




The Pakistan Academy of Sciences

CORRIGENDUM TENDER NOTICE

Reference is made to the PAS Tender Notice No. TS542264E, uploaded on the PPRA and the PAS website wherein, the bid submission and the opening date is **Thursday, July 12, 2024**, at 1400 and 1500 hours respectively. This is to inform all potential bidders to address the following correction in the tender notice:

1. **Bid Submission:** The Bid submission deadline is **July 15, 2024 (Monday)** at **02:00 pm** and will be opened on the same day at **03:00 pm** in the committee room of the Pakistan Academy of Sciences.
2. **PAS Bank Account (IBAN):** PK25NBPA1539004004629269 of National Bank of Pakistan, PARC Branch, Islamabad.

Director Administration,
Pakistan Academy of Sciences Secretariat
3-Constitution Avenue, Sector G-5/2, Islamabad
Phone: 92- 51- 9215478, Email: admin@paspk.org, Website: www.paspk.org

. 26/6/2024



TENDER NOTICE

The **Pakistan Academy of Sciences (PAS)** invites proposals from vendors licensed by the Pakistan Engineering Council (PEC) and having valid GST, and NTN Certificates and are also on ATL (Active Taxpayer List) with adequate relevant experience and capabilities for the below-captioned Tender as per Public Procurement Regulatory Authority (PPRA) rules:

Sr. #	Description
1	Upgradation of Existing 15 KW Solar Electric Power Generation System to On-Grid 50 kW Capacity with Net-Metering (Supply, Installation & Commissioning)

- **Bidding Procedure:** PPRA rule 36 (b), Single Stage Two Envelope Procedure for open competitive bidding shall be adopted (most advantageous bid) i.e. technically qualify but financially lowest.
- **Tender Related Documents:** Duly stamped Tender Documents which contain detailed specifications should be obtained from the website of Pakistan Academy of Sciences/PPRA by depositing Rs. 1000/- (non-refundable) in the PAS Bank Account No. "PK25NBPA1539004004629269 of National Bank of Pakistan, PARC Branch, Islamabad" as Tender Document Fee. No Bid for tender will be accepted without evidence of payment of tender fee and earnest money.
- **Terms and Conditions:**
 - a) Bidder's Proposal/Bid/Offer must be received, physically at the office of **Director Administration, Pakistan Academy of Sciences, 3-Constitution Avenue, Sector G-5/2, Islamabad**, as well as apply to **PPRA-EPADS (e-Pak Acquisition and Disposal System)** by the date and time specified herein (i.e. Thursday, July 12, 2024, at 1400 hours). PAS will not be responsible for any delays in delivery or expenses for the development or delivery of proposals. Any Proposal/Bid/Offer received after the Proposal/Bid/Offer submission date and time shall be rejected.
 - b) Bids must include bid security as stipulated in the bidding specifications.
 - c) It is mandatory for a bidder to submit a bid for this tender to **PPRA-EPADS (e-Pak Acquisition and Disposal Systems)** as well as submit the physical bid on or before the submission **Deadline, i.e., Thursday, July 12, 2024 in sealed envelopes at 1400 hours**. Technical bids will be opened at 1500 hours on the same day at the Auditorium, Pakistan Academy of Sciences (PAS), Islamabad in the presence of bidders' representatives who choose to attend at the same address. No bid for the entire proposal/package will be accepted without evidence of Submission of Tender Fee and Earnest Money. Bids for the entire proposal/package will be rejected if not received in Physical Form at the Academy (PAS) as well as on **PPRA-EPADS system** before the submission deadline.
 - d) Incomplete or conditional proposals will not be considered or accepted.



Director Administration
Pakistan Academy of Sciences (PAS)
3-Constitution Avenue, G-5/2, Islamabad
Phone: 051-9215478, Email: admin@paspk.org,
website: www.paspk.org

Tender Document

For

Upgradation of Existing 15 kW Solar Electric Power Generation System to On-Grid 50
KW Capacity with Net-Metering (Supply, Installation & Commissioning)

Under

Sub-Component 1.5 of the PAS/PSDP Project

Date of Issuance : 25 June, 2024

Date of Submission : 12 July, 2024 at 1400 hrs



Email: admin@paspk.org

Web: <https://www.paspk.org/>

Tel. No.: 051-9215478

PAKISTAN ACADEMY OF SCIENCES
3-Constitution Avenue, Sector G-5/2, Islamabad



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1.0 SCOPE OF WORK

The objective of this consolidated bidding document is to procure/install the Solar Equipment under the head of Up-gradation of PAS Secretariat (Furniture/ Fixture) of PC-1. The procurement includes "Upgradation of Existing 15 kW Solar Electric Power Generation System to On-Grid 50 kW Capacity with Net-Metering (Supply, Installation & Commissioning)" for the PAS Secretariat Building, Islamabad. Under Sub-Component 1.5 of the PAS/PSDP Project.

2.0 GUIDELINES FOR THE PROJECT

Bidders are advised to bid for the following earmarked projects where broad details of BOQ (Bill of Quantity) are given along with generic specifications.

2.1 Upgradation of Existing 15 kW Solar Electric Power Generation System to On-Grid 50 kW Capacity with Net-Metering (Supply, Installation & Commissioning)

3.0 BIDS SUBMISSION REQUIREMENTS

The objective of the bid submission requirement is to provide bidders with the information to submit their bid in response to this Tender Document according to the specifications defined in this Tender Document and in order/sequence as outlined in this document. A Bidder who has responded to any previous Tender Document issued by the Pakistan Academy of Sciences (PAS) should not assume that the requirements are the same, as may have been in the past. Bidders (i.e., firms, not the individuals) must follow the following requirements and standards in the preparation and submission of their proposals/bid.

3.1 PPRA rule 36 (b) shall be adopted:

Single Stage Two Envelope bidding procedure: -

- (i) PPRA rule 36 (b) least cost method shall be adopted i.e. technically qualify but financially lowest.
- (ii) The Vendor is required to submit Technical Bid and Financial Bid in separate envelopes.
- (iii) Bids will include the prices quoted for each equipment as at (Annexure –B) in Pak Rupees
- (iv) The quoted prices must include all taxes, customs and freight charges for delivery and installation of equipment at the required location as mentioned in Annexure-A at their own risk and cost.
- (v) The Bidder shall furnish **Fixed Bid Security equal to Pak Rupees 0.135 Million** which should be accompanied with the Technical Proposal in the form of a Bank Draft/Pay Order issued by a scheduled bank of Pakistan in favour of "Pakistan Academy of Sciences (PAS), Islamabad", valid for at least one year. No Bid shall be entertained without bid security. Bid security will be part of the Technical Proposal. The Bid Security of the successful bidder will be released upon completion of the project.
- (vi) If the Bid is withdrawn before the expiry of its validity or the supplies/services are not made /provided within the due date, the Earnest money will be forfeited in favour of the Pakistan Academy of Sciences (Islamabad).
- (vii) The successful bidder will be required to deposit **Ten Percent (10%)** of the total contract value as **Performance Guarantee** in the form of a Bank Guarantee/Pay Order issued by a scheduled bank of Pakistan in favour of "Pakistan Academy of Sciences" at the time of signing of contract agreement/issuance of work/purchase order and will be released after one-year successful operation of the solar equipment.
- (viii) Proposals sent to the Pakistan Academy of Sciences (PAS) by fax or email will not be accepted.



- (ix) Bidders should provide complete technical details/copy of the brochure for the equipment required under the Tender Document.
- (x) Bidders should provide a Delivery & Work Execution Schedule with dates.
- (xi) Bidders are required to submit their proposals conforming to the specifications and terms & conditions provided in the Tender Document
- (xii) Failure to abide by any instructions of this Tender Document may, at the PAS's sole discretion, result in rejection of the Bidder's Proposal and disqualification.
- (xiii) PAS has no obligation to locate or acknowledge any information in the Vendor's Proposal that is not presented under the appropriate outline according to these instructions and at the proper location.
- (xiv) Bidder's Proposal/Bid/Offer must be received, physically at the office of Director Administration, Pakistan Academy of Sciences, 3-Constitution Avenue, Sector G-5/2, Islamabad, **as well as apply to PPRA-EPADS (e-Pak Acquisition and Disposal System)** by the date and time specified herein. PAS will not be responsible for any delays in delivery or expenses for the development or delivery of proposals. Any Proposal/Bid/Offer received after the Proposal/Bid/Offer submission date and time shall be rejected.
- (xv) Bidder must provide an electronic copy of the submitted bid along with all supporting documents after the relevant bid opening if asked.
- (xvi) Bidder must fully respond to each requirement within the technical specifications by fully describing the manner and degree by which the Bid meets or exceeds said requirement(s).
- (xvii) It is the responsibility of the Bidder to identify all costs associated with any item or series of items in this Tender Document. The Bidder must include and complete all parts of the Cost Proposal in a clear and accurate manner. Omissions, errors, misrepresentations, or inadequate details in the Bidder's cost proposal may be considered as valid ground for rejection of the Bidder's proposal. Costs that are not clearly identified will be borne by the Bidder. The Bidder must complete the respective "Cost Information Submission Form" Annexure B in this Tender Document, which outlines the minimum requirements for providing cost information. The Bidder should supply supporting details as described in Annexure B, "the Cost Information Submission Form".
- (xviii) Bidders are required to fill and sign page(s) of the Annexure B while following the format given, and submit it as Financial Proposal. Financial Proposals not following the given format may lead to the rejection of bid. Soft copy can be provided if required.



4.0 SELECTION PROCEDURE

- 4.1 The intent of PAS in issuing this Tender Document is to award a contract to the quality, lowest evaluated bid and best responsive Bidder who meets the required standard of specifications and other factors including the mandatory requirements as indicated in the document.
- 4.2 The bidder firm shall have to obtain the minimum technical qualification marks of 65 out of a total of 100 marks to qualify for inclusion in the next stage for opening financial bids (Annex-E). Financial bids of the firms, obtaining less than 65 the minimum qualification marks shall not be opened.

5.0 GENERAL TERMS AND CONDITIONS

The following General Terms and Conditions for this Tender Document are mandatory.

- 5.1 **Last date of receipt of Bids is 12 July, 2024 by 1400 hours and the proposals will be opened on the same day at 1500 hours. Bidders' conference/ pre-bid meeting may be held about a week before opening the tender.**
- 5.2. The bidder (i.e., firm, not the individual) should be registered with the Sales Tax and Income Tax Department.
- 5.3. An affidavit to the effect that the firm has not been blacklisted by any Government/Semi-Government Organization (Specimen of Affidavit Annexure-F).

- 5.4. The bidder/firm must be AEDB Registration, SECP Registration, Pakistan Engineering Council (PEC): C-5 Category with Code EE-11 (Solar Energy), and Pakistan Power & Infrastructure Board (PPIB): C-2 Category (up to 500kW Solar System).
- 5.5. Undertaking that the Company / Firm/by individual JV members is/are not blacklisted by Provincial or Federal Government Department, Agency, Organization or autonomous body anywhere in Pakistan. An affidavit on stamp paper shall be provided (Annex-C).
- 5.6. Valid evidence showing the Company / Firm/by individual JV members has/has never been litigated, will allow participating in the bidding process. An affidavit on stamp paper shall be provided.
- 5.7. Must provide details and evidence of 03 Nos. relevant experiences during the last three years for projects having a capacity of greater than 200kWp (each) (Annex-D).
- 5.8. Manufacturer's Authorizations for Solar Modules, and Inverters.
- 5.9. Warranty declarations.
- 5.10. The Secretary General, PAS reserves the right to accept/reject all bids.
- 5.11. On request of the bidders, PAS shall intimate the reasons for the rejection of bids but will incur no liability on this account nor is required to justify the rejection of bids.
- 5.12. An effort by a Bidder to influence PAS, directly or indirectly **THROUGH UNFAIR MEANS** in PAS's proposal evaluation, proposal comparison or contract award decision, to meet or discuss with any PAS official unless desired by the PAS may result in rejection of the Bidder's Proposal and blacklisting for any future tender of PAS.
- 5.13. All responses to this Tender Document shall become the property of PAS.
- 5.14. PAS will not bear any expense incurred in the preparation of the proposals in response to this Tender Document.
- 5.15. Prices quoted in the bid must be valid for 90 days. After the contract, the firm shall not have the right to change the price. All prices must be quoted in Pak Rupees and must clearly state all applicable taxes which must be included in the quoted price. The bid validity period will also be the same (90days).
- 5.16. In no case, the bidder shall offer an alternate brand for his quoted brand.
- 5.17. PAS will not allow any compensation to the Selected Bidder for any variations in the rate of exchange of rupee against the dollar or any other currency. No additional claim arising out of change in legislation, exchange rate variation or any sort of taxes will be entertained.
- 5.18. The Bidders must Bid for an integrated solution.
- 5.19. As per BOQ, Supply, Installation, configuration, testing and commissioning of all the mentioned equipment will be the responsibility of the firm/bidder.
- 5.20. Bidders must not type in or otherwise alter or re-key any of the original text of this Tender Document. If the PAS determines that the bidder has altered any language in the original Tender Document or amended/changed/deleted/substituted any terms and conditions of this Tender Document, the PAS in its sole discretion will disqualify the bidder from further consideration at any stage. The Tender Document issued by PAS is the official version and will supersede any conflicting Tender Document submitted by the bidder.
- 5.21. Bids are liable to be rejected if they are not conforming to the terms, conditions and specifications stipulated in this Tender document.
- 5.22. During the examination, evaluation and comparison of the bids, the PAS at its sole discretion may ask the bidder for clarifications of their bids. The Bidder's cooperation during the evaluation process in providing PAS staff with adequate responses to requests for clarification will be considered a factor in the evaluation of the Bidder's overall responsiveness. Lack of such co-operation may at the PAS's discretion, result in rejection of the Bidder's Proposal.
- 5.23. The amount submitted as Earnest Money shall be refunded to the unsuccessful bidders after decision of the "Tender Committee" for the award of said tender.
- 5.24. If there is a discrepancy between the unit price and the total price in the submitted bid which is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between the words and figures, the amount in words shall prevail. If there is a mistake in addition/ totalling, that shall be corrected.
- 5.25. The bid security is required to compensate PAS against the consequences of:
 - 5.25.1. Subsequent unauthorized variations and/or modifications of the terms of the bid.
 - 5.25.2. Premature withdrawal of the bid before completion of the bid evaluation.
 - 5.25.3. If the bidder does not accept the correction of his bid prices which is in the interest of the Commission.
 - 5.25.4. Failure of the bidder to sign the resultant Contract, in the event of such Contract being awarded to it.
 - 5.25.5. The occurrence of any of such events as solely judged by PAS, will entitle PAS to forfeit the bid security.



- 5.26. Incomplete and conditional bids will not be entertained.
- 5.27. For this tender, all updates/changes shall be communicated through email.
- 5.28. In case of any dispute between the two parties regarding any matter arising after signing the contract agreement, the case shall be referred to the Secretary-General, PAS whose decision shall be final and binding on both parties.
- 5.29. The Bidder indemnify PAS against all third-party claims of infringement of patent, trademark industrial design rights arising from the use of the goods or any part thereof in Pakistan.
- 5.30. PAS or its representative shall have the right to inspect and/or test the equipment to confirm their conformity to the contract specifications. The Technical Specifications shall specify what inspections and tests PAS requires and where they are to be conducted. PAS shall notify the contractor, in writing, of the identity of any representatives entrusted for this purpose.
- 5.31. Only transactions, amendments, changes and/or variations in this Tender Document that are in writing from PAS and duly agreed upon by PAS shall be considered official. No negotiations, decisions, or actions executed by the Vendor as a result of any discussions with any PAS employee shall be considered official.
- 5.32. In case of delay, the Secretary-General, PAS reserves the right to impose a penalty @ 1% of the contract amount on daily basis for the total number of days delayed. However, the penalty should not exceed 10% of the contract amount.
- 5.33. If the work is not executed according to the satisfaction of the PAS, the Secretary-General, PAS reserves the right to reject it altogether or impose a penalty not exceeding 10% of the total amount of the contract.
- 5.34. If the work is not to the satisfaction of the Secretary-General, PAS, the Secretary-General, PAS has the right to cancel the order, and get work done by some other firm at the risk and cost of the vendor, subject to the condition that if the PAS has to pay any amount in excess of the agreed amount, the difference will be recovered from the vendor.
- 5.35. The bidders are required to submit an Integrity Pact on a Stamp Paper of Rs. 100/- attested by Notary Public as per sample attached to Annexure-G in case, the Bid amount is equal to or exceeds 10 Million Rupees.
- 5.36. Refurbished and end-of-life/sale equipment shall not be acceptable.
- 5.37. The items delivered shall be according to the items mentioned in the Bid and no bidder shall be allowed to change brand name or quality of items without the official approval of the Secretary General, PAS.
- 5.38. Duly stamped Tender Documents which contain detailed specifications should be obtained from the website of Pakistan Academy of Sciences/PPRA by depositing **Rs. 1000/-** (non-refundable) in the PAS Bank Account No. **"PK25NBPA1539004004629269 of National Bank of Pakistan, PARC Branch, Islamabad"** as Tender Document Fee. No Bid for tender will be accepted without evidence of payment of tender fee and earnest money.
- 5.39. A bidder must submit a bid for this tender to PPRA-EPADS (e-Pak Acquisition and Disposal Systems) as well as submit the physical bid on or before the submission **Deadline, i.e., Thursday, July 12, 2024 in sealed envelopes at 1400 hours**. Technical bids will be **opened at 1500 hours** on the same day at the Auditorium, Pakistan Academy of Sciences (PAS), Islamabad in the presence of bidders' representatives who choose to attend at the same address. No bid for the entire proposal/package will be accepted without evidence of Submission of Tender Fee and Earnest Money. Bids for the entire proposal/package will be rejected if not received in Physical Form at the Academy (PAS) as well as on **PPRA-EPADS system** before the submission deadline.

6.0 HARDWARE AND SERVICE REQUIREMENTS

Following are the minimum hardware and service requirements which the Selected Bidder/vendor will be required to fulfil.

- 6.1. Delivery and Installation should be at Campuses of deployment at the risk and cost of the successful bidder.
- 6.2. Vendor must install all equipment and components and must ensure that the proposed equipment is fully operational and functions properly at all variables.
- 6.3. Vendor must provide adequate protection to install equipment against electrical surges and related issues.
- 6.4. Vendor must ensure that all systems are in first-class working condition and free of short circuits, and ground loops. In addition, the new equipment has to be integrated by the vendor with the already installed equipment/system.
- 6.5. At the time of installation, the Vendor must provide owner's manuals, manufacturer's data sheets, and a complete equipment list.
- 6.6. At the time of installation, the Vendor must provide comprehensive system schematics, and labelling and show detailed connections to all equipment.



- 6.7. Vendor shall provide on-call support (5 days a week) including assistance with operation and maintenance of the system at respective location(s) all free of cost for a minimum period of **two years** from the date of the first successful start/functioning/operation of the equipment and subsequent issuance of site acceptance. If a piece of equipment has to be taken out from the PAS in warranty for repair, the vendor has to provide a replacement (free of cost) for the time being to avoid interruption in routine/online activity.
- 6.8. A site survey may be required at no cost to PAS to determine specific project efficacy at any location. Any components needed during installation resulting from failure to perform a site survey must be provided at the Vendor's expense.

7.0 WARRANTY

The following Warranty clauses apply to the equipment under this tender,

- 7.1. The successful Bidders shall warrant the equipment and its components to be free from any sort of defects in material and workmanship for (a) a minimum warranty given by the manufacturer for the solar panels and the inverter as specified in BOQ; and (b) a minimum period of **Two years** for the remaining non-consumable supplies from date of completed installation, testing and commissioning shall repair or replacement on a timely basis any defective component, assembly or portion **free of cost**. Technical support should be available on a call basis. Every call will be attended by competent staff of the Bidder within 3-4 hours of its notification either by phone or email or in writing during business hours (9 am – 5 pm). A delay in attending the call and delay in rectification of the fault will lead to consequential financial damages to the Vendor/Bidder.
- 7.2. The Successful Bidder will warrant that the equipment supplied under the Work Order/Purchase Order are new, un-used, and incorporate all recent improvements in design and materials and which should be of good quality as per acceptable standards. Quoted equipment should meet all design, quality and other technical requirements listed in this document or explicitly mentioned somewhere else in other such projects.

8.0 PROJECT IMPLEMENTATION PLAN

The Bidder should provide a detailed Project Implementation Plan as part of the Technical Proposal. This will be the basis for ensuring that the Project Implementation is regulated under defined timelines. This will also form the basis for the PAS to claim Liquidated Damages, for inclusion in the Contract, relating to delays, besides supplies and services not conforming to specifications, and/or other Contract commitments.

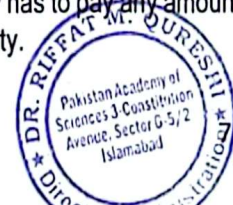
9.0 MEET OR EXCEED SPECIFICATIONS

For all categories/lots, the specifications provided in this Tender Document are the minimum requirements of PAS. Bidders are advised to meet or exceed these specifications to meet the actual requirements of this Project and its successful practical implementation. But in such cases, additionally, proposed or altered specifications should be clearly highlighted to enable PAS to clearly identify the modified specifications.

10.0 TERMS OF PAYMENT

- 10.1. No payment shall be made in advance to the Contractor as mobilization advance.
- 10.2. Fifty percent (50%) cost of equipment shall be paid and will be released after the successful delivery of equipment and after approval of the committee that the items meet the proposed specification at sites as given in Annexure-A.
- 10.3. Thirty percent (30%) cost of equipment shall be payable to the Contractor upon successful installation, integration, testing & commissioning of equipment as elaborated in the Scope of Work specifically and in Tender document generally.
- 10.4. Twenty percent (20%) cost of equipment shall be payable to the Contractor upon the Performance Assessment Test (PAT) and Final Acceptance Test (FAT) of project deployment which will be conducted no less than two (02) months subsequent to the commissioning of all the equipment.
- 10.5. All payments will be made through cross cheque in the Pak Rupees. Taxes will be deducted at source as per government rules at the time of payment.
- 10.6. If the progress of the work is not to the satisfaction of the PAS Technical Committee, the Committee has the right to cancel the order with appropriate approvals, get the work done from a third party selected in accordance with the PPRA rules subject to the condition that if the first party has to pay any amount in excess of the agreed amount, the difference will be recovered from the second party.

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10.0 CLARIFICATION AND AMENDMENT IN TENDER DOCUMENT

A bidder requiring any clarification of the Tender Document may contact at the following address in writing or via email.

<p>Dr. Riffat M. Qureshi Director Administration, Pakistan Academy of Sciences 3-Constitution Avenue, Sector G-5/2, <u>Islamabad</u> Phone: +92 051 9215478 Email: admin@paspk.org</p>	<p>Muhammad Naseer Manager IT, Pakistan Academy of Sciences 3-Constitution Avenue, Sector G-5/2, <u>Islamabad</u> Phone: +92 051 9206770 Email: m.naseer@paspk.org</p>
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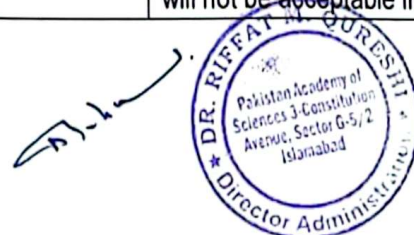


BOQ and Technical Specifications

Note: Please refer to Annexure A for BOQ, Technical details of this tender

On-Grid Solar Smart Inverter (60 KW)

Parameters	Min. Specifications Required	QTY
Inverter Manufacturer	Renowned and verifiable brand having a successful history in similar climatic conditions.	1
Inverter type	Smart String Inverter	
Max. Efficiency/European Efficiency	≥ 98% or above	
Max. Input Voltage	1,100 V (or as per supported design)	
MPPT input current	22 A (or as per supported design)	
MPPT Operating Voltage Range	200–1000 V (or as per supported design)	
Maximum short-circuit current (per MPPT)	30 A (or as per supported design)	
Minimum startup voltage	200 V (or as per supported design)	
Power factor	0.8 leading ... 0.8 lagging	
Maximum total harmonic distortion (rated power)	< 3% as per relevant IEC clauses	
Output voltage range	220V/380V, 230V/400V, 240V/415V, 3W+(N ^b)+PE	
IP protection	IP 65 or better	
Protections	Input-side Disconnection Device Anti-islanding Protection AC Overcurrent Protection DC Reverse-polarity Protection PV-array String Fault Monitoring DC Surge Arrester AC Surge Arrester DC Insulation Resistance Detection Residual Current Monitoring Unit	
Operating Temperature Range	-25°C ~ 60°C (-13°F ~ 140°F)	
Communication	Display: LED, Bluetooth module+app, USB data cable+app Real-time system monitoring. Alerts faults and warning data display. System Statistics -System parameters Support MBUS/RS485/RS485	
Minimum Applicable Standards and Compliances	EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 62910, IEC 60068, IEC 61683	
Annual Failure rate	Less than 1%	
Warranty	5-year standard replacement warranty (repairment will not be acceptable in case of major fault)	



Solar PV Panel

Parameters	Min. Specifications Required	QTY
Module Make	Brand should be verifiable for the procurement year	60
PV Module Capacity	590 Watts or above	
PV Module Type	HJT Mono (Only)	
Cell Quality	A Grade (verifiable)	
Module Efficiency	22% or higher	
Power Tolerance	Must be + 3% or more	
Operating cell Temperature	minus 40C to positive 85C	
Temperature coefficient	Minus 40 %/ C or less	
Frame	Anodized Aluminium Alloy	
Certification	IEC 61215, IEC 61730, IEC 61439, IEC 60947-3, PID FREE	
Junction box	IP 68 or better	
Cable	4mm ² (IEC), 300mm or higher	
Connectors	MC4 or comparable weatherproof	
Cover Glass	Double Glass, Minimum 2 mm	
Product Warranty and Guarantee	15 years product replacement warranty power output within 15 years shall not fall below 90% Power output within 25 years shall not fall below 85%	

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Other Related Items

Items	Description	Qty
Aluminium L-3 Type Structure	Aluminium 2.3mm or Guage 12 With Stainless Steel Nut/Bolt/Rawal Bolt	20
Electrical Protection Equipment	DC Breakers, SPDs, Fuses, AC SPDs, AC Breakers, Disconnect Switches, LV Panels etc.	As required
DC & AC Cables	6mm ² PVC XLPO Flexible Cable for DC 95mm ² from Inverter to DB 200mm ² from meter to disconnect Make: <i>FAST Cables/Pakistan Cables or equivalent</i>	As required
Earthing Equipment	16mm ² Bare Copper Conductor Copper Plates/Rods Lightening Arrestor & Insulator for Structure Earthing Powder Bags Earthing Bore/Trench for Earthing	As required
Miscellaneous Items	Pipes, Ducts & Cable Trays for Cables, Thimbles, MC4 Connectors, Cable Ties etc.	As required
Installation & Commissioning	<i>Mechanical Installation, Electrical Installation</i>	-
Transportation of Material to the Site	<i>Standard</i>	-
Net-Metering	File Application/Processing NEPRA Processing Meter Cost Successful activation of Net Metering	-
Integration of existing 15KW system	Connection of existing panels (JA 380w) of 15KW solar system must be integrated with newly installed panels	1 job

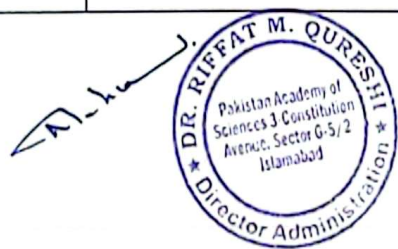
11.0 Annexure-A: Technical Bid Form

Technical Proposal shall be part of Technical Proposal only (data should be provided in softcopy)

Technical Bid Form

[To be signed & stamped by the Bidder and reproduced on the letterhead. To be attached with Technical Bid]

Sr.#	Item Name	Brand Name with Country of Manufacturer	Make & Model	Quantity	Country of Origin	Specifications Dimensions



Stamp & Signature of Bidder _____

Financial Proposal shall be part of Financial Proposal only (Price of each Module should be provided)

Financial Bid Form/Price Schedule

[To be signed & stamped by the Bidder and reproduced on the letter head. To be attached with Financial Bid]

Name of Project: _____

Item No.	Project Description	Total Cost of Solar Equipment PKR	Total Cost of Services (Excluding O & M) PKR	Total Cost of O&M (02 Years) PKR	Total Cost of the Project PKR

(Note: Total Price in Pak Rupees shall be provided in Figures as well as in Words, Prices should be included with all applicable Government taxes)

NOTE: Lump Sum (Summary of Bid Prices) and Item Wise (BOQ of the System / Schedule of Prices (BOQ)) rate must be submitted in the Financial Proposal. The Bid not accompanied with the Item wise rates shall be rejected and declared non-responsive. The name of the Project should be clearly mentioned in bold letters over the sealed envelope of the Financial Proposal.

DR. RIFFAT M. QURESHI
Pakistan Academy of Sciences J Constitution Avenue, Sector G-5/2 Islamabad
Director Administration

Financial Bill of Quantity (BOQ) / Item Wise BOQ

SCHEDULE OF PRICES – ITEM-WISE BID PRICES

ITEM-WISE COSTS BREAKDOWN

Sr. No.	ITEM(s)	Description	QTY	Unit Cost	Total Cost (Excluding Taxes)	Total Cost (including Taxes)

(Handwritten signature)



13.0 Annexure - C: Overall Compliance Undertaking

(To be attached with Technical Proposal)

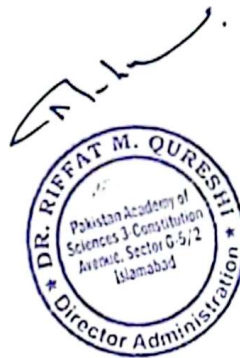
I, (Name): _____ (CNIC #): _____ (Designation): _____
_____ (Company Name): _____ have gone through the Terms/Conditions of this TENDER DOCUMENT and have found the document in whole as non-biased to any particular vendor or product/brand. I hereby undertake and firmly bound myself to abide by/comply all sections of this Tender Document except for those items noted below.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Signature

Official Stamp

Date:

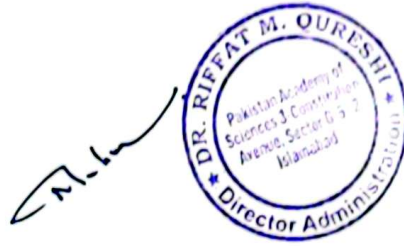


14.0 Annexure - D: Firm's References

(To be attached with Technical Proposal)

Details of Relevant Services Carried Out in the Last Two Years That Best Illustrate Qualifications



List of Project(s) completed with a copy of completion certificate(s).



15.0 Annexure – E: Technical Evaluation Criteria

The weight of the Technical Scoring is 100% and the Breakup is given below.

S. #	Parameters	Type	Marks	Details
	MAF/MAL/OEM must be provided	Yes/ No	10	Manufacturer's Authorization Form / Manufacturer's Authorization Letter / Original Equipment Manufacturer must be provided
	Vendor's presence for Technical Support Services	Details	10	Head office in Islamabad/ Rawalpindi = 10 Branch Office in Islamabad/ Rawalpindi with technical team plus Head office in Pakistan = 05
	Vendor's active presence in Solar business in Pakistan	Details	10	Company Established (no of years) 10 = 5 to 10 years 05 = 2 to 5 years 03 = Less than 2 years
	Hardware delivery Period	Yes/ No	15	05 = 8 Weeks 10 = 6 Weeks 15 = 4 Weeks
	Firm's relation with Principal – Partnership Level and the duration	Details	10	Partnership: For Level 3 partner: 10 marks For Level 2 partner: 05 marks For Level 1 partner 03 marks [Provide the letter]
	Projects in Relevant Domains within the past 05 years in Pakistan	Details	15	Projects: 03 Marks per Completion Certificate, (within the past 05 years) [Provide a photocopy of documents (Purchase/Work Order/Contract) for the award of points]
	Filled Technical Compliance Sheet Attached with reference Page Number	Details	15	Please fulfil the requirement
	Project Execution Graph/Chart	Details	9	04 Weeks = 09 06 Weeks = 06 08 Weeks = 04 10 Weeks = 02
	Past Experience with PAS	Details	6	Those firms who have already worked with PAS but created hurdles in project execution due to incompetence, remained unable to achieve the milestones or failed to provide after-deployment support etc shall not be awarded any marks.
Total marks			100	
Minimum Technical Qualification Marks			65	

[To be printed on PKR 100 Stamp Paper, duly attested by Oath Commissioner. To be attached with Technical Bid]

From:

To,

Pakistan Academy of Sciences (PAS),
Sector G-5/2, Constitution Avenue,
Islamabad

Subject: **Affidavit**

Name: _____ (Applicant)

I, the undersigned, do hereby certify that all the statements made in the Bidding document and in the supporting documents are true, correct and valid to the best of my knowledge and belief and may be verified by employer if the Employer, at any time, deems it necessary. The undersigned hereby authorize and request the bank, person, company or corporation to furnish any additional information requested by the [name of Procuring Agency] deemed necessary to verify this statement regarding my (our) competence and general reputation. The undersigned understands and agrees that further qualifying information may be requested and agrees to furnish any such information at the request of the [name of Procuring Agency]. The undersigned further affirms on behalf of the firm that:

- (i) The firm is not currently blacklisted by the Procuring Agency.
- (ii) The documents/photocopies provided with Bid are authentic. In case, any fake/bogus document was found at any stage, the firm shall be blacklisted as per Law/ Rules.
- (iii) Affidavit for correctness of information.
- (iv) *****omitted*****

[Name of the Contractor/ Bidder/ Supplier] undertakes to treat all information provided as confidential.

Signed by an authorized Officer of the company.

Title of Officer: _____

Name of Company: _____

Date: _____



INTEGRITY PACT FOR "Upgradation of Existing 15 kW Solar Electric Power Generation System to On-Grid 50 kW Capacity with Net-Metering (Supply, Installation & Commissioning)" for the PAS Secretariat Building, Islamabad under Sub-Component 1.5 of the PAS/PSDP Project for the PAS Secretariat Building, Islamabad.

Note: To be provided at the time of contract agreement or Work Order.

Tender Number: _____ Dated: _____

Tender Value: _____

Tender Title: _____

{Name of Suppliers hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative sub-division or agency thereof or any other entity owned or controlled by (GOP) through any corrupt business practice.


Without limiting the generality of the foregoing {Name of Suppliers}represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to anyone within or outside Pakistan either associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise , with the object of obtaining or including the procurement of a contract, right, interest, privilege, or other obligation or benefit in whatsoever form from GOP, except that which is been expressly declared pursuant hereto.

{Name of Suppliers certified that it has made and will make full disclosure of all agreements and arrangement with all persons in respect of or related to the transaction with GOP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

{Name of Suppliers accepts 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, 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 void able at the option of GOP.

Notwithstanding any right and remedies exercised by GOP in this regard, {Name of Suppliers}agrees to indemnify GOP for any loss or damage incurred by it on account of its corrupt business practices, and further pay compensation to GOP in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by {Name of Suppliers}as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right interest privilege or other obligation or benefit in whatsoever form GOP.

Stamp & Signatures

18.0 Annexure - H: Proposal Submission Form

Note: To be provided at the time of technical proposal

PROPOSAL SUBMISSION FORM

Secretary-General,
Pakistan Academy of Sciences
3-Constitution Avenue, Sector G-5/2
Islamabad

Sir

We, the undersigned, offer to provide consulting services for the **Upgradation of the Existing 15 kW Solar Electric Power Generation System to On-Grid 50 kW Capacity with Net-Metering (Supply, Installation & Commissioning)" for the PAS Secretariat Building, Islamabad** following your Tender Document dated _____, and our Proposal. We are hereby submitting our Proposal, which includes this technical proposal, and a financial proposal sealed under separate envelopes.

We understand you are not bound to accept any Proposal you receive and reserve the right to accept or reject any offer and to annul the bidding process and reject all proposals without assigning any reason or having to owe any explanation whatsoever.

The decision of the evaluating committee shall be final and cannot be challenged on any ground at any forum and the evaluating committee will not be liable for any loss or damage to any party acting in reliance thereon.

We remain,


Yours sincerely

Authorized Signature:

Name and Title of Signatory: _____

Name of Firm: _____

Address: _____




Contract Form

[To be signed & stamped by the Bidder and reproduced on the letterhead. To be attached with Technical Bid]

THIS AGREEMENT is made on the ____ day of _____ 20____ between [name of Procuring Agency] of [country of Procuring Agency] (hereinafter called "the Procuring Agency") on the one part and [name of Supplier] of [city and country of Supplier] (hereinafter called "the Supplier") on the other part:

WHEREAS the Procuring Agency invited Bids for certain goods and ancillary services, viz., [brief description of goods and services] and has accepted a Bid by the Supplier for the supply of those goods and services in the sum of [contract price in words and figures] (hereinafter called "the Contract Price").

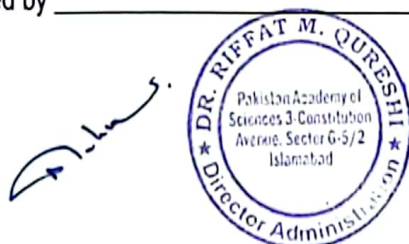
NOW THIS AGREEMENT WITNESSES AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:
 - (a) the Bid Form and the Price Schedule submitted by the Bidder
 - (b) the Schedule of Requirements
 - (c) the Technical Specifications
 - (d) the General Conditions of Contract
 - (e) the Special Conditions of Contract; and
 - (f) the Procuring Agency's Notification of Award.
 - (g) Contract Agreement
 - (h) Complete Bidding document
3. In consideration of the payments to be made by the Procuring Agency to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Procuring Agency to provide the goods and services and to rectify defects therein in conformity with all respects in accordance with the provisions of the Contract.
4. The Procuring Agency hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the rectification of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year mentioned above.

Signed, sealed, delivered by _____ the _____ (for the Procuring Agency)

Signed, sealed, delivered by _____ the _____ (for the Supplier)



Satellite view of the Pakistan Academy of Sciences



[Handwritten signature]

DR. RIFFAT M. QURESHI
Pakistan Academy of Sciences 3-Constitution Avenue, Sector G-5/2 Islamabad
Director Administration



ISLAMABAD ELECTRIC SUPPLY COMPANY ELECTRICITY CONSUMER BILL - (MDI)

www.iesco.com.pk

IESCO GST # 26-00-2716-001-91

Table with consumer details, meter readings, and payment information. Includes fields for CONN. DATE, MNFG. CD, NO OF AC, ED#, BILL MONTH, READING DATE, ISSUE DATE, DUE DATE, CONSUMER ID, TARRIF, SANC. LOAD, OLD A/C NUMBER, FEEDER NAME, R-4 (P.T.V.), MONTH, MDI, KWH UNITS, BILL, PAYMENT, REFERENCE NO, DIVISION, ISLAMABAD-I, SUB DIVISION, F-6 SECTOR, NAME & ADDRESS, PAKISTAN ACADEMY OF SCIENCES, CNCT LOAD = 65, MCO Date: 29-Oct-2015, PAY your bill through 1Link-1Bill by using code 111444 before Electricity bill reference number, PRV.CUMM MDI, PRS.CUMM MDI, RESET NO, MONTHLY ADV.BILL, POWER FACT, Fuel Price Adjustment for Apr-24 @ 3.3321/KWH, FT. FPA = .00 ET. FPA = .00, VAR. FPA = 7064.05 GST FPA = 1272.00, ED. FPA = .00 IT FPA = .00, STAX. FPA = .00, Total FPA 8336, WATTAGE: LINE LENGTH:

Table with meter readings: KWH, KWH METER READING, KVARH METER READING, MDI METER READING, METER STATUS. Includes columns for METER NO, PREVIOUS, PRESENT, MF, and values for meters 202807 and 202807.

UNITS CONSUMED (O) 9380 (P) 960 (O) 0 (P) 0 (O) 33 (P) 33

Table with charges and calculations: IESCO CHARGES, GOVT CHARGES, ARREAR, CURRENT BILL, BILL ADJUSTMENT, INSTALLEMENT, TOTAL FPA, PAYABLE WITHIN DUE DATE, L.P.SURCHARGE, PAYABLE AFTER DUE DATE, BILL CALCULATION, GOP, Tariff X Units, FC SURCHARE, TR SURCHARGE, TAXES ON FPA, TOTAL, GST ADJ, DEFERRED AMOUNT, OUTSTANDING INST. AMOUNT.



CUT HERE



ISLAMABAD ELECTRIC SUPPLY COMPANY - ELECTRICITY CONSUMER BILL (MDI)

Table with CONSUMER ID 2140038015 and BILL NO 5729168.

www.iesco.com.pk

Table with MOB # and CNIC fields.



JUN 24 - 28 14112 0177105 - 000535486-27 JUN 24 - 6

Table with BILL MONTH, DUE DATE, REFERENCE NO, PAYABLE WITHIN DUE DATE, PAYABLE AFTER DUE DATE, and values for JUN 24, 27 JUN 24, 28 14112 0177105 U, 535486, 580160.

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