- IAST may, at its discretion, request any Bidder for a clarification of its Bid.</p> <p>31.2 PAF- IAST's request for clarification and the response shall be in writing and no change in the prices or substance of the Bid shall be sought, offered, or permitted, except to provide clarification, and confirm the correction of any arithmetic errors discovered by PAF-IAST in the evaluation of the Bids in accordance with the ITB.</p> <p>31.3 Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by PAF-IAST, may not be considered during the review and evaluation of the Bids.</p>
32. Responsiveness of Bid	<p>32.1 PAF-IAST's determination of a Bid's responsiveness will be based on the contents of the bid itself. A substantially responsive Bid is one that conforms to all the terms, conditions, specifications and other requirements of the ITB without material deviation, reservation, or omission.</p> <p>32.2 If a bid is not substantially responsive, it may be rejected by PAF-IAST and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.</p>
33. Right to Accept, Reject, Any or All Bids	<p>33.1 PAF-IAST reserves the right to accept or reject any proposal in response to the ITB, to render any or all of the proposals as non-responsive, and to reject all Proposals in response to the ITB at any time prior to award of contract, while assigning the reason(s) thereof.</p> <p>33.2 PAF- IAST shall not be obliged to award the contract to the lowest priced offer.</p>
34. Nonconformities, Repairable Errors and Omissions	<p>34.1 Provided that a Bid is substantially responsive, PAF-IAST may waive any nonconformities or omissions in the Bid that, in the opinion of PAF-IAST, do not constitute a material deviation.</p> <p>34.2 PAF-IAST may request the Bidder to submit the necessary information or documentation, within a reasonable period, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such an omission shall not be related to any aspect of the price. Failure of the Bidder to comply with the request may result in the rejection of its Bid.</p> <p>34.3 For the Price Schedule that are submitted, PAF-IAST shall check and correct arithmetical errors as follows:</p> <ul style="list-style-type: none"> a) if there is a discrepancy between the unit price and the line-item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line-item total shall be corrected, unless in the opinion of PAF-IAST there is an obvious misplacement of the decimal point in the unit price; in which case, the line item total as quoted shall govern and the unit price shall be corrected; b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and

	<p>c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail.</p> <p>34.4 If the Bidder does not accept the correction of errors made by PAF- IAST, its Bid shall be rejected.</p>
35. Bidder Grievance	35.1 PAF- IAST's grievance readdress procedure provides an opportunity for appeal to those bidders or firms not awarded a contract through a competitive procurement process. In the event that a Bidder believes that it was not treated fairly, the Bidder may lodge a complaint to the PAF-IAST's Grievance Readdress Committee.
E. AWARD OF CONTRACT	
36. Evaluation	<p>36.1 PAF-IAST will conduct the evaluation solely on the basis of response to this tender received from the firms.</p> <p>36.2 Evaluation shall be undertaken in the following steps:</p> <ol style="list-style-type: none"> Preliminary Examination including Technical Specifications and other compliances Arithmetical check and ranking of bidders who passed preliminary examination by price. Evaluation of prices <p>36.3 Price comparison shall be based on the landed price, including transportation, insurance and the total cost of ownership (including spare parts, consumption, installation, commissioning, training, special packaging, etc., where applicable)</p>
37. Integrity Pact	37.1 Bidders will also be required to submit a signed Integrity Pact on a stamp paper of appropriate value as part of their response. The text of Integrity Pact is available at Annex – I.
38. Award Criteria	<p>38.1 Prior to expiration of the period of Proposal validity, PAF-IAST shall award the contract to the Bidder that is found to be responsive to the requirements of the Technical Specifications and has offered the lowest price.</p> <p>38.2 PAF-IAST shall not be obliged to award the contract to the lowest priced offer, if the response is found deficient to the Technical Specifications and other compliances.</p> <p>38.3 In case of tie in Financial Bid Value, the Contract will be awarded to the bidder having closest match to the Technical Specifications.</p>
39. Contract Signing	<p>39.1 After the approval of any Work Award, a Contract Agreement on the stamp paper of appropriate value, shall be executed by PAF-IAST with Selected Bidder (i.e. Contractor) within 15 days from the date of issuance of Lol (Letter of Intent)/ Work Order.</p> <p>39.2 Failure to signing of Contract Agreement by the selected Bidder Firm with PAF-IAST within the stipulated time may constitute sufficient grounds for the annulment of the award, and forfeiture of the Bid Security, if any, and on which event, PAF- IAST may award the Contract to the Second highest rated or call for new Proposals.</p>
40. Right to Vary quantity at the Time of Award	40.1 At the time of award of Contract, PAF-IAST reserves the right to vary the quantity of goods and/ or services, without any change in the unit price or other terms and conditions.
41. Sample draft Contract	41.1 A sample draft Contract to be signed, containing applicable General Terms and Conditions can be found at Annex – II.

42. Performance Security	42.1 A performance security, if required in the BDS, shall be provided in the amount specified in BDS, well prior to the Contract signing by both parties. Where a performance security is required, the receipt of the performance security by PAF-IAST shall be a condition for rendering the contract effective.
43. Bank Guarantee for Advanced Payment	43.1 No Payment will be released in advance.
44. Liquidated Damages	<p>44.1 PAF-IAST shall apply Liquidated Damages for the damages and/ or risks caused to PAF-IAST resulting from the Contractor's delays or breach of its obligations as per Contract.</p> <p>a) In case of delay, the Procurement Committee, PAF-IAST reserves the right to impose a penalty not exceeding 10% of the total amount of the Contract Value at the rate as referred in the Sample Contract at Annexure – II.</p> <p>b) If the Contractor fails to complete work as per PAF-IAST requirement, the Rector, PAF-IAST reserves the right to reject it altogether or impose a penalty not exceeding 50% of the total amount of the Contract.</p> <p>c) If the Contractor fails to provide supplies/ services as per PAF-IAST requirements, PAF-IAST may forfeit his earnest money as well as Performance Security, and the work will be done at the risk and cost of Contractor.</p> <p>d) In case of any dispute, matter will be referred to Rector, PAF-IAST whose decision will be binding on both the parties.</p>
45. Force Majeure	45.1 "Force Majeure" means an event which is beyond the reasonable control of a party and which makes a party's performance of its obligations under the Purchase Order/ Work Order/ Contract impossible or so impractical as to be considered impossible under the circumstances, and includes, but is not limited to, War, Riots, Storm, Flood or other industrial actions (except where such strikes, lockouts or other industrial issues are within the power of the party invoking Force Majeure), confiscation or any other action by Government agencies. In all disputes between the parties as to matters arising pursuant to this Purchase Order/ Work Order/ Contract, the dispute will be referred to Project Director, PAF-IAST whose decision will be final.
46. Delivery of Goods	46.1 Contractor will be required to deliver the goods as per the Delivery Schedule referred in BDS without claiming any additional cost to the PAF-IAST at the designated site(s) and in quantities as referred in the Contract.
47. Payment Provisions	<p>47.1 Payment will be made only upon PAF- IAST's acceptance of the goods and/ or services performed. The terms of payment shall be within thirty (30) days, after receipt of invoice, and certification of acceptance of goods and/ or services issued by the proper authority in PAF: IAST. Payment will be affected by bank transfer in the currency of the contract.</p> <p>47.2 The Contractor shall provide all necessary supporting documents along with GST invoice, delivery challan and any other relevant documents as required by the PAF- IAST.</p>

Section 3. Bid Data Sheet

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

BDS No.	Ref. to Section.2	Data	Specific Instructions / Requirements
1.		Background of the Project	<p>Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology (PAF: IAST) is novel in its content and holistic in approach. The project concept is based on the slogan of “Skilling Pakistan” to create a high-quality technical education infrastructure. This unique educational institution in Pakistan will closely collaborate with several institutions in Austria and China and award multiple foreign degrees. This is a historic and visionary initiative as it is probably the first time that an institution will be established in Pakistan with many foreign universities giving degrees to students who study in it.</p>
2.		Objective	<p>The main objective of this Tender is to equip the PAF-IAST with financial sustainability and reduce the expenses on account of electricity cost which is a huge burden on budget in such critical economic conditions of the country.</p> <p>And provide a hassle-free (without load shedding) environment to the students and faculty to perform their academic and research work in a conducive and productive environment and deliver beyond the expectations</p>
3.		Scope of Work	<p>Supply, Installation and Commissioning of 1MW-Grid Connected Solar System at PAF-IAST Haripur.</p> <p>The required items in various Lots as referred in Section – 5 have been sought by PAF-IAST from a reputed Firms/ Companies. The supplier is expected to supply high quality products meeting the specification as stipulated in this ITB, which conforms to the international quality standards. The time specified for delivery, Installation and Commissioning in the tender form shall be deemed to be the essence of the contract and the Successful Bidder shall arrange within the specified period.</p> <p>Post-Delivery Warranty and Support Services</p> <p>It is required that Manufacturer’s Warranty and Post-delivery Bidder’s Support Services for at least two (02) year from the date of commissioning at PAF-IAST be provided by the Supplier within the quoted cost of items.</p> <p>Moreover, additional Warranty and Support Services for next four (04) years should be quoted separately by the Bidder on annual payment basis. However, it will be at sole discretion of PAF-IAST to avail additional Warranty and Support Services in subsequent year(s) or otherwise.</p> <p>The labor cost for the installation of equipment must be embedded in the product price.</p>

			<p>Bidder must provide all the necessary accessories along with the hardware.</p> <p>Bidder must quote the Software/ license cost separately (If applicable)</p> <p>Bidder must be responsible for any other hidden license/ licenses</p> <p>Bidder must provide training of Solar system operation and maintenance to at least 02 PAF-IAST persons (FOC)</p> <p>The product will be supplied along with all accessories, software, and user manuals. The supplier will ensure commissioning, onsite training, and after-sale services.</p>
4.	7	Language of the Bid	English
5.	22, 23, 27	Submitting Bids for Parts or subparts of the Schedule of Requirements (partial bids)	The Procurement Committee shall consider the Bids on complete solution basis as referred in Section – 5. Any item not quoted shall have reasonable grounds to reject the Bid.
6.	20	Alternative Bids	Not Allowed.
7.	21	Pre-Bid conference	Applicable will be held on 24 th July 2025.
8.	16	Bid Validity Period	180 days
9.	13	Bid Security/ Earnest Money (Refundable)	<p><u>Required in the amount of 2% of the Bid Value of each Lot (separately) against which the Bidder is participating.</u> In case of options, earnest money shall be based on the maximum quoted price of the same items in the Lot.</p> <p><u>Acceptable Forms of Bid Security:</u> Denominated in Pak Rupees duly issued by a Pakistani Bank or branch of a Foreign Bank, in the form of CDR/bank guarantee in favor of the Project Director, PAF-IAST</p>
10.	42	Liquidated Damages	<p>Will be imposed as follows:</p> <p>Percentage of contract price per day of delay: as referred in Draft Contract Sample in Annexure – II.</p>
11.	40	Performance Security	<p>Within one week of issuance of Lol/ Purchase Order and well prior to the signing of Contract, as 10% of the Contract value for the duration of Warranty period referred in RFP. The performance security should be duly issued by a Pakistani Bank or branch of a Foreign Bank, in the form of CDR/bank guarantee in favor of the Project Director, PAF-IAST. Any other form of PG will not be accepted.</p>
12.	12	Currency of Bid	Pakistani Rupees (PKR)
13.	31	Deadline for submitting requests for clarifications/ questions	5 days before the submission deadline

14.	31	Contact Details for submitting clarifications/ questions	Focal Person in PAF: IAST:
15.	18, 19, and 21	Manner of Disseminating Supplemental Information to the ITB and responses/ clarifications to queries	Direct communication to prospective Bidders by email and/ or Posting on the PAF: IAST website: attaullah.khan@spcai.paf-iaast.edu.pk procurement@paf-iaast.edu.pk http://www.paf-iaast.edu.pk/
16.	23	Deadline for Submission	5th August 2025 on or before 12:00 AM (PST)
17.	22	Number of Set(s) of Bid	Technical Proposal(s) - One (01) Original - Soft copy of Technical Proposal in a USB Flash Drive Financial Proposal(s) - One (01) Original <i>Note: Bidders are required to prepare and submit the Proposal(s) against the Lot(s) separately in separate envelopes, in which they intend to participate.</i>
18.	22	Allowable Manner of Submitting Bids	<input checked="" type="checkbox"/> Courier/by Hand
19.	22	Bid Submission Address	<input checked="" type="checkbox"/> <u>By Courier/ by Hand</u> Convener Procurement Committee, PAF- IAST, Mang, Haripur
20.	22	Electronic submission (email) requirements	Not Allowed
21.	25	Date, time and venue for the opening of bid	Date and Time: 5th august 2025 at 12:30 AM Venue: Conference Room, PAF-IAST, Mang, Haripur
22.	27, 36	Evaluation Method	Eligible and qualified bids meeting the PAF- IAST requirements and technically responsive as stipulated in this ITB
23.		Evaluation Method for the Award of Contract	Lowest priced technically responsive.
24.		Expected date for commencement of Contract	
25.		Maximum expected duration of Contract	48 months
26.	35	PAF: IAST will award the contract to:	One Bidder Only against each Lot
27.	39	Type and Contract Terms and Conditions that will apply	PAF-IAST General Terms and Conditions for Contracts for Goods and/ or Services as per Sample at Annex – II.

28.	46	Delivery, Installation and Testing/ Training		Delivery	Installation	Testing/ Training
			1MW Grid connected solar system for PAF-IAST	30 days	60 days	3 week

Section 4. Evaluation Criteria

Preliminary Examination Criteria

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

- Appropriate signatures
- Power of Attorney
- Minimum Bid documents provided.
- Bid Validity
- Bid Security submitted as per ITB requirements with compliant validity period.

Minimum Eligibility Criteria

Eligibility will be evaluated on a Pass/ Fail basis. If the Bid is submitted as a Joint Venture, there should be no more than two (02) companies in the Joint Venture and each company should meet the minimum criteria, unless otherwise specified.

ELIGIBILITY			
S. #	Subject	Criteria	Reference Returnable Form(s)
1.	Bidder's Status	Participating as <input type="checkbox"/> Individual Company <input type="checkbox"/> JV/ Consortium	Form B: Joint Venture/ Consortium/ Association Information Form
2.	Legal Status	Bidder is a legally registered entity in Pakistan. Bidder is/ are also registered with FBR for Income Tax and Sales Tax and must register with AEDB in C-1 category or above and licensed by PEC in category-3 or above	Form C: Bidder Information Form
3.	Location of Offices	Bidder (Lead Bidder) has declared office(s) in Islamabad/ Rawalpindi/ Peshawar/ Abbottabad or any other country of Pakistan.	Form C: Bidder Information Form
4.	Principal's Authorization	Bidder or at least one member of JV/ Consortium/ Association must be Authorized Partner/ Reseller/ Dealer for the supply and services of quoted goods/ services.	Form C: Bidder Information Form
5.	Company in Operation	Bidder (Lead Bidder) is in operation for at least Five (05) years.	Form C: Bidder Information Form
6.	Financial Strength	Average annual turnover over the last 3 years Rs. 100 million <i>(For JV/ Consortium/ Association, all Parties cumulatively should meet requirement).</i>	Form D: Qualification Form
7.	Relevant Experience	Minimum No. of Projects of similar nature, value, and complexity in last 3 years The bidder should have experience in design, manufacture, supply, Installation and commissioning of at least 1 MW at an educational institute (preferably) and upto 2.0 MW single project at any other industry; having experience of installing a single project of more than 2.0 MW at any industry would earn extra points to the participating firm. <i>(For JV/Consortium/ Association, all Parties cumulatively should meet requirement).</i>	Form D: Qualification Form Form E: Technical Proposal Form
8.	Eligibility	Bidder(s) is not suspended, nor debarred, nor otherwise identified as ineligible by any Government/ Semi-government/ Autonomous	Form A: Bid Submission Form

		organization in Pakistan, in accordance with ITB clause 3. Non-Blacklisting certificate will be required.	
9.	Bankruptcy	Bidder(s) has not declared bankruptcy, is not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against the vendor that could impair its operations in the foreseeable future.	Form A: Bid Submission Form
10.	Certificates and Licenses	<p>Bidder(s) related:</p> <ul style="list-style-type: none"> i Certificate of Registration of the business ii Certificate of Registration with FBR for both Income Tax and Sales Tax iii Certified Partner Status issued by Principal stating certified competencies for the proposed solution iv A proofing document confirms the offered Warranty & Post-commissioning Support and Services for at least tw (02) year within the quoted Unit Price(s), and for Four (04) years as Extended Warranty. v Provide copy of products Certifications compliant to standards as mentioned in Section 5b (7). vi Supporting photos, data sheets, documents depicting usage scenarios of the proposed items. 	Form C: Bidder Information Form
11.	Satisfactory Project Completion Certificate	In case the Bidder has dealt with PAF-IAST in the past for any project, Satisfactory Project Completion Certificate must be provided, duly issued by PAF-IAST.	Form D: Qualification Form

QUALIFICATION					
S. #	Attribute	Description	Max. Score	Criteria	Returnable Form(s)
	Section – I: General Corporate Profile		25		
10.	Bidder's Footprints	Number of offices/ services centers across the country	5	2+ offices fully operational for last four (4) year	Form C: Bidder Information Form
			3	2 offices fully operational for last four (4) year	
			1	At least 01 office fully operational for the last four (4) year	
11.	Bidder's Human Resource Strength	Number of full-time employees (documentary proof required)	8	20+employees clearly mention the responsibilities of each and have experience in execution of MW solar project (provide evidence).	Form C: Bidder Information Form
			6	20-10 employees clearly mention the responsibilities of each and have experience in execution of MW solar project (provide evidence).	
			4	5+employees clearly mention the responsibilities of each and have experience in execution of MW solar project (provide evidence).	
			2	Less than 5 employees clearly mention the responsibilities of each and have experience in execution of MW solar project (provide evidence).	
12.	Financial Standing	Annual Turnover averaged over the last 3 years	7	Annual turnover \geq 3x the estimated cost of the solar project	Form D: Qualification Form
			4	Annual turnover \geq 2x the estimated cost	
			2	Annual turnover \geq 1.5x the estimated cost	
13.	Annual Tax Paid	Annual Tax Paid averaged over the last 3 years	5	Rs. 5 million or more	Form D: Qualification Form
			3	Rs. 2 – 5 million	

			2	Rs. 1 – 2 million	
	Section – II: Business Profile/Relevant Experience		30		
14.	Relevant Experience	Project(s) of similar nature, value and complexity completed.	10	02+ Projects more than 1MW	Form D: Qualification Form
			7	At least 01 project more the 1MW	
			5	Greater than 0.5MW and less than 1MW	
15.	Public Sector Experience	Project(s) delivered to government organizations with a minimum capacity of 500KW each	10	02+ Projects more than 1MW	Form D: Qualification Form
			7	At least 01 project more the 1MW	
			5	Greater than 0.5MW and less than 1MW	
16.	Education Sector Experience	Project(s) completed at education institutions.	10	02+ Projects more than 1MW	Form D: Qualification Form
			7	At least 01 project more the 1MW	
			5	Greater than 0.5MW and less than 1MW	
	Section – III: Manufacturer's/ Product's Strengths		10		
18.	Manufacturer's Global Presence	Authorization letter from Manufacturers and Countries having supplied the same Quoted items	5	Case studies or performance data of previously installed solar systems may be attached for reference.	Form E: Project Proposal Form
19.	Manufacturer's Products Portfolio	Case studies or performance data of previously installed solar systems may be attached for reference.	5	- Include ISO certifications such as ISO 9001, and product compliance with IEC 61215 & IEC 61730. - Provide details of product warranties.	Form E: Project Proposal Form
	Section – IV: Registration & Certifications		10		
20.	Pakistan Engineering council registration	The bidder must possess a valid PEC registration in C-3 category or above, with specialized code EE11 (Solar Installation)	5	Copy of Valid Certificate	Form E: Project Proposal Form
21.	AEDB Certification	Bidder must have the certification from AEDB under C-1 category.	5	Copy of Valid Certificate	Form E: Project Proposal Form
	Section – V: Presentation on Project Proposal		25		
22.	Project Management Approach	Complete Plant Electrical Design The plan should include: Grid Compliance & Integration, 2. Electrical Single Line Diagrams (SLDs), Load Flow & Fault Analysis, Inverter & Transformer Design	5	To be assigned by the Technical Committee	Form E: Project Proposal Form

23.	Post-Commissioning Services	Overall approach towards after-sale support and services. May Includes: Operation & Maintenance (O&M) Plan Warranty Support Remote Monitoring & Reporting	5	To be assigned by the Technical Committee	Form E: Project Proposal Form
24.	Product/Project compliance	All the quoted products are compliant with the required specification of 1 MW solar system at PAF-IAST. May Includes: Compliance with Technical Specifications Certifications & Standards Product Datasheets Grid Compliance	15	To be assigned by the Technical Committee	From F: Project Compliance Form
Grand Total			100		
	Technical Evaluation	Bids shall be evaluated on both Eligibility and Technical Qualification Criteria. Bidders meeting the Eligibility Criteria and able to secure 70 percent in technical qualification shall be declared as Technically Qualified Bidders for the next step, i.e. Opening of Financial Bid.			
	Financial Evaluation	Detailed analysis of the price schedule based on requirements listed in Section 5 and quoted for by the bidders in Form F. Price comparison shall be based on the landed price, including transportation, insurance and the total cost of ownership (including spare parts, consumption, installation, commissioning, training, special packaging, etc., where applicable) Comparison with budget/ internal estimates. Tender will be awarded on least-cost basis .			

Section 5a: Technical Specifications of the Required 1MW Grid-connected Solar Plant at PAF-IAST

Project Name:

Design, Supply, Installation & Commissioning of 1MW-Grid Connected Solar System at PAF-IAST Haripur.

Site Introduction

The proposed location for the Solar Power Project is the rooftop of buildings/ any other place which feasible for solar panels installation at the Pak-Austria Fachhochschule: Institute of Applied Sciences and Technology (PAF-IAST), situated in Haripur, within the Khyber Pakhtunkhwa province of Pakistan.

Site Location

- Latitude: 33°59'22" N
- Longitude: 72°56'53" E
- Elevation: Approximately 520 meters above sea level

Existing Power Supply Arrangements:

Load at PAF-IAST is currently being powered through following supply sources: -

a) Main Power Supply

Electrical Power requirement for the PAF-IAST is met from National Grid (PESCO).

b) Emergency Power Supply

Generators capacities have been installed for providing back up supply to critical load.

There will be a pre-bid meeting to discuss all queries of bidders related to tender and bidders are allowed to visit the site for the assessment of existing power supply arrangement for proper synchronization of solar inverter with the national grid and diesel generator sets.

TECHNICAL REQUIREMENT

PAF-IAST desires to construct a solar power plant with a total installed capacity of 1.0 MW, designed to generate up to 1.0 MW of power during peak sunlight hours.

- Designing of Solar Based Power Plant
- Supply of Solar Based Power Plant
- Installation of Solar Based Power Plant
- Testing & Commissioning of Solar Based Power Plant

Base Structure:

The fixed based mechanical structure (adjustable) has been recommended to install with appropriate angle on the space available at site. To install the Solar PV modules, a good concrete structure of appropriate size would be paved on which mechanical structure for solar PV modules will be screwed. Proper civil work will be done

so as to cater wind speed of up to 130 Km/hr which is well above the maximum recorded wind speed of 45 Km/hour during the last few years.

Mounting Structure:

The fixed based P-1 structure has been suggested to be installed with an angle of 30° Degree on the space available at site. Mechanical Structure should be Hot Dip Aulminum iron material with vertical posts supported by concrete foundations base. To install the Solar PV modules, concrete of reasonable would be paved on which structure for solar PV modules will be screwed. Proper civil work will be done so as to cater wind speed of up to 130 Km/hr which is well above the maximum recorded wind speed of 45 Km/hour during the last few years.

Placement of Power Inverter:

The Bidder should clearly indicate the number of quantities placement of Power Inverters for each Building

Using of Cable Trays/ Tranches

The Bidder must ensure proper dressing of each cable using hot dip galvanized iron cable trays across the building.

Scope of Work/Services:

The scope covers **Design, supply, installation; testing, commissioning and performance testing of expected 1.0 MW Grid interactive solar system at PAF-IAST.** The Scope of work includes, but not limited to that, is as follows:

- The Scope of Services includes PV modules, On-Grid inverters, junction boxes, AC, DC distribution boards and cables, DC/AC Earthing, Lightening Arrestors with complete scope, net metering, communication interface, SCADA System with display Units, Weather Station and any other equipment necessary like OCPD, GFPD etc. for safe and efficient operation of the system.
- The scope of Services also includes interconnection of installed PV System with the national grid and separate energy meters for each building for billing.
- Comprehensive insurance, storage & in transit transportation is also the responsibility of successful bidder.
- The civil works for installation of complete system should also be in scope of successful bidder.
- The scope of Services should also include operation and maintenance of the Solar Power Generation System for agreed warranty Period.
- The scope of supply should also include essential spares necessary for operation, routine maintenance and testing of equipment supplied for agreed time period.
- The equipment offered should conform in all respects to high standards of engineering, design and workmanship and be capable of performing in commercial operation.

- All the fittings and accessories that might not have been mentioned specifically in the specification but are necessary for equipment's of the plant, should be deemed to be included in the scope of specification and shall be supplied and furnished by the installer without any extra charges.
- Successful Bidder must obey the guideline given by the PAF-IAST Management.
- It should be responsibility of the successful Bidder to ensure all the works as per scope of the specification are completed for safe and efficient working of the system by following BS OHSAS/ ISO standards. Health & Safety expert would be responsible to restrict Client to follow safety standards.
- The PAF-IAST is authorized to interpret during installation and authorized to verify equipment, detailed drawings, specification and should have the power to reject any work or materials, which in his judgment are not in full accordance therewith.

SOLAR PV SYSTEM SPECIFICATION TO BE REQUIRED

Solar PV system should consist of following equipment:

- i. PV Modules should have a minimum of 21.5% module efficiency (η) or higher and a linear warranty of 25-years with minimum 80% efficiency. Technology must be mono PERC N-type tier 1.
- ii. Efficient Grid Tie Inverters
- iii. SCADA System
- iv. Mounting structure
- v. Cables and associated infrastructure/hardware.
- vi. Civil/ Mechanical Works
- vii. Miscellaneous Item
 - a. Junction box and distribution boxes
 - b. Earthing & Lightening Protection System with Earthing kit
 - c. Lightning arrestors
 - d. PVC pipes and accessories
 - e. Tool kit
- viii. Spares for smooth operation

The following are some of the technical measures required to ensure quality of equipment used in grid connected solar photovoltaic power projects:

PV MODULE

- i. The total PV capacity should not be less than allocated capacity (1.0MWp). The provided PV Module should be of HJT, N-type, MONO, Tier-1 quality. The PV Module should have a minimum of over twenty one percent or higher (21.5%) module efficiency.
- ii. Brand should be verifiable and renowned have successful history of operation in similar climate condition.
- iii. PV module should operate between -25 to +60 degree.
- iv. Junction box IP 67 or better yet

- v. The PV module(s) shall contain Mono crystalline (PERC-N) silicon solar cells (A- grade).
- vi. The PV module have an ability to work well with high-voltage input Inverters/ charge controllers
- vii. The PV Panel must have clear anodized aluminium frame with Anti-reflection cover glass
- viii. The terminal box on the module should have a provision for opening for replacing the cable, if required and it should be waterproof
- ix. The Solar Panel shell meet the requirement set in IEC 61215:2000, IEC61730, IEC TS 62941. All the supportive valid, genuine and traceable documents must be provided.
- x. The modules to be used in a highly corrosive atmosphere throughout their lifetime must qualify to IEC 61701.
- xi. The PV module(s) should have an ability to work well with high-voltage input Inverters.
- xii. PV Module(s) should be provided with MC-4 Cable and Connector and IP-67 Rated.
- xiii. The terminal box on the Module(s) should have a provision for replacing the cable and it should be waterproof.
- xiv. A strip containing the following details should be laminated inside the module so as to be clearly visible from front side.
 - a. Name of the manufacturer of PV Module(s) or distinctive logo.
 - b. Name of the manufacturer of Solar Cell
 - c. Model or Type No.
 - d. Serial number
 - e. Year of manufacturing
 - f. Peak Watt Rating
 - g. Voltage and Current at Peak Power
 - h. Open Circuit Voltage
 - i. Short Circuit Current
 - j. Maximum input voltages
 - k. Module(s) deployed must use a RF identification tag.
- xv. Solar panel be packed for safe transportation on non-metallic roads.
- xvi. The PV Module should have at least ten-year workmanship warranty.
- xvii. Limited performance guarantees: panel power, in standard conditions, will not be less than 90% of nominal power for first 10 years of operation and at least 85% for the next 15 years of operation with 25-year limited power warranty and 15 year of product replacement warranty
- xviii. Bidder should carefully design and accommodate requisite number of module(s) to achieve the rated power as per design under NOCT as well.

Note: Bidder should justify the specs with appropriate lab test reports/certifications from the principal manufacturer.

GRID TIED INVERTER

The DC power produced is fed to inverter for conversion into AC. In a grid interactive system AC power should be fed to the grid at three phase 415 AC bus. Inverter should comply with IEC 61727, IEC 61000-6-1, IEC 61000-2, IEC 62109 and IEC 62116 standards. IEC 61683/IS 61683 for efficiency and Measurements and should comply IEC 60068-2 (1, 2, 14, 30) / Equivalent BIS Standard for environmental testing. Inverter should supervise the grid condition continuously and in the event of grid failure (or) under voltage (or) over voltage.

Other important Features/Protections required in the INVERTER

- i. The grid-connected inverters shall comply with UL 1741 standard.
- ii. Power generated from the solar system during the daytime should be utilized fully by powering the critical building loads and feeding excess power to the grid as long as grid is available. In cases, where solar power is not sufficient due to more demand or cloud cover etc. the building loads should be served by drawing power from the grid. The inverter should always give preference to the Solar Power and will use Grid/DG power only when the Solar Power is insufficient to meet the load requirement.
- iii. The output of the inverter must synchronize automatically its AC output to the exact AC voltage and frequency of the grid/DG Set.
- iv. Inverter equipped with array ground fault detection option.
- v. On-grid Inverters should have anti-islanded features built in and should continuously monitor the condition of the grid and in the event of grid failure; The solar system should be resynchronized with the grid within two minutes after the restoration of grid or DG set.
- vi. Grid voltage should also be continuously monitored and in the event of voltage going below a pre-set value and above a pre-set value, the solar system should be disconnected from the grid within the set time. Both over voltage and under voltage relays should have adjustable voltage (50% to 130%) and time settings (0 to 5 seconds).
- vii. The inverter control unit should be so designed so as to operate the PV system near its maximum Power Point (MPP), the operating point where the combined values of the current and voltage of the solar modules result in a maximum power output.
- viii. The inverter should be a true sine wave for a grid interactive PV system.
- ix. The degree of protection of the outdoor inverter panel should be at least IP-65.
- x. Typical technical features of the suggested inverters must mention as per following sequence.
 - Continuous output power rating (1.1 times for 60seconds)
 - Nominal AC output voltage and frequency
 - Accuracy of AC voltage control $\pm 1\%$
 - Accuracy of frequency control $\pm 0.5\%$.
 - Grid Frequency Control range ± 3 Hz
 - Maximum Input DC Voltage range
 - MPPT Range DC.

- Ambient temperature -20 deg C to 60 deg C
 - Humidity 95 % non- condensing
 - Protection of Enclosure IP-65 (minimum)
 - Grid Voltage tolerance -20 % and + 15 %
 - Power factor control 0.95 inductive to 0.95 capacitive
 - No-load losses < 1% of rated power
 - Inverter efficiency (minimum) plus 98% or above
 - Liquid crystal display should at least be provided on the inverters front panel or on separate data logging/display device to display following
 - a. DC Input Voltage
 - b. DC Input current
 - c. AC Power output(kW) and Energy harnessed in kWh
 - d. Current time and date
 - e. Time active
 - f. Time disabled
 - g. Time Idle
 - h. Temperatures (C)
 - i. Converter status
 - Following should also be displayed like Protective function limits, over voltage, AC under voltage, over frequency, under frequency, ground fault, PV starting voltage, PV stopping voltage, over voltage delay, under voltage delay over frequency, ground fault delay, PV starting delay, PV stopping delay.)
- xi. Nuts & bolts and the inverter enclosure should have to be adequately protected taking into consideration the atmosphere and weather prevailing in the area.
- xii. Dimension and weight of the inverter should be indicated by the bidder in the offer.
- xiii. All doors, covers, panels and cable exits should be gasketed or otherwise designed to limit the entry of dust and moisture.
- xiv. Operation Mode:
- Night or sleep mode: where the Inverter is almost completely turned off, with just the timer and control system still in operation, losses shall be less than 2 W per 5 kW.
 - Standby mode: where the control system continuously monitors the output of the solar generator until pre-set value is exceeded (maximum 6 W).
 - Operational of MPP tracking mode: the control system continuously adjusts the voltage of the generator to optimize the power available. The power conditioner should automatically re-enter standby mode input power reduces below the standby mode threshold. Front panel should provide display of status of the inverter.
 - 5 year standard replacement warranty and 25 year support warranty.

Note: Bidder should justify the specs with appropriate lab test reports/certifications from the principal manufacturer.

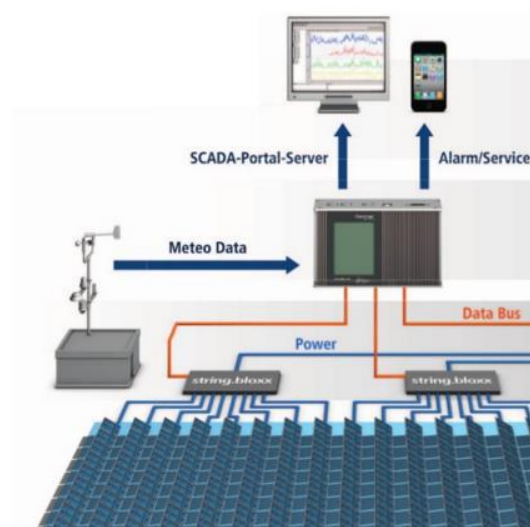
Junction Boxes

SMART Junction boxes with the multi-function of string monitor to detect each string's voltage, current, and power, plus fault detection and surge protection function. The array junction box has been suitably designed to be integrated into the PV plant. The junction boxes shall have suitable arrangement for the followings.

- Provide arrangement for disconnection for each of the groups.
- Provide a test point for each sub-group for quick fault location.
- To provide group array isolation.
- The current carrying ratings of the junction boxes shall be suitable with adequate safety factor to interconnect the Solar PV array.
- To include data collector for Monitoring System. A DC string meter is integrated into a DC box to provide the capability of collecting the required data/information of string level.

Monitoring & Data Logging

A state-of-the-art data monitoring/logging system, capable of local and remote monitoring so as to provide timely and accurate performance of the plant on continuous basis is required on site. All monitoring data will be transmitted to the control room for logging and monitoring of the performance of each inverter. Data logging software is employed for automatic storage of the measured data from PV Plant over a prolonged period of time. Control room shall have a control panel containing all the measuring instruments such as voltmeter, ammeter, frequency meter and electronic energy meter for measuring the deliverable units sold to utility grid. Block diagram of monitoring system is given below:



Mounting Structure

Fixed Mounting Structure

- i. The main mounting structure will be fixed/adjustable, tilted at an appropriate angle, facing south and will be made of Aluminium or Steel Hot Dip Galvanized material with vertical posts supported by concrete foundations base 3 inches above roof top level. However, Tilt angle should be optimum for summer and winter seasons. Mechanical provisions should be provided in the structure to shift the tilt angles to the seasonal optimum values.
- ii. The mounting structure must be engineered for wind resistance of 130km/h, allow air circulation for cooling in high temperature.
- iii. Module should be fixed with the frame through pure SS Rawal bolts. The bolts should be tightened at the required angle.
- iv. The Nuts, Bolts & Washers/Spring Washers for modules & Mounting structures must be stainless steel material with appropriate gauge (14 or plus)
- v. The entire mechanical structure should be made of aluminium/steel hot dip galvanized with appropriate rating for longer life of the structure.
- vi. Shading shall be avoided all over the year (around) from 30 minutes after the sunrise to 30 minutes before sunset (For installation purpose only).
- vii. To allow regular cleaning of the solar modules, they should be easily accessible for personnel (For installation purpose only). Therefore, no more than 75% of a given space, may be utilized panel installation. The remaining 25% space provide for cleaning and safety personnel in case of emergency.
- viii. Each panel frame structure shall be so fabricated as to be grouted using Rawal bolts in cement concrete foundation with steel frame structure at the site.
- ix. Foundation/mounting structure should be fabricated and installed to achieve full life of 25 years under the local climatic conditions.

Wires and Cables:

- i. The main cable and LT cables of appropriate sizes from transformer/PESCO (Changeover switch) supply of all buildings to inverter rooms shall be 1.1 grade, heavy duty, stranded copper conductor, PVC type A insulated, galvanized steel wire/strip armored, flame retardant low smoke (FRLS) extruded PVC type ST-1 outer sheathed. The cables shall, in general conform to IS-1554 P+I & other relevant standards.
- ii. External cables should be specifically adapted to outdoor exposure (see IEC 60811). Especially the outer insulation must be sunlight (UV)-resistant, weatherproof and designed for underground installation. Preferably tin coated copper UV resistant DC cables shall be used.

- iii. The temperature resistance of all interconnecting wires and cables should be $> 75^{\circ} \text{C}$. The minimum acceptable cross-section of the wire in each of the following sub-circuits is as in ISO IEC prescription:
- iv. All wiring should be color-coded (and/ labeled in case of service providers.)
- v. All supplied wires must be in UV-resistant conduits or be firmly fastened to the building and/or support structure. Cable binders, clamps and other fixing material must also be UV-resistant, preferably made of polyethylene (for the case of service providers)
- vi. All connections should be properly terminated, soldered and/or sealed from outdoor and indoor elements. Relevant codes and operating manuals must be followed.
- vii. The cable rating should be explicitly mentioned in the technical document i.e. the size, current rating & voltage rating and ohmic drop information etc.
- viii. GI cable trays for DC, earth and communication cables to be placed on rooftops as well are required.

Protections and Control

- i. PV system software and control system should be equipped with islanding protection as described above. In addition to disconnection from the grid (islanding protection i.e. on no supply) , under and over voltage conditions, PV systems should be provided with adequate rating fuses, fuses on inverter input side (DC) as well as output side (AC) side for overload and short circuit protection and disconnecting switches to isolate the DC and AC system for maintenance as needed. Fuses of adequate rating should also be provided in each string of solar module to protect them against short circuit.
- ii. A manual disconnect switch beside automatic disconnection to grid should also be provided at utility end to isolate the grid connection by the utility personal to carry out any maintenance. This switch should be locked by the utility personal.
- iii. Emergency switch should be part of scheme to disconnect the entire PV plant in case of emergency.
- iv. **The solar plant should be able to supply power/electricity during the WAPDA outage, All the solar plant equipment should work properly with any interruption.**

Earthing& Protection System from Lightning

Earthing is essential for the protection of the equipment & manpower. Two main grounds used in the power equipment are:

- 1. System earth
- 2. Equipment earth

The complete set suitably designed Lightning protection and earthing system should be installed for 1.0MW solar power plant. For this purpose, appropriate units of lightning arrestor shall be set up to sufficiently cover the radius of the power plant (as per location of the site) for its protection from lightning. These shall operate by acting as receptors capturing the lightning and defusing it before it reaches the PV or other sub-system components.

- i. System earth is earth which is used to ground one leg of the circuit. For example, in AC circuits the Neutral is earthed.

- ii. In case of equipment earth all the non-current carrying metal parts are bonded together and connected to earth to prevent shock to the manpower & also the protection of the equipment in case of any accidental contact.
- iii. To prevent the damage due to lightning the one terminal of the lightning protection arrangement is also earthed. The provision for lightning & surge protection of the SPV power source is required to be made.
- iv. In case the SPV Array cannot be installed close to the equipment to be powered & a separate earth has been provided for SPV System, it shall be ensured that all the earths are bonded together to prevent the development of potential difference between two earths.
- v. Earth resistance shall not be more than 5 ohms. It shall be ensured that all the earths are bonded together to make them at the same potential.
- vi. The Earthing conductor should be 1.56 times the short circuit current. The area of cross-section shall not be less than 1.6 sq mm in any case.
- vii. The array structure of the PV modules shall be grounded properly using adequate numbers of earthing pits. All metal casing/ shielding of the plant shall be thoroughly grounded to ensure safety of the power plant.

Civil Works

The following civil works should be carried out with successful bidder:

- i. Cutting and clearing of trees/plantation to remove the shadow.
- ii. Cast-in-situ RCC foundation for mounting PV module/solar panels are preferred.
- iii. Rooftop load bearing should be reviewed in conjunction in civil design for mounting of solar panels.
- iv. Lying of earthing equipment /structures and connecting to the main ground mat as per the statutory requirements.
- v. Construction works where necessary to be in consultation with works Department.

Net Metering Configuration Options

- i. The contractor shall be responsible for obtaining power generation license and all the related approvals from NEPRA/PESCO/WAPDA/ for the permission of the project.
- ii. The contractor shall ensure that the system installed will technically conform to all pre-requisite requirements for Wheeling/Net-metering as per DISCO/ PESCO/NEPRA/or any other related organization requirements. Bidder shall be responsible for net-metering and all related processes to get a Net Metering License as per PAF-IASST request.
- iii. Details of Net Metering scope clearly mentioning the documentation formalities, installation of HT meter with isolator switch and CTs etc. would be included in scope of successful bidders.
- iv. Synchronization and interlocking details with PESCO and generators.
- v. Load flow analysis to be carried out by successful bidders. The metering system for Billing should be of good quality and from WAPDA certified Companies.

- vi. The utility meter (Net-meter) has to be bi-directional meter to register both import grid electricity amount as well as export solar electricity amount.

Miscellaneous Items for Installation

a) Wiring PVC/GI Channel Ducts

A product of good quality standard material with suitable size to be provided / used.

b) Flexible PVC Pipe

The flexible PVC pipe should be of good quality material with suitable size.

c) Combiner Box

Combiner Box should be manufactured through GI material with 100% copper strip in it for termination of PV Arrays.

Other Features:

- i. The PV Module(s) should be warranted for a minimum period of 25 years from the date of supply, inverter with five years from the date of installation. The warranty card to be supplied with the system must contain the details of the system. The manufacturers can also provide additional information about the system and conditions of warranty as necessary.
- ii. Adequate space should be provided behind the PV module/array for allowing unobstructed airflow for passive cooling.
- iii. All wiring should be in proper conduit of capping casing. Wire should not be hanging loose.
- iv. Instruction and O&M manuals
 - ✓ Two copies of Instruction and Operation and Maintenance Manual in English and local language should be provided with the system.
 - ✓ The manual shall be furnished at the time of dispatch of the equipment and shall include the following aspects:
 - a. Precautions during unpacking
 - b. Instructions for handling at site.
 - c. Erection drawings with written assembly instructions that would enable the Employer to carry out erection with his own personnel if opted by him.
 - d. Detailed instructions and procedures for the installation operation and maintenance.
 - e. Pre-commissioning tests.
 - f. About solar PV system – its components and expected performance.
 - g. Clear instructions about mounting of PV module (s)
 - h. About electronics
 - i. DO's and DONT's
 - j. Principle of Operation of various equipment
 - k. Safety and reliability aspects
 - l. Metering scheme

- m. About power conditioning units' software and controls
- n. Clear instructions on regular maintenance and troubleshooting of solar power plant.
- o. Name and address of the person or service center to be contacted in case of failure or complaint.
- p. Outline dimension drawings showing relevant cross-sectional views, earthing details, constructional features. Rated voltages and current etc.

Harmonics Standard:

As per the standard of IEEE 519, the permissible individual harmonics level shall be less than 3% (for both voltage and current harmonics) and Total Harmonics Distortion (THD) for both voltage and current harmonics of the system shall be less than 5%.

Performance Monitoring:

All grid solar PV power projects must install necessary equipment to continuously measure solar irradiance, ambient temperature, wind speed and other weather parameters and simultaneously measure the generation of DC power as well as AC power generated from the plant. They will be required to submit this data to Procurer or any other designated agency online and/or through a report on regular basis every month for the entire duration of CONTRACT. In this regard they shall mandatorily also grant access to Procurer or any other designated agency to the remote monitoring portal of the power plants on a 24X7 basis.

Water Cleaning Network

- i. Panel water cleaning system should be provided by bidder in case of accumulation of dust.
- ii. Access to solar panels for cleaning/maintenance should be catered for in design and cleaning system should be automatic and can be operate manual as well when needed.

Tools and Spares

List of tools & machinery to be provided along with a complete list of commissioning and O&M spare

Note:

1. PAF-IAST may re-adjust the quantities within the total quantities specified against the specifications of same genre in any of the Lots.
2. The Bidder shall indicate in their offer,
 - a. detailed specifications of their offered product(s),
 - b. standard accessories,
 - c. make and origin, as part of confirming Compliance as per the format given in Form – D.
3. The Unit Price, Total Bid Price, and Additional Warranty Price of the quoted items shall be indicated as per the given format in Form – G.

Section 5b: Special Terms and Conditions

Standard

- The goods supplied must be capable of functioning properly under the climatic conditions of Haripur.
- There shall be no deviation from specification and country of make as provided with each item. In case of any ambiguity in specification/ accessories needed for the full functioning of the equipment, the firm must clear it with the Procurement Committee. However, the decision of the Procurement Committee will be final.
- The goods with standard accessories supplied under this tender shall confirm to the standard maintenance in the technical specification.

Training

- The firm supplying the item/ equipment(s) will demonstrate the operation/ working of the supplied goods to the satisfaction of PAF- IAST and provide training. Suppliers are advised to provide details on formal training for the LOT(s) covering aspects as mentioned below, but not limited to, as required in Form – E (Section 3).

LOT(s)			
Level			5
Basic	Demonstrate the operations/ working to end users; Identify the do's and don'ts; and aspects deem necessary for long-life functioning of supplied goods.		
Hands-on		Demonstrate technical features; Elaborate technical configuration(s) performed for integration with the overall setup; Documented guidelines for generating reports using software and/ or systems' interface	
Advanced			Provide trainings to Operators for troubleshooting and smooth operations using system manuals

Calibration of item/ equipment

- The supplier will install the good(s) in the presence and satisfaction of the Procurement Committee, if need be. In case of any defect in the supplied good(s) or if it is not in accordance with the desired specification(s), the goods will be changed at the cost of the supplier.

Warranty/ Guarantee

- The Supplier will give comprehensive onsite warranty/ guarantee that the goods/ stores/ articles would continue to conform to the description and quality as specified for a period of at least two (02) year from the date of delivery, installation and commissioning of the said goods/ stores/ articles to be purchased and that notwithstanding the fact that the purchaser may have inspected and/ or approved the said goods/ stores/ article, if during the aforesaid period, the said goods/ stores/ articles, be discovered not to conform to the description and quality aforesaid or have determined (and the decision of the Procurement Committee in that context will be final and conclusive), the PAF – IAST will be entitled to reject the said goods/ stores/ articles or such portion thereof as may be discovered not to conform to the said description and quality, on such rejection the goods/ articles/ stores will be at the supplier's risk and all the provisions relating to rejection of goods etc. shall apply.
- The Supplier shall, if so called upon to do, replace the goods etc., or such portion thereof as is rejected by Procurement Committee, otherwise the supplier shall pay such damage as may arise by the reason of the breach of the condition herein contained. Nothing herein contained shall prejudice any other right of the Procurement Committee in that behalf under the contract or otherwise.

- The Supplier shall also replace equipment, in case it is found defective which cannot be put to operation due to manufacturing defect, etc. In case of equipment specified by the Procurement Committee, the supplier shall be responsible from carrying out annual maintenance and repairs on the terms and conditions as may be agreed. The supplier shall also be responsible to ensure adequate regular supply of spare parts needed for a specific type of equipment whether under their annual maintenance and repairs contract or otherwise. In case of change of model, supplier will give sufficient notice to the Procurement Committee who may like to purchase spare parts from them to maintain the equipment in perfect condition.

Section 6: Returnable Bidding Forms / Checklist

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

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

Bid Proposal:

Have you duly completed all the Returnable Bidding Forms?	
<input type="checkbox"/> Form A: Bid Submission Form	<input type="checkbox"/>
<input type="checkbox"/> Form B: Joint Venture/Consortium/ Association Information Form	<input type="checkbox"/>
<input type="checkbox"/> Form C: Bidder Information Form	<input type="checkbox"/>
<input type="checkbox"/> Form D: Qualification Form	<input type="checkbox"/>
<input type="checkbox"/> Form E: Bid Proposal Form	<input type="checkbox"/>
<input type="checkbox"/> Form F: Specifications Compliance Form	<input type="checkbox"/>
<input type="checkbox"/> Form G: Price Schedule Form	<input type="checkbox"/>
Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?	<input type="checkbox"/>

Form A: Bid Submission Form

(To be Submitted in an envelope duly sealed and marked as Technical Proposal)

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

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

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

- a) is not under procurement prohibition by any of the Government/ Semi-government/ Autonomous organization;
- b) have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any Organization in Pakistan;
- c) have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against us that could impair our operations in the foreseeable future;
- d) undertake not to engage in proscribed practices, including but not limited to corruption, fraud, coercion, collusion, obstruction, or any other unethical practice, with the PAF: IAST, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the PAF: IAST.

We declare that all the information and statements made in this Bid are true and we accept that any misinterpretation or misrepresentation contained in this Bid may lead to our disqualification and/ or sanctioning by the PAF-IAST.

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

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

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

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

Name: _____

Title: _____

Date: _____

Signature: _____

[Stamp with official stamp of the Bidder]

Form B: Joint Venture/ Consortium/ Association Information Form

(To be Submitted in an envelope duly sealed and marked as Technical Proposal)

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

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

No	Name of Partner and contact information <i>(address, telephone numbers, fax numbers, e-mail address)</i>	Proposed proportion of responsibilities (in %) and type of goods and/or services to be performed
1	[Complete]	[Complete]
2	[Complete]	[Complete]
3	[Complete]	[Complete]

Name of leading partner (with authority to bind the JV, Consortium, Association during the ITB process and, in the event a Contract is awarded, during contract execution)	[Complete]
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We have attached a copy of the below referenced document signed by every partner, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture:

☐ Letter of intent to form a joint venture **OR** ☐ JV/Consortium/Association agreement

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

Name of partner: _____

Name of partner: _____

Signature: _____

Signature: _____

Date: _____

Date: _____

Name of partner: _____

Name of partner: _____

Signature: _____

Signature: _____

Date: _____

Date: _____

Form C: Bidder Information Form

(To be Submitted in an envelope duly sealed and marked as Technical Proposal)

Legal name of Bidder	[Complete]
Legal address & Branch Offices	[Complete]
Year of registration	[Complete]
Bidder's Authorized Representative Information	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
Are you a PAF – IAST registered vendor?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, [insert PAF- IAST vendor number]
Countries of operation	[Complete]
No. of full-time employees	[Complete]
No. of Technical Staff	
Quality Assurance Certification (e.g. ISO 9000 or Equivalent) <i>(If yes, provide a Copy of the valid Certificate):</i>	[Complete]
Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? <i>(If yes, provide a Copy of the valid Certificate):</i>	[Complete]
Does your Company have a written Statement of its Environmental Policy? <i>(If yes, provide a Copy)</i>	[Complete]
Does your organization demonstrates significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies, education, vocational trainings, social responsibility towards people with Special needs, or membership of trade institutions promoting such issues	[Complete]
Contact person that PAF: IAST may contact for requests for clarifications during Bid evaluation (Only Lead Bidder)	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]

Please attach the following documents:

1. Company Profile, which should not exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods and/ or services being procured.
2. Proposed timetable for delivery, installation and commissioning plan for the required and quoted items to PAF – IAST after the award of Contract.
3. Certificate of Registration of the business.
4. Principal's Authorization Letter in favor of Bidder to participate in this Tender.
5. A proofing document confirms the offered warranty for at least One (01) year, supported by the manufacturer's certificates, if applicable.
6. A proofing document confirming supply of same or similar items of this magnitude to various clients/ customers in Pakistan.
7. Proven records of no less than the required Projects of similar nature/ value/ complexity in which delivery and services were extended.
8. Full detailed description of the specifications of the proposed items in addition to catalogues clearly showing the proposed specifications responding to the requirements.
9. Supporting photos of the proposed items.
10. Quality certifications: ISO 9001:2015 (if applicable)
11. Latest Audited Financial Statements (Income Statement and Balance Sheet) including Auditor's Report for the past (3 years).

Note: To be filled in by each partner in case Bid is submitted as a JV/ Consortium/ Association

Form D: Qualification Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

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

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

Previous Relevant Experience

Please list all Projects successfully completed in the last 3 years, covering following aspects;

- Scope of the projects/ assignments.
- Activities performed for the successful completion of the project.
- Support Services Contracts in hand with SLA for the supplied goods.

List only those assignments for which the Bidder was legally contracted or sub-contracted by the Client as a company or was one of the Consortium/ JV partners. Assignments completed by the Bidder's individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Bidder should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by PAF- IAST.

Project name & Country of Assignment	Client & Reference Contact Details	Contract Value	Period of activity and status	Types of activities undertaken

Bidders may also attach their own Project Data Sheets with more details for assignments above.

History of Non-Performing Contracts

<input type="checkbox"/> Non-performing contracts did not occur during the last 3 years			
<input type="checkbox"/> Contract(s) not performed in the last 3 years			
Year	Non- performed portion of contract	Contract Identification	Total Contract Amount (current value in US\$)
		Name of Client: Address of Client: Reason(s) for non-performance:	

Financial Standing

Annual Turnover for the last 3 years	Year	PKR
	Year	PKR
	Year	PKR

Latest Credit Rating (if any), indicate the source

Financial information (in PKR equivalent)	Historic information for the last 3 years		
	Year 1	Year 2	Year 3
	<i>Information from Balance Sheet</i>		
Total Assets (TA)			
Total Liabilities (TL)			
Current Assets (CA)			
Current Liabilities (CL)			
	<i>Information from Income Statement</i>		
Total / Gross Revenue (TR)			
Profits Before Taxes (PBT)			
Net Profit			
Current Ratio			

☐ Attached are copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition:

- a) Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies;
- b) Historic financial statements must be audited by a certified public accountant;
- c) Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.

Form E: Technical Proposal Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

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

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

SECTION 1: Qualification, capacity and expertise

- 1.1 Bidder's general organizational capability: management structure, financial stability and project financing capacity, project management controls, extent of work to be subcontracted (if so, provide details).
- 1.2 Bidder's relevance of specialized knowledge and experience on similar engagements done in the region/ country. Bidder should submit a detailed description of the projects executed (quantities, value, beneficiary)
- 1.3 Manufacturer's strengths covering the regional/ global market presence, hi-tech products portfolio, manufacturing capacity, R&D activities resulting in national and international patents, quality control and assurance practices, and international certifications in relevant areas.

SECTION 2: Management Structure and Key Personnel

- 2.1 Describe the overall management approach toward planning and implementing the project. Include an organization chart for the management of project describing relationship of key positions and designations.
- 2.2 Provide CVs for key personnel that will be provided to support the implementation of this project using the format below. CVs should demonstrate qualifications in areas relevant to scope of goods and/or services.

Format for CV of Proposed Key Personnel

Name of Personnel	[Insert]
Position	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]
Education/ Qualifications	<i>[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]</i> [Insert]
Professional certifications	<i>[Provide details of professional certifications relevant to the scope of goods and/or services]</i> <input type="checkbox"/> Name of institution: [Insert] <input type="checkbox"/> Date of certification: [Insert]
Employment Record/ Experience	<i>[List all positions held by personnel (starting with present position, list in reverse order), giving dates, names of employing organization, title of position and location of employment.]</i> [Insert]

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

SECTION 3: Scope of Supply, Technical Specifications and Training(s)

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

- 3.1 A detailed description of how the Bidder will deliver the required goods and services, keeping in mind the appropriateness to local conditions and project environment. Details how the different service elements shall be organized, controlled and delivered.
- 3.2 Explain whether any work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.
- 3.3 Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.
- 3.4 Details on post-deployment trainings on-site hands-on training for LOT # 2

SECTION 4: Registration & Certifications

This section should demonstrate the Bidder's responsiveness towards its registration with the relevant national body and international organizations Certifying the bidder's qualifications with respect to Quality and Project Management.

- 4.1 Provide a copy of valid registration with the Pakistan Engineering Council (if applicable).
- 4.2 Provide a copy of valid Certificate issued by International Organization for Standardization certifying the bidder's compliance and practices towards quality management principles and standards in their offered products/ solutions and services.
- 4.3 Provide a copy of valid Certificate issued by International Organization for Standardization certifying the bidder's compliance and practices towards information security management principles and standards in their offered products/ solutions and services.

SECTION 5: Warranty and Support Services

This section should demonstrate the Bidder's responsiveness to the post-commissioning warranty and support services of the goods supplied, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the requirements. All important aspects should be addressed in sufficient detail.

- 5.1 A detailed description of how the Bidder will provide the Warranty claims to the users, keeping in mind the span and complexity of the project in context of local conditions and project environment.
- 5.2 Explain whether any services or work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.
- 5.3 Details how the post-delivery/ deployment Support Services will be provided to the users keeping in consideration the criticality of IT systems, and dependency of university administration and operations on such systems.

Form F: Specifications Compliance Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

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

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

Your response Compliance with specifications			
Goods and services to be Supplied (based on the Technical Specifications provided in Section 5a & Section 5b)	Comply (Yes/ No) (If No, indicate discrepancies)	Quoted Specifications	Type/ Model no. & Country of Origin
Required Items		Offered Items	
1MW Grid Connected Solar System at PAF- IAST			
	Specification #1		
	Specification #2		
	Specification #3		
	Specification #4		
	Specification #5		

(Bidders are required to attach
Compliance Comparison Sheet
supported by Product Data
Sheet against the Specifications
provided in Section – 5)

Form G: Price Schedule Form

(To be Submitted in a separate and sealed envelope duly marked as Financial Proposal)

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

[The Bidder is required to prepare the Price Schedule following the below format. The Price Schedule must include a detailed cost breakdown of all goods and related services to be provided.]

We, the <<Name of Bidder>>, hereby submit our Financial Bid for the Supply of Items as below. We assure you of our full compliance to the required specifications, delivery schedule and other terms without any deviation and/ or reservations. We reiterate our acceptance to the terms and conditions of the RFP. Our Financial proposal as below is submitted for your kind consideration;

Quoted Items in compliance to the Technical Specifications as referred in Section – 5a and Section – 5b		Quantity (a)	Unit Price [in Rs.] (b)	GST [in Rs.] (c)	Total Price [in Rs.] $d=a*[b+c]$
1MW Grid Connected Solar System at PAF-IAST					
1	Items				

Extended Warranty Price (at discretion of PAF-IAST)

Annual Warranty & Support Services beyond Standard Warranty of the Quoted Items		3 rd Year (in PKR)	4 th Year (in PKR)	5 th Year (in PKR)
1MW Grid Connected Solar System at PAF-IAST				
1	items			

Total Bid Value in Figures (including Extended Warranty Price): _____

Total Bid Value in words (including Extended Warranty Price): _____

Name & Designation of Authorized Person: _____

Signature: _____ (Please affix company stamp here)

Note: Quoted price must be inclusive of all taxes and duties.

Annex – I: Integrity Pact

The Bidders will be required to submit the below text on stamp paper after filling in the details and duly signed as well as stamped, as part of their Technical Proposal.

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC
PAYABLE BY THE SUPPLIER OF GOODS, SERVICES & WORK IN CONTRACTS WORTH
RS. 10.0 MILLION OR MORE

(To be filled by the bidder as a part of technical proposal)

Contract Number: _____ Dated: _____

Contract Value: _____

Contract Title: _____

_____ hereby declare that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP) through any corrupt business partner.

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

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

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

Notwithstanding any rights and remedies exercised by GoP in this regard, _____ agrees to identify 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 _____ as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever from GoP.

[Buyer] [Seller / Supplier]

Annex – II: Draft Contract Sample

Available at PAF: IAST website at <http://www.paf-iastr.edu.pk/downloads>