

BIDDING DOCUMENTS

FOR

**REPLACEMENT OF TECHNOLOGY (FROM MF TO RO) AT 15 NO.
WATER FILTRATION PLANTS IN MULTAN, BAHAWALPUR & DG KHAN
DIVISION**



February 2026

PUNJAB SAAF PANI AUTHORITY

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**INVITATION
FOR
BIDS**

INVITATION FOR BIDS

Punjab Saaf Pani Authority (PSPA) (hereinafter referred to as the “client”), invites E-Bids (by uploading PDF File) from Contractors / Firms / Manufacturer / Authorized dealers registered with the registration system available on the e-PADS having valid License from **PEC** in category **C-5 or above** with relevant code **CE – 09 / 10, ME – 06 & EE – 11**, registered with **FBR & PRA (NTN and PNTN)** for E-Procurement on “e-Pak Acquisition and Disposal system (e-PADS)”. All e-bids must be submitted through e-PADS concerning **“Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division”**.

2. The intending bidder(s) shall download the bidding documents from the E-PADS / website of the Authority and participate in the procurement process without paying any cost or fee. The Uniform Resource Locator (URL) of the website of the Authority and E-PADS are as follows:

<https://eproc.punjab.gov.pk>

<https://punjab.eprocure.gov.pk>

The response time shall be calculated exclusively from the date of publication of advertisement on the website of the Authority.

3. All E-bids must be accompanied by a Bid-Security in the shape of CDR / Bank Guarantee from any Scheduled Bank in Pakistan in favour of Chief Engineer / D.G. (O&M), PSPA for amounting to **Rs. 1,056,622/-**.

4. Original Bid Security instrument (2% of the estimated cost), as mentioned above, must be submitted in an envelope clearly marked with the Tender Title, before the E-bid Submission deadline at the Office of **Chief Engineer / D.G. (O&M)** situated at 4th Floor, EFU House, Main Gulberg, Jail Road, Lahore.

5. **The bidders shall complete and authenticate their complete E-bids (by uploading PDF File) and it must be submitted online on e-Procurement System (EPADS) website i.e. <https://punjab.eprocure.gov.pk> as per the following schedule:**

E-Bids Submission Date & Time	09 th March, 2026 at 12:00 PM
E-Bids Opening Date & Time	09 th March, 2026 at 12:30 PM

6. In case e-bid or proposal including record submitted on the e-PADS found corrupt, un-readable or contain virus, the e-bid or proposal shall be rejected.

7. **Single stage two envelopes** bidding procedure will be adopted. Submission of encrypted electronic file shall be deemed submission in “envelope” as mentioned in the rules.

8. Only technically responsive bidder(s) will be qualified for opening of financial bid(s). Financial bid(s) of bidder(s) found technically nonresponsive shall remain unopened in the e-PADS.

9. The procuring Authority may reject all bids or proposals at any time prior to the acceptance of a bid or proposal under Punjab PP Rules 2014 (**Rule-35**).

10. Conditional tender will not be accepted.

11. Tendered rates and amount should be filled in figures as well as in words.

12. In case, the last date of bid submission falls in / within the official holiday(s), the last date for submission of the bids shall be the next working day.

13. The bids will be valid for 120 days.

14. Estimated cost is Rs. **52,831,079/-** (Technical Sanction issued vide no. PSPA/DIR (P&QC)/SZ/666-69 dated 02.02.2026).

15. Bidders are advised to ensure uploading the Bids on E-PADS Portal, well before the submission deadline, and not wait for the last date and time to upload the bid. Bid submission on E-PADS Portal shall entirely be the responsibility of the bidder. Punjab Saaf Pani Authority shall not be held responsible for any issue thereof. For any assistance regarding E-PADS Portal, system support email and phone numbers are provided hereunder:

E-PADS Helpline: 051-111-137-237

**Chief Engineer / D.G. (O&M)
Punjab Saaf Pani Authority**

INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

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

A. GENERAL

IB.1 Scope of Bid

- 1.1 The Employer as defined in the Bid data sheet hereinafter called “the Employer” wishes to receive e-bids (by uploading PDF File) for the construction / rehabilitation and completion of works and remedying any defects therein as described in these Bidding Documents, and summarized in the Bid data sheet hereinafter referred to as the “Works”.
- 1.2 The successful bidder will be expected to complete the Works within the time specified in Appendix-A to Bid.

IB.2 Source of Funds

- 2.1 The Employer has received funds from the source (s) indicated in the Bid data sheet in Pak Rupees towards the cost of the project specified in the Bid data sheet and it is intended that the proceeds of these funds will be applied to eligible payments under the Contract for which these Bidding Documents are issued.

IB.3 Eligible Bidders

- 3.1 This Invitation for Bids is open to all bidders meeting the requirements mentioned in the Appendix – N of the Bidding Documents. Furthermore, a Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be non-responsive. A Bidder may be considered to have a conflict of interest with one or more parties in this Bidding process, if they:
 - i. are associated or have been associated, directly or indirectly with a firm or any of its affiliates which have been engaged by the Procuring Agency to provide consulting services for the preparation of the design and other documents to be used.
 - ii. have controlling shareholders in common; or
 - iii. receive or have received any direct or indirect subsidy from any of them; or
 - iv. have the same legal representative for purposes of this Bid; or
 - v. have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid

of another Bidder, or influence the decisions of the Procuring Agency regarding this Bidding process;

IB.4 One Bid per Bidder

- 4.1 Each bidder shall submit only one bid either by himself, or as a partner in a joint venture. A bidder who participates in more than one bid (other than alternatives pursuant to Clause IB.16) will be disqualified.

IB.5 Cost of Bidding

- 5.1 The bidders shall bear all costs associated with the preparation and submission of their respective bids and the Employer will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

IB.6 Site Visit

- 6.1 The bidders are advised to visit and examine the Site of Works and its surroundings and obtain for themselves on their own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction / rehabilitation of the Works. All cost in this respect shall be at the bidder's own expense.
- 6.2 The bidders and any of their personnel or agents will be granted permission by the Employer to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the bidders, their personnel and agents, will release and indemnify the Employer, his personnel and agents from and against all liability in respect thereof and will be responsible for death or personal injury, loss of or damage to property and any other loss, damage, costs and expenses incurred as a result of such inspection.

B. BIDDING DOCUMENTS

IB.7 Contents of Bidding Documents

- 7.1 The Bidding Documents, in addition to invitation for bids, are those stated below and should be read in conjunction with any Addenda issued in accordance with Clause IB.9.
1. Instructions to Bidders.
 2. Bid data sheet.
 3. General Conditions of Contract (GCC).
 4. Forms of Bid & Appendices to Bid, including a Certificate that the bidder is not blacklisted by PPRA or Punjab Saaf Pani Authority.
 5. Bill of Quantities (Appendix-D to Bid).
 6. Form of Bid Security.

- 7. Form of Contract Agreement.
- 8. Forms of Performance Guarantee, Mobilization Advance, Bank Guarantee and Secured Advance.
- 7.2 The bidders are expected to examine carefully the contents of all the above documents. Failure to comply with the requirements of bid submission will be at the Bidder's own risk. Pursuant to Clause IB.26, bids which are not substantially responsive to the requirements of the Bidding Documents will be rejected.

IB.8 Clarification of Bidding Documents

- 8.1 The e-PADS contains a mechanism for clarifications. A prospective Bidder requiring any clarification of the Bidding documents may notify the Procuring Agency on e-PADS. The Procuring Agency will respond on e-PADS to any request for clarification of the Bidding documents which it receives no later than seven (7) days prior to the deadline for the submission of e-Bids prescribed in the Bid Data Sheet.
- 8.2 The Procuring Agency will within three (3) working days after receiving the request for clarification, respond on e-PADS to any request for clarification provided that such request is received not later than seven (7) days prior to the deadline for the submission of Bids.

IB.9 Amendment of Bidding Documents

- 9.1 At any time prior to the deadline for submission of Bids, but not later than three (3) days before the closing time of the submission of Bid, the Procuring Agency, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, may modify the Bidding documents by amendment. Any such change/amendment in the Bidding documents shall be provided in a timely manner on e-PADS, not later than three (3) days, and on equal opportunity basis as per Rule-25(3) of PPR-14.
- 9.2 All prospective Bidders that intend to participate in Bidding process will be notified of the amendment on e-PADS, and the amendments will be binding on them.
- 9.3 Any addendum issued including the notice of any extension of the deadline shall be part of the Bidding Documents and shall be uploaded on e-PADS.
- 9.4 In order to allow prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Procuring Agency, at its discretion, may extend the deadline for the submission of Bids, as per rule 29 of PPR-14, in the manner similar to the original advertisements, so as to avoid any inconvenience and to doubly ensure level playing field for all prospective bidders.

C. PREPARATION OF BIDS

IB.10 Language of Bid

- 10.1 The bid and all correspondence and documents related to the bid exchanged by a bidder and the Employer shall be in the bid language stipulated in the Bid data sheet and Conditions of Contract. Supporting documents and printed literature furnished by the bidders may be in any other language provided the same are accompanied by an accurate translation of the relevant parts in the bid language, in which case, for purposes of evaluation of the bid, the translation in bid language shall prevail.

IB.11 Documents Comprising the Bid

- 11.1 Submission of encrypted electronic file shall be deemed submission in “envelope” or “package” as mentioned in the rules.
- 11.2 Electronic signatures, individual identification, and encryptions generated by the approved system shall suffice to meet the requirement of the rules with respect to the signing and sealing of the documents.
- 11.3 In case of Single Stage Two Envelope Procedure, The Bid shall comprise two encrypted electronic files submitted simultaneously via uploading on the e-PADS, one called the Technical Proposal and the other Financial Proposal. Each bidder shall furnish all the documents as specified in Bid data sheet 11.1 A & B.
- 11.4 Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all partners. Alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed agreement. The role to be played by each partner to be specified therein; and, the concerned partner should have the requisite qualification/ experience to successfully execute the assigned task. Bids submitted by a joint venture of two (2) or more firms shall also comply with the following requirements:
- (a) In case of a successful bid, the Form of JV Agreement shall be signed so as to be legally binding on all partners within 7 days of the receipt of letter of acceptance failing which the contract and the letter of acceptance shall stand void and redundant.
 - (b) One of the joint venture partners shall be nominated as being in charge/ lead partner; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the joint venture partners;
 - (c) The partner-in-charge/ lead partner shall always be duly authorized to deal with the Employer regarding all matters related with and/or incidental to the execution of Works as per the terms and Conditions of JV Agreement and in this regard to incur any and all liabilities, receive instructions, give binding undertakings and receive payments on behalf of the joint venture;
 - (d) All partners of the joint venture shall at all times and under all circumstances be liable jointly and severally for the execution of the Contract in accordance with the Contract terms; and, a statement to this effect shall be included in the authorization mentioned under Sub-Para (b) above as well as in the Form of Bid and in the Form of JV Agreement (in case of a successful bid); and

- (e) A copy of JV agreement shall be submitted before signing of the Contract, stating the conditions under which JV will function, its period of duration, the persons authorized to represent and obligate it and which persons will be directly responsible for due performance of the Contract and can give valid receipts on behalf of the joint venture, the proportionate participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. The JV Agreement shall be made part of the contract. No amendments / modifications whatsoever in the joint venture agreement shall be agreed to between the joint venture partners without prior written consent of the Employer.
- 11.3 The Bidder shall furnish, as part of the Technical Bid, a Technical Proposal including a statement of work methods, equipment, personnel, schedule, qualification/ experience required to successfully execute the individually assigned tasks and any other information as stipulated in Bidding Forms, in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.

IB.12 Bid Prices

- 12.1 Unless stated otherwise in the Bidding Documents, the Contract shall be for the whole of the Works as described in IB 1.1 hereof, based on the unit rates and / or prices submitted by the bidder.
- 12.2 The bidders shall quote their rates against each entry / item of DNIT / BOQs (instead of percentage) and completely fill the pages of rate analysis / summary / sub-summary, as required in the financial bid. All incomplete financial bids (i.e., blank DNIT / BOQs and blank entries / pages of rates analysis / summary / sub-summary etc.) shall be declared as **"non-responsive"** and not to be included in the competition for determination of lowest evaluated bidder.
- 12.3 All duties, taxes (including PRA) and other levies payable by the Contractor under the Contract, or for any other cause, as on the date of opening of the bids shall be included in the rates and prices and the total Bid Price submitted by a bidder.
Additional / reduced duties, taxes and levies due to subsequent additions or changes in legislation shall be reimbursed / deducted as per the General Conditions of Contract.
- 12.4 Escalation shall be in accordance with the instructions issued by the Government of Punjab from time to time.
- 12.5 Sales Tax to the extent as provided in the Punjab Sales Tax on Services (Withholding) Rules 2015 shall be deducted and withheld from payment to be made to the service provider for depositing with the Government of Punjab.

IB.13 Currencies of Bid and Payment

- 13.1 The unit rates and the prices shall be quoted by the bidder entirely in Pak rupees. All payments to the bidders shall be made in Pak Rupees only and no foreign currency payment is admissible.

IB.14 Bid Validity

- 14.1 Bids shall remain valid for the period stipulated in the Bid data sheet after the Date of Bid Opening specified in Clause IB.23.
- 14.2 In exceptional circumstances, prior to expiry of the original bid validity period, the Employer may request that the bidders extend the period of validity for a specified additional period which shall in no case be more than the original bid validity period or 180 days whichever is more. The request and the responses thereto shall be made in writing / through E-PADS. A bidder may refuse the request without forfeiting his Bid Security. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his Bid Security for the period of the extension, and in compliance with Clause IB.15 in all respects. Rule 28 of PPR-14 shall be applicable for Bid Validity period.

IB.15 Bid Security

- 15.1 The Bidder shall submit, as part of its bid, hard copy of the financial instrument in addition to the soft copy uploaded on e-PADS as bid security of the amount specified in the Bid Data Sheet.
- 15.2 The Bid security shall be in Pakistan Rupees and shall be in form of CDR / Bank Guarantee from any Scheduled Bank in Pakistan, in favor of Chief Engineer / D.G. (O&M), PSPA valid for 30 Days, beyond the validity of Bid.
- 15.3 Any Bid for which bid security isn't received in hard form at the office of Chief Engineer / D.G. (O&M) before E-bid submission deadline may be rejected by the Procuring Agency as non-responsive. However, all such bidders shall be under an obligation to submit the financial instrument to the procuring agency (with cogent / plausible / justified reason for not submitting the same in time) as soon as possible in order to get the financial instrument released for encashment purpose from the issuing financial institution. In case of failure of submission of original bid security instrument (without any cogent / plausible / justified reason) as bid security by a bidder / contractor prior to the deadline for the submission of bids, the procuring agency may forfeit the same after providing an opportunity of hearing to the concerned bidder. However, in terms of Rule 67A of PPR-14, the bidder may file a representation against such decision of procuring agency before Managing Director, PPRA.
- 15.4 The Bid security of unsuccessful bidder shall only be released upon the hard copy by adopting the following mechanism:
- (a) Written request certifying that bidder has no objection or grievance against the Procurement process.
 - (b) Time for grievance period as provided by Punjab Procurement Rules-2014 has expired.

- (c) If he filed a grievance and same is dismissed by the Grievance Committee.
- 15.5 The successful Bidder's Bid security shall only be released upon the hard copy subsequent to the Bidder signing the contract and furnishing the Performance Guarantee.
- 15.6 The Bid Security may be forfeited:
 - (a) If the bidder withdraws his bid except as provided in IB 22.1;
 - (b) If the bidder does not accept the correction of his Bid Price pursuant to IB 27.2 hereof; or
 - (c) In the case of successful bidder, if he fails within the specified time limit to:
 - (i) Furnish the required Performance Guarantee;
 - (ii) Sign the Contract Agreement, or
 - (iii) Furnish the required JV agreement within 7 days of the receipt of letter of acceptance.

IB.16 Alternate Proposals by Bidder

- 16.1 No alternate proposals are allowed in single stage two envelope method.

IB.17 Pre-Bid Meeting

- 17.1 The Employer may, on his own motion or at the request of any prospective bidder(s), hold a pre-bid meeting to clarify issues and to answer any questions on matters related to the Bidding Documents. The date, time and venue of pre-bid meeting, if convened, is as stipulated in the Bid data sheet. All prospective bidders or their authorized representatives shall be invited to attend such a pre-bid meeting.
- 17.2 The bidders are requested to submit questions, if any, in writing so as to reach the Employer not later than three (3) days before the proposed pre-bid meeting.
- 17.3 Minutes of the pre-Bid meeting, if applicable, including the text of the questions asked by Bidders, including those during the meeting (without identifying the source) and the responses given, together with any responses prepared after the meeting will be uploaded promptly on e-PADS for all prospective Bidders who intend to participate in the Bidding. Any modification of the Bidding Documents listed in IB 7.1 hereof, which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause IB.9 and not through the minutes of the pre-bid meeting.
- 17.4 Absence at the pre-bid meeting will not be a cause for disqualification of a bidder.

IB.18 Format and Signing of Bid

- 18.1 The procuring agency doesn't require the submission of hard copies of the bids. All the e-bids shall be submitted on the e-PADS in the manner as specified in the advertisement and the bidding documents.
- 18.2 Electronic signatures, individual identification, and encryptions generated by the

- approved system shall suffice to meet the requirement of the rules with respect to the signing and sealing of the documents.
- 18.3 In case e-bid or proposal including record submitted on the e-PADS found corrupt, unreadable or contain virus, the e-bid or proposal shall be rejected.
- 18.4 The Bidder shall furnish information as described in the Form of Bid on commissions or gratuities, if any, paid or to be paid to agents relating to this Bid and to contract execution if the Bidder is awarded the contract.
- 18.5 Bidders are particularly directed that the amount entered on the Letter of Financial Bid shall be for performing the Contract strictly in accordance with the Bidding Documents.
- 18.6 All appendices to Bid are to be uploaded after being properly completed and signed.
- 18.7 No alteration is to be made in the Financial Bids and Technical Bids nor in the Appendices thereto except in filling up the blanks as directed. If any such alterations be made or if these instructions be not fully complied with, the bid may be rejected.

D. SUBMISSION OF BIDS FOR SINGLE STAGE TWO ENVELOPE BIDDING PROCEDURE

IB.19 Sealing and Marking of Bids

- 19.1 Submission of encrypted electronic file shall be deemed submission in “envelope” or “package” as mentioned in the rules.
- 19.2 Electronic signatures, individual identification, and encryptions generated by the approved system shall suffice to meet the requirement of the rules with respect to the signing and sealing of the documents.
- 19.3 In case of Single Stage Two Envelope Procedure, The Bid shall comprise two encrypted electronic files submitted simultaneously via uploading on the e-PADS, one called the Technical Proposal and the other Financial Proposal.

IB.20 Deadline for Submission of Bids

- 20.1 The complete E-bids must be submitted online on e-Procurement System (EPADS) website i.e. <https://punjab.eprocure.gov.pk> no later than the time and date specified in the Bid Data Sheet.
- 20.2 The bidder shall complete and authenticate his e-bid or proposal and submit it within time.
- 20.3 The Employer may, at his discretion, extend the deadline for submission of Bids by issuing an amendment in accordance with Clause IB.9, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will thereafter be subject to the deadline as extended.

IB.21 Corrupt, un-readable or virus containing e-bid

- 21.1 In case e-bid or proposal including record submitted on the e-PADS found corrupt, unreadable or contain virus, the e-bid or proposal shall be rejected.

IB.22 Modification, Substitution and Withdrawal of Bids

- 22.1 The Bidder shall be allowed to alter or modify or withdraw his e-bid or proposal before the closing time for submission of the e-bid or proposal.
- 22.2 No e-Bid may be modified after the deadline for submission of e-Bids.
- 22.3 No e-Bid may be withdrawn in the interval between the deadline for submission of e-Bids and the expiration of the period of Bid validity specified by the Bidder on the Bid Form. Withdrawal of a Bid during this interval through written notice may result in the Bidder's forfeiture of its Bid security (along with other remedies available under PPR-14).
- 22.4 Revised e-bid may be submitted after the withdrawal of the original e-bid before the deadline for submission of e-Bids.

E BID OPENING AND EVALUATION FOR SINGLE STAGE TWO ENVELOPE BIDDING PROCEDURE

IB. 23 Bid Opening

- 23.1 The term "opening" wherever appearing in the PP Rules 2014 shall, inter alia, refer to downloading, de-encrypting or reading a secure encrypted electronic folder or file within the meaning of Rule 30 of PP Rules, 2014.
- 23.2 The e-bid or proposal and e-application for prequalification, as the case may be, shall be opened on the e-PADS on the time and place as specified in the Bid Data Sheet.
- 23.3 For opening of an e-bid or proposal and e-application for prequalification, as the case may be, the e-PADS shall, at the time of opening, provide one time password to all the members of the concerned committee upon their registered numbers and emails.
- 23.4 The e-PADS shall not allow to open the e-bid or proposal and e-application for prequalification, as the case may be, unless all the committee members enter one time password.
- 23.5 The Procuring Agency will open all e-Bids on e-PADS, in public, in the presence of Bidders' or their representatives who choose to attend, and other parties with a legitimate interest in the Bid proceedings at the place, on the date and at the time, specified in the BDS. The Bidders' representatives present shall sign a register as proof of their attendance and the same shall be uploaded on e-PADS.
- 23.6 In case of Single Stage Two Envelope Procedure, the Procuring Agency will open the Technical Proposals on e-PADS in public at the address, date and time specified in the BDS in the presence of Bidders' designated representatives who choose to attend and other parties with a legitimate interest in the Bid proceedings. The Financial Proposals will remain unopened on e-PADS until the specified time of their opening. Only technically responsive bidder(s) will be qualified for opening of financial bid(s). Financial

- bid(s) of bidder(s) found technically nonresponsive shall remain unopened in the e-PADS.
- 23.7 The encrypted files holding the Technical Proposals shall be opened and downloaded one at a time, and the following read out and recorded: (a) the name of the Bidder; (b) the presence of a Bid Security, if required; and (c) Any other details as the Procuring Agency may consider appropriate.
- 23.8 Bidders are advised to send in a representative with the knowledge of the content of the e-Bid who shall verify the information read out from the submitted documents. Failure to send a representative or to point out any un-read information by the sent Bidder's representative shall indemnify the Procuring Agency against any claim or failure to read out the correct information contained in the Bidder's Bid.
- 23.9 No e-Bid will be rejected at the time of Bid opening except for e-bids found corrupt, unreadable or containing virus.
- 23.10 The Procuring Agency shall prepare minutes of the Bid opening.
- 23.11 The Bidders' representatives who are present shall be requested to sign on the attendance sheet. The omission of a Bidder's signature on the record shall not invalidate the contents and affect the record. A copy of the record shall be uploaded on e-PADS.
- 23.12 A copy of the minutes of the Bid opening shall be furnished to individual Bidders upon request.

Preliminary Examination of Technical Bids

- 23.13 a) The Employer shall first examine qualification and experience Data as per appendix M and N submitted by the Bidder. The technical proposal examination of those bidders only shall be taken in hand who meet the minimum requirement as mentioned in appendix M and N. Only substantially responsive qualification shall be considered for further evaluation.
- b) The Employer shall examine the Technical Bid to confirm that all the documents have been provided, and to determine the completeness of each document submitted.
- 23.14 The Employer shall confirm that all the documents and information have been provided for evaluation of technical bid as required under these bidding documents.
- 23.15 At the end of the evaluation of the Technical Bids, the Employer will invite only those bidders who have submitted substantially responsive Technical Bids and who have been determined as being qualified for award to attend the opening of the Financial Bids. The date, time, and location of the opening of Financial Bids will be advised on e-PADS by the Employer. Bidders shall be given reasonable notice for the opening of Financial Bids.
- 23.16 The Employer will notify Bidders on e-PADS who have been rejected on the grounds of their Technical Bids being substantially non-responsive to the requirements of the Bidding Document. Their Financial Bids shall remain unopened on e-PADS.
- 23.17 The Employer shall conduct the opening of Financial Bids of all Bidders who submitted substantially responsive Technical Bids, on e-PADS, publicly in the presence of Bidders' representatives who choose to attend at the address, date and time specified by the

Employer. The Bidders' representatives who are present shall be requested to sign on the attendance sheet. The omission of a Bidder's signature on the record shall not invalidate the contents and affect the record. A copy of the record shall be uploaded on e-PADS.

IB.24 Process to be Confidential

- 24.1 Information relating to the examination, clarification, evaluation and comparison of bid and recommendations for the award of a contract shall not be disclosed to bidders or any other person not officially concerned with such process before the announcement of final bid evaluation report which shall be done at least 10 days prior to the award of Contract. The announcement to all Bidders will include table(s) comprising read out prices, discounted prices, price adjustments made (if applicable), final evaluated prices and recommendations against all the bids evaluated. Any effort by a bidder to influence the Employer's processing of bids or award decisions may result in the rejection of such bidder's bid. Whereas any bidder feeling aggrieved may lodge a written complaint not later than ten 10 days after the announcement of Technical and Financial Bids. In case of single stage - two envelope bidding procedure, any bidder feeling aggrieved from technical evaluation may file a grievance within 5 days of announcement of the technical evaluation report. After completion of the technical evaluation process, the procuring agency shall immediately upload the technical evaluation report on the e-PADS for obtaining/ receiving grievance petitions from the prospective bidders (if any). After the exhaustion of 5 days period, the complainant cannot raise any objection on technical evaluation of the report. However mere fact of lodging a complaint shall not warrant suspension of the procurement process.

IB.25 Clarification of Bids

- 25.1 As per rule 33(2) of PPR-14, to assist in the examination, evaluation and comparison of Bids and post-qualification of the Bidders, the Procuring Agency may, at its discretion, ask any Bidder for a clarification of its Bid including breakdown of prices. Any clarification submitted by a Bidder that is not in response to a request by the Procuring Agency shall not be considered.
- 25.2 The request for clarification and the response shall be in writing and be uploaded on e-PADS as supporting documents. In case of Single Stage Two Envelope Procedure, no change in the prices or substance of the Bid shall be sought, offered, or permitted. Whereas in case of Single Stage One Envelope Procedure, only the correction of arithmetic errors discovered by the Procuring Agency in the evaluation of Bids should be sought in accordance with Clause IB.28.
- 25.3 The alteration or modification in The Bid which in any way affect the following parameters will be considered as a change in the substance of a bid:
- a) evaluation & qualification criteria;
 - b) required scope of operation and maintenance services and related materials;
 - c) all securities requirements;

- d) tax requirements;
 - e) Terms and conditions of bidding documents.
 - f) change in the ranking of the Bidder
- 25.4 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its bid may be rejected. Rule 33 of PPR-14 shall be applicable for clarifications.

IB.26 Examination of Bids and Determination of Responsiveness

- 26.1 Prior to the detailed evaluation of bids, the Employer will determine whether each bid is substantially responsive to the requirements of the Bidding Documents.
- 26.2 A substantially responsive bid is one which (i) meets the eligibility criteria; (ii) has been properly submitted through e-PADS; (iii) is accompanied by the required Bid Security (furnished in hard form before e-bid submission deadline); (iv) Includes signed Integrity Pact where required as per clause IB.35; and (v) conforms to all the terms, conditions and specifications of the Bidding Documents, without material deviation or reservation (vi) meets the qualification criteria as specified in Appendix-M & N. A material deviation or reservation is one (i) which affect in any substantial way the scope, quality or performance of the Works; (ii) which limits in any substantial way, inconsistent with the Bidding Documents, the Employer's rights or the bidder's obligations under the Contract; (iii) adoption/rectification whereof would affect unfairly the competitive position of other bidders presenting substantially responsive bids. Only substantially responsive bid shall be considered for further evaluation.
- 26.3 If a bid is not substantially responsive, it may not subsequently be made responsive by correction or withdrawal of the non-conforming material deviation or reservation. The Employer may, however, seek confirmation/ clarification through e-PADS which shall be provided on e-PADS.

IB.27 Correction of Errors

- 27.1 Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:
- (a) Where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
 - (b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, unless in the opinion of the Employer there is an obviously gross misplacement of the decimal point in the unit rate, in which case the line item total as quoted will govern and the unit rate will be corrected.
- 27.2 The amount stated in the Letter of Financial Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and with the concurrence of the bidder, shall be considered as binding upon the bidder. If the bidder

does not accept the corrected Bid Price, his Bid will be rejected, and the Bid Security shall be forfeited in accordance with IB.15.6 (b) hereof.

IB.28 Evaluation and Comparison of Bids

- 28.1 The Employer will evaluate and compare only the Bids determined to be substantially responsive in accordance with Clause IB.26.
- 28.2 In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:
 - (a) Making any correction for errors pursuant to Clause IB.27;
 - (b) Excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including competitively priced Day work; and
 - (c) Making an appropriate adjustment for any other acceptable variation or deviation.
- 28.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.

F. AWARD OF CONTRACT

IB.29 Award

- 29.1 Subject to Clauses IB.30 and IB.34, the Employer will award the Contract to the bidder whose bid has been determined to be substantially responsive to the Bidding Documents and who has offered the lowest evaluated Bid Price, provided that such bidder has been determined to be eligible in accordance with the provisions of Clause IB.3 and qualify pursuant to IB 29.2.
- 29.2 The Employer, at any stage of the bid evaluation, having credible reasons for or prima facie evidence of any defect in bidder's capacities, may require the bidders to provide information concerning their professional, technical, financial, legal or managerial competence whether already pre-qualified or not:
Provided that such qualification shall only be laid down after recording reasons in writing. They shall form part of the records of that bid evaluation report.

IB.30 Employer's Right to Accept any Bid and to Reject any or all Bids

- 30.1 Notwithstanding Clause IB.29, the Employer reserves the right to accept or reject any Bid by giving reasons, and to annul the bidding process and reject all bids, at any time prior to the acceptance of any bid or proposal, without thereby incurring any liability to the affected bidders or any obligation except that the grounds for rejection of all bids shall upon request be communicated to any bidder who submitted a bid, without justification of grounds. Rejection of all bids shall be notified to all bidders promptly.

IB.31 Notification of Award

- 31.1 Prior to the expiration of the period of Bid validity, the Procuring Agency will shall upload letter of acceptance or purchase order, as the case may be, on the e-PADS and original copy of the same shall be sent to the successful Bidder or Contractor. This letter shall name the sum which the Employer will pay the Contractor in consideration of the execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called the “Contract Price”).
- 31.2 No Negotiation with the bidder having evaluated as lowest responsive or any other bidder shall be permitted. However, the lowest evaluated bidder may further reduce the Bid Price voluntarily without compromising the quality/ quantity.
- 31.3 The notification of award and its acceptance by the bidder will constitute the formation of the Contract, binding the Employer and the bidder till signing of the formal Contract Agreement.
- 31.4 The procuring agency and the successful bidder shall sign the contract manually. A signed copy of the Contract Agreement, where applicable, shall also be uploaded on the e-PADS.
- 31.5 The successful bidder or contractor, if required, shall submit hard copy of the financial instrument as performance guarantee. The performance guarantee shall only be released upon the hard copy.
- 31.6 Upon furnishing by the successful bidder of a Performance guarantee, the Employer will promptly notify the other bidders that their Bids have been unsuccessful and return their bid securities. No bid security can be returned without exhausting the grievance period or without finally disposing off the complaint of the non-responsive bidder. However, bid security may be returned earlier if any bidder submits affidavit that he is satisfied with the proceedings and hence his bid security may be returned.

IB.32 Performance guarantee

- 32.1 Within fifteen (15) days of the receipt of notification of award from the Procuring Agency, the successful Bidder shall furnish hard copy of the financial instrument of the Performance Guarantee in accordance with the Conditions of Contract, in the Performance Guarantee Form provided in the Bidding documents, or in another form acceptable to the Procuring Agency.
- 32.2 Failure of the successful bidder to comply with the requirements of IB.32.1 or IB.33 or IB.35 shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security along with other remedies available under PPR-14. After that, the Procuring Agency may decide to award the contract to the next lowest evaluated Bidder, keeping in view the Bid validity time, or call for new Bids keeping in view the concept of value for money as defined under rule-2(ae) read with Principles of Procurement as enunciated in rule-4 of PPR-14.

IB.33 Signing of Contract Agreement

- 33.1 Within 14 days from the date of furnishing of acceptable Performance guarantee under the Conditions of Contract, the Employer will send the successful bidder the Contract Agreement in the form provided in the Bidding Documents, incorporating all agreements between the parties.
- 33.2 The formal Agreement between the Employer and the successful bidder shall be executed manually within 14 days of the receipt of the Contract Agreement by the successful bidder from the Employer. A signed copy of the Contract Agreement, where applicable, shall also be uploaded on the e-PADS.

IB. 34 General Performance of the Bidders

The Employer reserves the right to obtain information regarding performance of the bidders on their previously awarded contracts/works. The Employer may in case of consistent poor performance of any Bidder as reported by the employers of the previously awarded contracts, interalia, reject his bid and/or refer the case to the concerned forum(s). Upon such reference, the concerned forum(s) in accordance with its rules, procedures and relevant laws of the land take such action as may be deemed appropriate under the circumstances of the case including black listing of such Bidder and debarring him from participation in future bidding for similar works.

IB.35 Integrity Pact

The Bidder shall sign and stamp the Integrity Pact provided at Appendix-L to Bid in the Bidding Documents for all procurement contracts exceeding Rupees ten Million. Failure to provide such Integrity Pact shall make the bidder non-responsive.

IB.36 Instructions not Part of Contract

Bids shall be prepared and submitted in accordance with these Instructions which are provided to assist bidders in preparing their bids, and do not constitute part of the Bid or the Contract Documents. Submission of Bids shall be construed as evidence that the bidder has admitted all provisions of the Instruction to the Bidders.

IB.37 PPRA Act, 2009 and PPR-14 will have over-riding effect

PPRA Act, 2009 and PPR-14 as amended up to date will supersede and will have an over-riding effect in case in case of any contradiction with these Instructions, the Contract or any other part of the Bidding Documents.

BID DATA SHEET

BID DATA SHEET

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

1.1 Name and address of the Employer:

1.1 Name and address of the Employer is:

Chief Engineer / D.G. (O&M)
Punjab Saaf Pani Authority
EFU House, 4th Floor, Jail Road,
Main Gulberg, Lahore.
Telephone: 042-99263029
Email: procurementaalebepak@gmail.com
Website: <https://saafpani.com.pk>

Name of the Project & Summary of the Works:

Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division

The procurement shall be National Competitive Bidding based on Single Stage Two Envelopes Bidding Procedure on e-PADS (by uploading PDF File) as per Punjab Procurement Rules 2014 and e-Procurement Regulations issued from time to time.

Contract Identification Number: Tender No. Dir (P&C) / 118

The work included in this Contract is as follows but not limited to these only:

- Installation of Reverse Osmosis Plant 2000 LPH
- Construction of New Bore Holes
- Installation of Solar PV Solution for 2000 LPH RO Plants
- Civil & Mechanical Work
- Construction of Injection Well

2.1 Source of Funds:

The source of financing for the Project is arranged by Govt of Punjab.

8.1 Time limit for clarification:

At least 03 days prior to the date of submission of bids.

10.1 Bid language:

The language of bid and all correspondence related thereto shall be English.

11.1 (A) The Bidder shall submit with its Technical Bid the following documents:

- (a) Letter of Technical Bid
- (b) Bid Security (IB.15)
- (c) Written confirmation authorizing the signatory
of the Bid to commit the Bidder (IB.18.5)
- (d) Certificate that the bidder is not blacklisted by Punjab Saaf Pani Authority or PPRA
- (e) Special Stipulations (as filled by the Employer) (appendix –A)
- (f) Proposed Construction Schedule (appendix –E)
- (g) Method of Performing the Work (appendix –F)
- (h) Availability of Critical Equipment (appendix –G)
- (i) Construction Camp and Housing Facilities (appendix –H)
- (j) List of Sub-contractors (as required) (appendix –I)
- (k) Organization Chart for Supervisory Staff (appendix –K)
- (l) Integrity Pact (appendix –L)
- (m) Financial Competence and Access to financial
Resources (appendix –M)
- (n) Past Performance, Current Commitment,
Qualification and Experience (appendix –N)

11.1(B) The Bidder shall submit with its Financial Bid the following documents:

- (a) Letter of Financial Bid
- (b) Bill of Quantities (appendix –D)
- (c) Estimated Progress Payments (appendix –J)

The bidder shall in no case include any data of his Financial Bid in the file containing the Technical Bid. Any violation of this prescription will result in bid rejection.

14.1 Period of Bid Validity:

Bids shall remain valid for a period of 120 days from the deadline for submission of Bids.

15.1 Amount of Bid Security:

PKR 1,056,622/-

17.1 Venue, time, and date of the pre-Bid meeting:

The Meeting will not take place.

19.2(b) Name and Number of the Contract:

Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division

Contract Identification Number: Tender No. Dir (P&C) / 118

20.1(a) Deadline for submission of e-bids on e-PADS:

12:00 PM on 09.03.2026

23.1 Venue, time, and date of Bid opening:

The bids will be opened on e-PADS at the Office of:
Chief Engineer / D.G. (O&M), Punjab Saaf Pani Authority
EFU House, 4th Floor, Jail Road, Main Gulberg, Lahore.

12:30 PM on 09.03.2026

32.1 Standard form and amount of Performance guarantee acceptable to the Employer:
Irrevocable Unconditional Bank Guarantee from any Scheduled Bank in Pakistan for a sum equivalent to 5% of the accepted tender Price.

**Letters of Technical Bid/ Financial Bid,
And
Appendices to Bid**

Letter of Technical Bid

Date:

Bid Reference No:

(Name of Contract/Works)

To:

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (IB). Complete bidding document is binding upon us and we fully understand that the PPRA Act, 2009 and the PPR-14 as amended up to date supersedes this bidding document, in case of any contradiction, and the same are also binding upon us;
- (b) We offer to execute and complete in conformity with the Bidding Documents the following Works:.....
- (c) Our Bid consisting of the Technical Bid and the Financial Bid shall be valid for a period of 120 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) As security for due performance of the under takings and obligations of our bid, we submit here with a Bid security, in the amount specified in Bid data sheet, which is valid (at least) 30 days beyond validity of Bid itself.
- (e) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process.
- (f) We agree to permit Employer or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors. This permission is extended for verification of any information provided in our Technical Bid which comprises all documents enclosed herewith in accordance with IB.11.1 of the Bid data sheet.

Name

In the capacity of

Signed

.....

Duly authorized to sign the Bid for and on behalf of

Date

.....

Address.....

Letter of Financial Bid

Date:

Bid Reference No:

(Name of Contract/Works)

To:

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (IB)9;
- (b) The total price of our Bid, excluding any discounts offered in item (c) below is:.....
- (c) The discounts offered and the methodology for their application are:.....
- (d) Our Bid shall be valid for a period of 120 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (e) If our Bid is accepted, we commit to obtain a performance guarantee in accordance with the Bidding Documents;
- (f) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed and we do hereby declare that the Bid is made without any collusion, comparison of figures or arrangement with any other bidder for the Works.
- (g) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
- (h) We agree to permit Employer or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors. This permission is extended for verification of any information provided in our Technical Bid which comprises all documents enclosed herewith in accordance with IB.11.1 of the Bid data sheet.
- (i) If awarded the contract, the person named below shall act as Contractor's Representative.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

Address.....

SPECIAL STIPULATIONS

1.	Law applicable	The relevant laws applied in the Province of Punjab
2.	Amount of Performance guarantee	5% of Overall Accepted Tender Price stated in the Letter of Acceptance.
3.	Time for Furnishing Program	Within 15 days from the date of receipt of Letter of Acceptance.
4.	Minimum amount of Third-Party Insurance (unambiguous with no deductibles, ensuring all coverages as mentioned in the Bidding Documents)	The amount of insurance taken out by the Contractor per occurrence with number of occurrences unlimited shall be as follows: a. Bodily injury (any one person) PKR 0.5 (Half) Million (Max) b. Fatal Case (any one person) PKR 01 (one) million (Minimum) c. Property Damages Depending upon nature of loss (100% of the Damage)
5.	Time for Commencement	Within 7 days from the date of receipt of Engineer's Notice to Commence which shall be issued within 14 days after signing of Contract Agreement.
6.	Time for Completion	Time for Execution: 45 days from the date of receipt of Engineer's Notice to Commence.
7.	a) Amount of Liquidated Damages	0.1 % of Contract Price stated in the Letter of Acceptance for each day of delay in completion of the Works subject to a maximum of 10% of Contract Price stated in the Letter of Acceptance.
8.	Defects Liability Period (<i>for Rehabilitation Works</i>)	365 Days from the effective date of Taking Over Certificate.
9.	Percentage of Retention Money	As per instruction of Govt. of Punjab from time to time.
10.	Minimum amount of Interim Payment Certificates (Running Bills)	5% of Contract Price stated in the Letter of Acceptance.
11.	Time of Payment from delivery of Engineer's Interim Payment Certificate to the Employer.	30 days in case of local currency
12.	Mobilization Advance * (Interest Free) (Excluding O&M)	Up to 15 % of Contract Price as stated in the Letter of Acceptance, excluding O&M, in two parts: i) First Part: 10 % before the commencement of works: and ii) Second Part: 5 % on the furnishing of a certificate by the Engineer In-charge of the work to the effect that the mobilization by contractor is complete in all respects necessary for due commencement of the work.

Appendix-B to Bid

FOREIGN CURRENCY REQUIREMENTS

----NOT USED----

Appendix-C to Bid

PRICE ADJUSTMENT

-----NOT APPLICABLE-----

BILL OF QUANTITIES

(Refer Volume 2 of Bidding Document)

PROPOSED CONSTRUCTION SCHEDULE

The Works shall be completed on or before the date stated in Appendix-A to Bid. The Bidder shall provide as Appendix-E to Bid, the Construction Schedule in the bar chart (CPM, PERT or any other to be specified herein) showing the sequence of work items and the period of time during which he proposes to complete each work item in such a manner that his proposed program for completion of the whole of the Works and parts of the Works may meet Employer’s completion targets in days noted below and counted from the date of receipt of Engineer’s Notice to Commence (Attach sheets as required for the specified form of Construction Schedule):

<u>Description</u>	<u>Time for Completion</u>
a) Rehabilitation / Installation / Construction Works	45 days

METHOD OF PERFORMING THE WORK

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

1. Organization Chart indicating head office and field office personnel involved in management and supervision, engineering, equipment maintenance and purchasing.
2. Mobilization in Pakistan, the type of facilities including personnel accommodation, office accommodation, provision for maintenance and for storage, communications, security and other services to be used.
3. The method of executing the Works, the procedures for installation of equipment and machinery and transportation of equipment and materials to the site.
4. Production of Authorization from Original Equipment Manufacturer. It should be noted that, Authorization should directly be from Original Equipment Manufacturer. Failing to comply, will result in non-responsiveness of the technical bid.
5. Quality control / Quality assurance measures to be adopted including procedures to be followed for carrying out all tests required under specifications.
6. Quality control / Quality assurance measures to be adopted including procedures to be followed for carrying out all tests required under specifications.

Note: Import documents like bill of lading, custom clearance, Air way bill, port of shipment etc. will be provided by the contractor to the consultant/employer for verification of imported equipment prior to submit the bill invoice of the same.

LIST OF MAJOR EQUIPMENT – RELATED ITEMS

The Bidder will provide a list of all major equipment and related items, if required by the procuring agency, under separate heading for items owned, to be purchased or to be arranged on lease by him to carry out the Works. The information shall include make, type, capacity, and anticipated period of utilization for all equipment which shall be in sufficient detail to demonstrate fully that the equipment will meet all requirements of the Specifications.

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

LIST OF MAJOR EQUIPMENT

Equipment:

The Bidder must demonstrate that it has the key equipment listed hereafter:

No.	PLANT/EQUIPMENT				
	Equipment Type and Characteristics	Total Nos. available	Under Utilization on other projects, if applicable	Nos. waiting to be shifted to new project(s)	Min. Number Required for this Project
1					
2					
3					
4					
5					
6					

CONSTRUCTION CAMP AND HOUSING FACILITIES

The Contractor in accordance with Clause 34 of the Conditions of Contract shall provide description of his construction camp's facilities and staff housing requirements.

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

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

1. Site Preparation (clearing, land preparation, etc.).
2. Provision of Services.
 - a) Power (expected power load, etc.).
 - b) Water (required amount and system proposed).
 - c) Sanitation (sewage disposal system, etc.).
3. Construction of Facilities
 - a) Contractor's Office. Workshop and Work Areas (areas required and proposed layout, type of construction of buildings, etc.).
 - b) Warehouses and Storage Areas (area required, type of construction and layout).
 - c) Housing and Staff Facilities (Plans for housing for proposed staff, layout, type of construction, etc.).
4. Construction Equipment Assembly and Preparation (detailed plans for carrying out this activity).
5. Other Items Proposed (Security services, etc.). The Contractor should mention here what are his proposed environmental measures for the project as per EPA rules like treatment of wastewater and water quality etc. The Contractor shall submit a detailed EMP (Environmental Management Plan) to describe how materials are removed from site and disposed off at a safe location, prevention for the contamination of ground and surface water in neighboring areas etc. including remedial measures for adoption.
6. Detail of testing Lab with testing equipment etc.

LIST OF SUBCONTRACTORS

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

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

Part of Works (Give Details)	Subcontractor (With Complete Address)
1	2

ESTIMATED PROGRESS PAYMENTS

Bidder's estimate of the value of work, which would be executed by him during each of the periods stated below, based on his Program of the Works and the Rates in the Bill of Quantities, expressed in Pakistani Rupees (to be attached only with Financial Bid):

***Attachment of this Appendix in Technical Bid will result in rejection of bid.**

Period	Amounts (Million Rs.)
1	2
1st Month	
2nd Month (Till 45 Days)	
Bid Price	

Appendix-K to Bid

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

(INTEGRITY PACT)

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

Contract No. _____ Dated _____

Contract Value: _____

Contract Title: _____

..... [Name of Supplier] 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 the Punjab (GoPb) or any administrative subdivision or agency thereof or any other entity owned or controlled by GoPb through any corrupt business practice.

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

[Name of Supplier] 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 GoPb and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

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

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

Name of Employer:

Name of Contractor:

Signature:

Signature:

[Seal]

[Seal]

FINANCIAL COMPETENCE AND ACCESS TO FINANCIAL RESOURCES

The financial position of the bidder shall be checked as per following details:

1. SOUNDNESS AND ACCESS TO FINANCIAL RESOURCES:

“The Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credits, and other financial means, other than any contractual advance payments, to meet the financial requirements of the contract in the amount of his bid. As a minimum the Bidder must show that his resources, in term of at least his last three years working capital and line of credits, will be adequate to cover the work commitments.

The Bidder must submit its annual audited financial statements/reports for the last three years duly certified by Chartered Accountant firm as enclosure with this Appendix.

*Any line of credit indicated needs to have been certified by the Bank and the said certificate must enclosed with this Appendix.

In case of Joint Venture, the JV must collectively satisfy the requirement for which purpose the relevant figures for each of the partners shall be added together to arrive at the JV’s total capacity.

Credit Marks for financial position of the firm or JV shall be awarded based on the criteria mentioned in Appendix - N:

TECHNICAL EVALUATION CRITERIA

Qualification will be based on all the criteria given regarding the Bidder's Work Experience Record, Financial Soundness, Plant Data, Tools & Plants, Method Information and Personnel Capabilities as demonstrated by the Bidder's responses. The Employer reserves the right to waive minor deviations if these don't materially affect the capability of a Bidder to perform the contract. The Bidder must meet work experience as single entity or JV partner or through specialist subcontractor (if proposed by the bidder for key activities having experience as single entity) to be declared responsive.

2 - Weightage /Marks

The weightage / distribution of the marks of the evaluation criteria is as given below:

1. Work Experience	35
2. Technical Specifications	15
3. Authorization of OEM	15
3. Personnel Capabilities	10
4. Financial Soundness	20
5. Method Information	05

Note: -The applicant must score at least total 65 marks to qualify.

2.1 Basic Eligibility

The firms fulfilling the following basic requirements shall only be considered for further evaluation (relevant documents to be attached):

- a) Duly licensed by the Pakistan Engineering Council (PEC) in the Category "C-5 & above" with specialized code CE – 09 / 10, ME – 06 & EE – 11 (Lead Partner in case of JV at minimum).
- b) Incorporated with Security and Exchange Commission of Pakistan or Registrar of Firms as the case may be. [NTN Verification along with requisite Affidavit of sole-proprietorship on judicial e-stamp paper duly certified by Notary Public / Oath Commissioner, to be provided in case of Sole-Proprietor.]
- c) Registered with active status from Tax Authorities (Federal Board of Revenue & Punjab Revenue Authority).
- d) Registered with the registration system available on the e-PADS.
- e) No Blacklisting by the Punjab Saaf Pani Authority or PPRA against the bidder. The bidder must submit with his bid No Blacklisting / declared ineligible (by PSPA or PPRA) affidavit on judicial e-stamp paper duly certified by Notary Public / Oath Commissioner.
- f) Submission of technical proposal accompanied by the bid security in the shape of CDR / Bank Guarantee from any Scheduled Bank in Pakistan, in favor of Chief Engineer / D.G. (O&M), PSPA for amounting to Rs. 1,056,622/-

- g) Submission of certificate that the company will execute the construction / rehabilitation work within stipulated time i.e., 45 days from the award of work.
- h) Submission of Signed and Stamped Integrity Pact on judicial e-stamp paper duly certified by Notary Public / Oath Commissioner.
- i) Submission of Affidavit (on judicial e-stamp paper duly certified by Notary Public / Oath Commissioner) to the effect that: -
 - The documents/photocopies provided with Bid are authentic. In case of any fake/bogus document found at any stage, the Bidder shall be blacklisted as per Law/ Rules.
 - The provided information is correct.
- j) Foreign firm participating in the JV shall have the nationality of an eligible country. Foreign firm shall be deemed to have the nationality of a country if the foreign firm is a national of that country; or is constituted, incorporated, or registered and operates in conformity with the provisions of the laws of that country.

Note: In case of joint venture / consortium, all the firms must fulfill the basic eligibility criteria except condition a.

The applicant must submit JV agreement in case of projects completed as a partner of JV clearly showing percentage share of all partners of JV, if the JV agreement showing percentage of the partners is not attached, the submitted project will not be considered during evaluation. In case of consortium between local and foreign company, the local company at the stage of evaluation must meet the qualification requirement as per PEC category & codes and thereafter, for accord of contract agreement, the JV must be registered with relevant institutions as per PEC by-Laws.

2.2 Detail Eligibility criteria

a. Working Experience

Marks for work experience of the firm or JV or specialist subcontractor (if proposed by the applicant for key activities having experience as single entity), shall be awarded based on following criteria:

Sr.#	CRITERIA	Max Marks	Marking
1.	Work Experience of Installation / Rehabilitation / O&M of minimum 25 No. of Filtration Plants in last (05) years having cost of not less than Rs. 25 million.	35	• Full Marks for having experience of at least 25 no. of Filtration plants with cost of at least Rs. 25 million. • No marks will be given in case of non-compliance of above requisite experience or worth. • No marks will also be given if the bidder fails to provide documentary evidence i.e., Letter of Acceptance / Contract Agreement.

b. Technical Specifications

Sr. #	DESCRIPTION / CRITERIA	MARKS	REMARKS
i)	Technical Specifications to be specified by the bidder	15	•15 Marks will be given If bidder complies in totality with the technical specifications mentioned below against each item. •If the bidder deviates from the mentioned specifications, they will be evaluated & marked by the Technical Evaluation Committee accordingly. •The decision of Technical Evaluation Committee will be final in this regard.
	Total Marks	15	

Sr. No	Description	Bidder to Specify
1	Supply, transport, erection, installation, testing & commissioning of 2,000 L/H Reverse Osmosis (RO) Plant for TDS removal along with all other contaminants, including carriage, loading/unloading charges inclusive of all taxes conforming to Mentioned in Technical specifications of filtration plants. Control PLC GSM/GPRS/ SCADA enabled. The unit should be composed of Raw and Product water tanks (2000 Liter capacity for each) Feed and High-Pressure Pump, pressure gauges, variable area flow meter for raw water and for product water totalizer/ water meter, pressure safety switch and valves, Multiport valves, safety filter strainers/cartridges filter, sand filter, carbon filters. System should be fully automatic. Provision of UV system, Anti scalent system with Anti scalent PVDF based dosing Pumps and chemical tank. The complete plant should be able to operate/backwash automatically through Automatic Multiport Valve operated by PLC with same feed pump-based system. All type of piping and instrumentation shall be considered as part of filtration plant complete in all respect. The plant should be supplied to provide the treated water as per the WHO limits (strict compliance). The specifications along with equipment and accessories properly mounted in the frame/skid are given below:	
2	<i>Raw Water Feed Pump</i>	
	Supply Installation and commissioning of 4000 LPH Feed Pump for 2000 LPH RO WFP, complete in all respect Discharge: 4000 LPH Minimum Operation Head: 04 Barg Maximum. Origin: Europe / USA / Asia or Equivalent Pump Type: Vertical / Horizontal Low-Pressure Pump Impeller Type: S.S. 304 Operating Head: Up to 06 Barg Pump Efficiency: $\geq 40\%$ Motor Starter: DOL	
3	<i>Submersible Pump</i>	

	Supply Installation & commissioning of submersible pump 3HP including supporting clamp with steel cable, pump coupling, cable clip, delivery pipe, electric cable complete in all respect. Origin: Europe / USA/ Asia or Equivalent Minimum Discharge: 2000 LPH Minimum Operation Head: Up to 130 m. Pump Type: Submersible Pump Impeller Type: S.S. 304 Motor Starter: DOL	
4	<i>Pre-Filtration</i>	
4 (a)	<i>Sand Filter Vessel</i>	
	Material: FRP Origin: Europe / USA / Asia or Equivalent Filtration Rate: 6 - 15 m/hr Vessel Certification: NSF Operating Pressure Max: Up to 06 Barg	
4 (b)	<i>Filter Media Sand</i>	
	Material: Quartz Silica Sand Origin: Europe / USA / Asia or Equivalent Size of Media: 0.6 - 0.8 mm Cleaning Process: Automatic, through PLC / Time Controller MPV	
4 (c)	<i>Activated Carbon Filter Vessel</i>	
	Material: FRP Origin: Europe / USA / Asia or Equivalent Media & Vessel Certification: NSF Filtration Rate: 5 - 15 m/hr Operating Pressure Max: Up to 06 Barg	
4 (d)	<i>Filter Media Carbon</i>	
	Material: Coconut Shell Origin: Sri Lanka / Thailand or Equivalent Size of Media: 1.2 - 1.6 mm Surface Area: 900 m² / g Bulk Density: 440 - 540 kg / m³ Hardness No: 80 Ash Contents: 5 % Height of Gravel: 200 mm Media Bed Height: > 800 mm	
4 (e)	<i>Cartridge Filter</i>	

	Size: 20 Inches / As per Flow Porosity: 1-5 micron Material: High pressure Plastic Melt Blown PE	
5	<i>RO Skid</i>	
	Frame: Stainless Steel	
6	<i>High Pressure Pump multistage</i>	
	Supply, Installation and commissioning of 4000 LPH High Pressure Pump for 2000 LPH RO WFP, complete in all respect Origin: Europe / USA / Asia or Equivalent Discharge: 2000 LPH Operating Head: Up to 16 Barg Pump Type: Vertical / Horizontal High-Pressure Pump Impeller material: S.S. 304 Pump Efficiency: > 50% Motor Starter: DOL IP 55 Ambient Temperature Class: 45 degrees Celsius	
7	<i>RO Housing</i>	
	Material: FRP Certification: NSF	
8	<i>RO Membrane</i>	
	Supply Installation and commissioning of RO Plant membrane (4x40), including Membrane Housing complete in all respect. Origin: Europe / USA / China Under License of USA or Equivalent Certification: NSF Pore Size: 0.001 Micron Stabilized salt rejection: 99% Capable for TDS: Up to 5000 mg/l Recovery: 15% (each) Life of RO Membrane: 03 to 05 years Pressure Rating: Up to 17 Barg	
9	<i>Automatic PLC Panel</i>	
	Origin: Europe / USA / Asia or Equivalent Programming: Fully automatic with breaker, timer and relays complete in all respects HMI display: For PLC - 10" minimum size with touch screen (Fully automatic control of plant) SCADA enable	
10	<i>Anti Scalent + Injection System</i>	

	Origin: Europe / USA / Asia or Equivalent Pressure: 5 -7 bar Tank Size: Maximum 80 litre Chemical Anti Scalent: Food Grade Material: PVDF Dosing Tank: 80 Litre complete in all respect.	
11	<i>UV Light with SS casing</i>	
	Origin: Europe / USA / Asia or Equivalent Material of Casing: SS 304 / 316 Operating Pressure: 04 Barg Ambient Temperature: Up to 45 degrees Celsius	
12	<i>Raw & Product water tank (2000 L) Each</i>	
	Material: PE Food Grade Float Switch 02 No.	
13	<i>Level Meter / Float Valve / Switch Electronic</i>	
	No: 02 Origin: Europe / USA / Asia or Equivalent	
14	<i>Water Flow Meter</i>	
	No: 02 Origin: Europe / USA/ Asia or Equivalent Type: Rota Meter / Flow Type Material: Acrylic	
15	Pressure Gauges	
16	Online TDS meter	
17	All fittings of PVC Sch.80	
18	Pressure Regulation Switch	
19	Auto on/off Switch for Pump	
20	Automatic Back Wash system for Membrane	
21	Including any item required for Filtration Plant if required	

c. Provision of Authorization letter from Original Equipment Manufacturer.

Sr. #	DESCRIPTION / CRITERIA	MARKS	REMARKS
i)	Provision of Authorization letter for membrane and high-pressure pump from Original Equipment Manufacturer as per the below origin: Plant membrane Origin: Europe / USA / China Under License of USA or Equivalent. High Pressure Pump Origin: Europe / USA / Asia or Equivalent.	15	•Full marks will be given if the applicant is the Original Equipment Manufacturer. •50% Marks will be given if the firm took authorization from Original Equipment Manufacturer and the same is attached. •No Marks will be given if the bidder is neither OEM nor authorization letter from the OEM is provided.
	Total Marks	15	

d. Personnel Capabilities

Bidders will submit the detailed particular of his experts considering that all staff will serve at site full time during execution of works.

Credit Marks for personnel capabilities of the firm or JV shall be granted based on the following criteria:

Sr. #	DESCRIPTION / CRITERIA	No.	MAX MARKS	REMARKS
1	Project Manager (B.Sc. Civil / Chemical Engineer with Min. 5 years relevant experience)	1	7	Add CV's, experience certificates, affidavit of employee on judicial stamp paper. No marks if required documents are not attached.
2	Site Supervisors (DAE with Min. 05 years relevant experience)	3	3 (1 mark each)	
	Total Marks of Personnel Capabilities		10	

Note:

The verification of engineers will be confirmed from Pakistan Engineering Council online website OR verified through PEC acknowledgement receipts which must be attached by the bidder. No

marks will be given if the Employment Status didn't show employed with the firm at online verification of PEC website OR if bidder does not attach acknowledgement receipt.

Bidders will provide short CVs showing details of experts are desired by highlighting the name of expert, qualification, year of graduation or other degree(s), general experience, specific experience, designation, time of association with this firm, PEC affiliation with evidence.

e. Financial Position

The Bidder must submit its annual audited financial statements/reports for the last three years duly certified by Chartered Accountant firm as enclosure with this Appendix.

"Working capital is the difference between current assets and current liabilities and measures the firm's ability to generate cash in the short term."

**Any line of credit indicated needs to have been certified by the Bank and the said certificate must enclosed with this Appendix.*

In case of Joint Venture, the JV must collectively satisfy the requirement for which purpose the relevant figures for each of the partners shall be added together to arrive at the JV's total capacity.

Sr. #	DESCRIPTION / CRITERIA	MARKS	REMARKS
i)	Available Cash/Bank Credit Line Limit (or combination of both) A= Available Cash/Bank Credit Line limit or combination of both (in PKR Million)	10	•Full Marks will be given if "A" is PKR 25 million or above. •For 'A' less than PKR 25 million, marks will be awarded as: $(A/25) * 10$ •No Marks will be given if "A" is less than PKR 10 million. No consideration will be given if Bank statement (In case of Cash) & valid letter from Bank (In case of Credit Line as proof of Credit Line) is not attached.
ii)	Average Working Capital in last three financial years. A= Average Working Capital in last three financial years (in PKR Million)	10	•Full Marks will be given if "A" is PKR 25 million or above. •For 'A' less than PKR 25 million, marks will be awarded as: $(A/25) * 10$ •No Marks will be given if "A" is less than PKR 10 million. Audited financial statements of last three financial years must be

			attached.
	Total Marks of Financial Position	20	

f. Method Information

Sr. #	DESCRIPTION / CRITERIA	MARKS	REMARKS
1	Site Organization	1	• Full Marks for Complete & comprehensive information provided • 50% Marks for Partial or unclear information provided • No marks if no information provided
2	Method Statement	2	
3	Mobilization and Preparatory Works Schedule	1	
4	Proposed Construction Schedule	1	
Total Marks of Method Information		05	

i. Joint Venture (JV)

Joint Venture must comply with the following requirements: -

- a)** The joint venture must collectively satisfy the criteria illustrated at points **a** to **e** of qualification criteria for which purpose the relevant figures for each of the partners shall be added together to arrive at the JV's total capacity.
- b)** Bid shall be signed by all members in the JV so as to legally bind all partners, jointly and severally, and bid shall be submitted with a copy of the JV agreement providing the joint and several liabilities with respect to the contract. The JV must submit the copy JV agreement clearly showing the percentage shares of each member of JV along with the application.

Number of projects that a bidder can undertake to construct as per PEC works by laws is aggregate Professional Credit Points (PCPs) authorized for a category of licensee divided by the PCP of construction and capital cost of single project under consideration.

For example C-3 category contractor should have a minimum of 15 PCPs as per table 'A' below from the Bye Laws/S.R.O. 568(I)/87 at all times and the PCP of individual project (costing say 100 Million rupees) is 5 calculated on the basis of 1 PCP for every 20 Million project cost. It means the contractor can have ongoing projects up to 3 (15 ÷ 5) number of this size.

Table A:-

Contractor's Category	Limit of Construction Cost of Project (Million rupees)	Average annual value of work for last 3 years (Million rupees)	Largest project value during last 5 years (Million rupees)	Paid up capital or net/capital worth (Million rupees)	Minimum requirement of professional credit points (PCP credit)
C-3	Up to 100	10	20	5	15

The evaluation of the personnel shall be carried out as per PEC Engineering Bye Laws 1987 and review his qualification accordingly. PCP/ minimum requirement of staff required for the contractor's works in hand should be in accordance with the provisions of PEC's works byelaws. For example, subject to the other conditional points and limits, a single registered Engineer is given 1 PCP for each year of experience in the construction and operation of engineering works (subject to a minimum of 10 PCPs and maximum of 30 PCPs). The contractor setup has to meet the minimum PCP requirements all time during the currency of the contract for engineering staff to be deployed/ already deployed.

FORMS

**BID SECURITY
PERFORMANCE GUARANTEE
CONTRACT AGREEMENT
MOBILIZATION ADVANCE GUARANTEE/BOND
AND
INDEMNITY BOND FOR SECURED ADVANCE**

BID SECURITY
(Bank Guarantee)

Security Executed on _____
(Date)

Name of Surety (Bank) with Address: _____
(Scheduled Bank in Pakistan)

Name of Principal (Bidder) with Address _____

Penal Sum of Security Rupees . _____ (Rs. _____)

Bid Reference No. _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bid and at the request of the said Principal (Bidder) we, the Surety above named, are held and firmly bound unto _____

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

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Bidder has submitted the accompanying Bid dated _____ for Bid No. _____ for _____ (Particulars of Bid) to the said Employer; and

WHEREAS, the Employer has required as a condition for considering said Bid that the Bidder furnishes a Bid Security in the above said sum from a Scheduled Bank in Pakistan or from a foreign bank duly counter-guaranteed by a Scheduled Bank in Pakistan, to the Employer, conditioned as under:

- (1) that the Bid Security shall remain in force up to and including the date 30 days after the deadline for validity of bids as stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Surety is hereby waived;
- (2) that the Bid Security of unsuccessful Bidders will be returned by the Employer after expiry of its validity or upon signing of the Contract Agreement; and
- (3) that in the event of failure of the successful Bidder to execute the proposed Contract Agreement for such work and furnish the required Performance guarantee, the entire said sum be paid immediately to the said Employer pursuant to Clause 15.6 of the Instruction to Bidders for the successful Bidder's failure to perform.

NOW THEREFORE, if the successful Bidder shall, within the period specified therefore, on the prescribed form presented to him for signature enter into a formal Contract with the said Employer in accordance with his Bid as accepted and furnish within fourteen (14) days of his being requested to do so, a Performance guarantee with good and sufficient surety, as may be

required, upon the form prescribed by the said Employer for the faithful performance and proper fulfilment of the said Contract or in the event of non-withdrawal of the said Bid within the time specified for its validity then this obligation shall be void and of no effect, but otherwise to remain in full force and effect.

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

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

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

SURETY (Bank)

WITNESS:

Signature _____

1. _____

Name _____

Title _____

Corporate Secretary (Seal)

Corporate Guarantor (Seal)

2. _____

Name, Title & Address

Note: The Bid Security must include the address (other than the issuing branch / authority), preferably of the head office of issuing institution, to which the Procuring Agency may communicate for verification of the instrument viz genuineness and originality.

**FORM OF PERFORMANCE GUARANTEE
(Bank Guarantee)**

Guarantee No. _____
Executed on _____
Expiry date _____

[Letter by the Guarantor to the Employer]

Name of Guarantor (Bank) with address: _____
(Scheduled Bank in Pakistan)

Name of Principal (Contractor) with address: _____

Penal Sum of Security (express in words and figures) _____

Letter of Acceptance No. _____ Dated _____

KNOW ALL MEN BY THESE PRESENTS, that in pursuance of the terms of the Bidding Documents and above said Letter of Acceptance (hereinafter called the Documents) and at the request of the said Principal we, the Guarantor above named, are held and firmly bound unto the _____ (hereinafter called the Employer) in the penal sum of the amount stated above for the payment of which sum well and truly to be made to the said Employer, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has accepted the Employer's above said Letter of Acceptance for _____ (Name of Contract) for the _____ (Name of Project).

NOW THEREFORE, if the Principal (Contractor) shall well and truly perform and fulfill all the undertakings, covenants, terms and conditions of the said Documents during the original terms of the said Documents and any extensions thereof that may be granted by the Employer, with or without notice to the Guarantor, which notice is, hereby, waived and shall also well and truly perform and fulfill all the undertakings, covenants terms and conditions of the Contract and of any and all modifications of said Documents that may hereafter be made, notice of which modifications to the Guarantor being hereby waived, then, this obligation to be void; otherwise to remain in full force and virtue till all requirements of Clause 49, Defects Liability, of Conditions of Contract are fulfilled.

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

We, _____ (the Guarantor), waiving all objections and defences under the Contract, do hereby irrevocably and independently guarantee to pay to the Employer without delay upon the Employer's first written demand without cavil or arguments and without requiring the Employer to prove or to show grounds or reasons for such demand any sum or sums up to the amount stated above, against the Employer's written declaration that the Principal has refused or failed to perform the obligations under the Contract which payment will be effected by the Guarantor to Employer's designated Bank & Account Number.

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

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

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

Note: The Performance Guarantee must include the address (other than the issuing branch / authority), preferably of the head office of issuing institution, to which the Procuring Agency may communicate for verification of the instrument viz genuineness and originality.

FORM OF CONTRACT AGREEMENT

This agreement made on _____ which shall be enforced with effect from _____ in pursuance of the Acceptance Letter No ----- dated ----- between Chief Engineer / D.G. (O&M), Punjab Saaf Pani Authority (hereinafter referred to as the Client) and _____ (hereinafter referred to as the Contractor). WHEREAS the Employer is desirous that certain Works, viz _____ should be executed by the Contractor and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein of the Works. It is hereby agreed by both the contracting parties as follows:

ARTICLE-I

That the financial bid Tender No. Dir(P&C)/ ____ was opened on _____ at _____ by the Financial Bid Opening and Evaluation Committee for ----- Acceptance Letter for the above cited Subject at a total cost of _____ has been issued in favor of ----- dated -----

ARTICLE-II

That the bid security submitted with bid in shape of _____ Dated _____ for _____ issued by ----- will be released on accord of the instant agreement.

ARTICLE-III

The contract agreement comprises of _____ pages detailed below: -

1. Invitation Notice for Bid
2. Acceptance Letter No. _____ dated _____ along with complete Bid schedule.
3. Memorandum / Article of Association.
4. Performance Security in shape of Bank Guarantee No. _____ dated _____ for amounting to ----- issued by ----- shall be released / returned 03-Month after successful completion of contract, verified from Bank vide No. _____ dated _____.
5. The General Conditions of Contract for works.
6. Bar Chart of Activity Schedule.

ARTICLE-IV

The contractor will have to complete the work within the stipulated period, according to specifications as mentioned in the acceptance letter and Contract Agreement to the entire satisfaction of the Director Project & Quality Control (South Zone), Punjab Saaf Pani Authority.

ARTICLE-V

That if the contractor fails to comply with any of the conditions of the contract, he will be held liable for the consequences thereof which shall be either in the form of liquidated damages or allotment of work at his risk and cost or both. The damages so incurred shall be recovered from the contractor, either from his security money or his running/outstanding bills. Further, if any information/ document submitted by contractor/ firm, founds false, fabricated, materially incorrect at any stage, he/firm will be liable for blacklisting.

ARTICLE-VI

The payment for mobilization, Secure Advance and Escalation will be considered in accordance with instructions issued by the Government of the Punjab.

ARTICLE-VII

The following documents are to be construed as a whole and in the event of any dispute between the parties the parts of these documents shall control and take precedence in the following order: -

1. Contract Agreement.
2. Invitation Notice for Bid
3. Acceptance Letter No. _____ dated _____ along with complete Bid schedule.
4. Memorandum / Article of Association.
5. Performance Security in shape of Bank Guarantee No. _____ dated _____ for amounting to ----- issued by ----- shall be released / returned 03-Months after successful completion of contract, verified from Bank vide No. ----- dated ----

6. The General Conditions of Contract for works.
7. Bar Chart of Activity Schedule.

Chief Engineer / D.G. (O&M)

MOBILIZATION ADVANCE GUARANTEE
(Unconditional Bank Guarantee)

Guarantee No. _____ Date _____

WHEREAS _____ (hereinafter called the 'Employer') has entered into a Contract for

(Particulars of Contract)
with _____ (hereinafter called the "Contractor").

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

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

AND WHEREAS, _____
(Scheduled Bank in Pakistan acceptable to the Employer)
(hereinafter called the "Guarantor") at the request of the Contractor and in consideration of the Employer agreeing to make the above advance to the Contractor, has agreed to furnish the said Guarantee.

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

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

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

The Guarantor's liability under this Guarantee shall not in any case exceed the sum of Rupees _____ (Rs _____).

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

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

GUARANTOR

- | | | |
|----|-----------|-------|
| 1. | Signature | _____ |
| 2. | Name | _____ |
| 3. | Title | _____ |

WITNESS

1. _____

Corporate Secretary (Seal)

- | | | |
|----|------------------------|---------------------------|
| 2. | _____ | _____ |
| | (Name Title & Address) | Corporate Guarantor(Seal) |

INDEMNITY BOND
FOR SECURED ADVANCE
AGAINST MATERIALS BROUGHT AT SITE

(ON RS.100 NON-JUDICIAL STAMP PAPER)

This Deed of Indemnity is issued by M/s. _____
_____ (Name of the Contractor) in favour of
M/s. _____ (Name of the Employer).

Whereas _____ (hereinafter called the Employer) has paid the Secured Advance against the cost of material through any Bank or like agency by any other method by virtue of the terms of the contract existing between the parties. The details of the material and their price for which secured advance is being sought for the period _____ till consumption of the material is as under:-

- | | | | |
|----------|--------------|-----------|-------------|
| 1. _____ | at Rs. _____ | per _____ | = Rs. _____ |
| 2. _____ | at Rs. _____ | per _____ | = Rs. _____ |
| 3. _____ | at Rs. _____ | per _____ | = Rs. _____ |
| 4. _____ | at Rs. _____ | per _____ | = Rs. _____ |

THEREFORE THIS DEED OF INDEMNITY WITNESSETH AS FOLLOWS:

I/We _____ of M/s. _____
do hereby indemnify M/s _____ for all losses due to thefts, arson, pilferage, loss due to flood and inundation, shortage, deterioration and depreciation etc. through any act of Man or God or slump in the Market of any or all the materials financed or paid by the Employer on our request for financing payment against material.

I/We _____ shall indemnify _____ against any or all claims, action damages arising out of or resulting to the said material.

I/We _____ further declare that we will faithfully abide by the above declaration and solemnly affirm that we will not remove, sell, pilferage any of the materials against which M/s _____ has paid us such a secured advance and will not pledge the same with any Bank, Finance Corporation, Firm, Company, Individual or the like agency or create any change whereon in any from what so ever.

I/We _____ do hereby also declare that in the event of my/our infringement of the declaration made above _____ will be entitled to forfeit all such material and also proceed against me/us according to the relevant clause pertaining to breach of contract and further invoke the power or seek any remedies secured of _____ under the contract Agreement signed with us or otherwise available under law.

Place _____ Dated _____

Contractor _____

PART- I: GENERAL CONDITIONS OF CONTRACT FOR WORKS

GOVERNMENT OF THE PUNJAB

CONTRACT FORM FOR EXECUTION OF WORK

(To be procured by the Contractor)

Copies of the Contract Form for Execution of Work can be obtained from Finance Department Punjab's Website as well as from the Employer.

FINANCIAL BID

FOR

**REPLACEMENT OF TECHNOLOGY (FROM MF TO RO) AT 15 NO.
WATER FILTRATION PLANTS IN MULTAN, BAHAWALPUR & DG KHAN
DIVISION**



**BILL OF QUANTITIES
(VOLUME – 2 OF BIDDING DOCUMENTS)**

PUNJAB SAAF PANI AUTHORITY

PUNJAB SAAF PANI AUTHORITY				
Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division				
BILL OF QUANTITIES				
Sr. No	Description	Qty	Per Unit	Amount (Rs.)
1	Installation of Reverse Osmosis Plant 2000 LPH (MLN BWP)	8		
2	Installation of Reverse Osmosis Plant 2000 LPH (DGK)	2		
3	Construction of Bore Holes (Multan & Bahawalpur)	8		
4	Construction of Bore Holes (DGK)	2		
5	Solar PV Solution For 2000 LPH RO Plant (MLN BWP)	8		
6	Solar PV Solution For 2000 LPH RO Plant (DGK)	2		
7	Civil & Mechanical Work (MLN &BWP)	3		
8	Civil & Mechanical Work DGK	2		
9	Construction of Injection Well (DGK)	2		
10	Construction of Injection Well (MLN & BWP)	3		
Total: -				
PRA Charges 5%				
Total Cost				

PUNJAB SAAF PANI AUTHORITY

Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division

BILL OF QUANTITIES

Installation of Reverse Osmosis Plant 2000 LPH (MLN BWP & DG KHAN)

Sr. No	Description	Qty	Unit Rate (Rs)	Amount (Rs)
1	Supply, transport, erection, installation, testing & commissioning of 2,000 L/H Reverse Osmosis (RO) Plant for TDS removal along with all other contaminants, including carriage, loading/unloading charges inclusive of all taxes conforming to Mentioned in Technical specifications of filtration plants. Control PLC GSM/GPRS/ SCADA enabled. The unit should be composed of Raw and Product water tanks (2000 Liter capacity for each) Feed and High Pressure Pump, pressure gauges, variable area flow meter for raw water and for product water totalizer/ water meter, pressure safety switch and valves, Multiport valves, safety filter strainers/cartridges filter, sand filter, carbon filters. System should be fully automatic. Provision of UV system, Anti scalent system with Anti scalent PVDF based dosing Pumps and chemical tank. The complete plant should be able to operate/backwash automatically through Automatic Multiport Valve operated by PLC with same feed pump based system. All type of piping and instrumentation shall be considered as part of filtration plant complete in all respect. The plant should be supplied to provide the treated water as per the WHO limits (strict compliance). The specifications along with equipment and accessories properly mounted in the frame/skid are given below:	1		
2	Raw Water Feed Pump			
	Supply Installation and commissioning of 4000 LPH Feed Pump for 2000 LPH RO WFP, complete in all respect Discharge: 4000 LPH Minimum Operation Head: 04 Barg Maximum. Origin: Europe / USA / Asia or Equivalent Pump Type: Vertical / Horizontal Low Pressure Pump Impeller Type: S.S. 304 Operating Head: Up to 06 Barg Pump Efficiency: ≥ 40% Motor Starter: DOL			
3	Submersible Pump			
	Supply Installation & commissioning of submersible pump 3HP including supporting clamp with steel cable, pump coupling, cable clip, delivery pipe, electric cable complete in all respect. Origin: Europe / USA/ Asia or Equivalent Minimum Discharge: 2000 LPH Minimum Operation Head: Up to 130 m. Pump Type: Submersible Pump Impeller Type: S.S. 304 Motor Starter: DOL			
4	Pre-Filtration			
4 (a)	Sand Filter Vessel			
	Material: FRP Origin: Europe / USA / Asia or Equivalent Filtration Rate: 6 - 15 m/hr Vessel Certification: NSF Operating Pressure Max: Up to 06 Barg			

PUNJAB SAAF PANI AUTHORITY

Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division

BILL OF QUANTITIES

Installation of Reverse Osmosis Plant 2000 LPH (MLN BWP & DG KHAN)

Sr. No	Description	Qty	Unit Rate (Rs)	Amount (Rs)
4 (b)	<i>Filter Media Sand</i>			
	Material: Quartz Silica Sand Origin: Europe / USA / Asia or Equivalent Size of Media: 0.6 - 0.8 mm Cleaning Process: Automatic, through PLC / Time Controller MPV			
4 (c)	<i>Activated Carbon Filter Vessel</i>			
	Material: FRP Origin: Europe / USA / Asia or Equivalent Media & Vessel Certification: NSF Filtration Rate: 5 - 15 m/hr Operating Pressure Max: Up to 06 Barg			
4 (d)	<i>Filter Media Carbon</i>			
	Material: Coconut Shell Origin: Sri Lanka / Thailand or Equivalent Size of Media: 1.2 - 1.6 mm Surface Area: 900 m ² / g Bulk Density: 440 - 540 kg / m ³ Hardness No: 80 Ash Contents: 5 % Height of Gravel: 200 mm Media Bed Height: > 800 mm			
4 (e)	<i>Cartridge Filter</i>			
	Size: 20 Inches / As per Flow Porosity: 1-5 micron Material: High pressure Plastic Melt Blown PE			
5	<i>RO Skid</i>			
	Frame: Stainless Steel			
6	<i>High Pressure Pump multistage</i>			
	Supply, Installation and commissioning of 4000 LPH High Pressure Pump for 2000 LPH RO WFP, complete in all respect Origin: Europe / USA / Asia or Equivalent Discharge: 2000 LPH Operating Head: Up to 16 Barg Pump Type: Vertical / Horizontal High Pressure Pump Impeller material: S.S. 304 Pump Efficiency: > 50% Motor Starter: DOL IP 55 Ambient Temperature Class: 45 degree Celsius			
7	<i>RO Housing</i>			
	Material: FRP Certification: NSF			
8	<i>RO Membrane</i>			

PUNJAB SAAF PANI AUTHORITY

Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division

BILL OF QUANTITIES

Installation of Reverse Osmosis Plant 2000 LPH (MLN BWP & DG KHAN)

Sr. No	Description	Qty	Unit Rate (Rs)	Amount (Rs)
	Supply Installation and commissioning of RO Plant membrane (4x40), including Membrane Housing complete in all respect. Origin: (Europe / USA / China Under License of USA or Equivalent) Certification: NSF Pore Size: 0.001 Micron Stablized salt rejection: 99% Capable for TDS: Upto 5000 mg/l Recovery: 15% (each) Life of RO Membrane: 03 to 05 years			
9	Automatic PLC Panel			
	Origin: Europe / USA / Asia or Equivalent Programming: Fully automatic with breaker, timer and relays complete in all respects HMI display: For PLC - 10" minimum size with touch screen (Fully automatic control of plant) SCADA enable			
10	Anti Scalent + Injection System			
	Origin: Europe / USA / Asia or Equivalent Pressure: 5 -7 bar Tank Size: Maximum 80 liter Chemical Anti Sclanet: Food Grade Material: PVDF Dosing Tank: 80 Litre complete in all respect.			
11	UV Light with SS casing			
	Origin: Europe / USA / Asia or Equivalent Material of Casing: SS 304 / 316 Operating Pressure: 04 Barg Ambient Temperature: Upto 45 degree celsius			
12	Raw & Product water tank (2000 L) Each			
	Material: PE Food Grade Float Switch 02 No.			
13	Level Meter / Float Valve / Switch Electronic			
	No: 02 Origin: Europe / USA / Asia or Equiavlent			
14	Water Flow Meter			
	No: 02 Origin: Europe / USA/ Asia or Equiavlent Type: Rota Meter / Flow Type Material: Acrylic			
15	Pressure Gauges			
16	Online TDS meter			
17	All fittings of PVC Sch.80			
18	Pressure Regulation Switch			
19	Auto on/off Switch for Pump			
20	Automatic Back Wash system for Membrane			
21	Including any item required for Filtration Plant if required			
Total				

PUNJAB SAAF PANI AUTHORITY						
Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division						
BILL OF QUANTITIES						
Construction of Bore Holes (Multan & Bahawalpur)						
Sr. No.	MRS Ref. #	Description of items	Unit	Qty	Rate	Total Amount (Rs)
1	23-1-1-d	Boring for tubewell in all types of soil except shingle and rock, from ground level to 100 ft. (30 m) depth, including sinking and withdrawing of casing pipe, complete. (6" dia) 150mm.	M	30.00		
2	23-1-2-b	Boring for tubewell in all types of soil except shingle, gravel & rock, from a depth of 100.1 ft. to 200 ft (30 to 60 m) below ground level, including sinking and withdrawing of casing pipe, complete. (6" dia) 150mm.	M	30.00		
3	23-1-3-b	Boring for tubewell in all types of soil except shingle, gravel & rock, from a depth of 200.1 ft. to 300 ft (90 to 90 m) below ground level, including sinking and withdrawing of casing pipe, complete. (6" dia) 150mm.	M	30.00		
4	23-11-b-V	Installing P.V.C. Bail/End plug, in tubewell bore hole:- (4" dia). (100 mm)	Each	1.00		
5	23-8-b-v	Installing, P.V.C. strainer B.S.S. Class 'D' in tube well bore hole, including sockets and solvents, etc. complete . 4" dia (100mm).	M	10.00		
6	23-13-A-ii	Installing P.V.C. blind pipe, B.S.S. Class 'B', in tubewell bore hole, including sockets and solvents and jointing with strainer, (PS-3051=BS-3505), etc. complete. (4" dia).	M	80.00		
7	N. S.	Taking of water samples (2 bottles each) at the end of the pumping test. Full chemical and bacteriological analysis, of water samples according to Pakistani standard.	Each	2.00		
8	23-17	Shrouding with graded pea gravel 3/8" - 1/8" '(10-3mm) around tube well in bore hole.	Cum	0.638		
9	23-16	Testing and developing of tube well of size 6" (150mm) i/d and above continuous Upto 1.5 cusecs Discharge.	Per Hour	12.00		
		Total Amount				

PUNJAB SAAF PANI AUTHORITY						
Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division						
BILL OF QUANTITIES						
Construction of Bore Holes (DG Khan)						
Sr. No.	MRS Ref. #	Description of items	Unit	Qty	Rate	Total Amount (Rs)
1	23-1-1-d	Boring for tubewell in all types of soil except shingle and rock, from ground level to 100 ft. (30 m) depth, including sinking and withdrawing of casing pipe, complete. (6" dia) 150mm.	M	30.00		
2	23-1-2-b	Boring for tubewell in all types of soil except shingle, gravel & rock, from a depth of 100.1 ft. to 200 ft (30 to 60 m) below ground level, including sinking and withdrawing of casing pipe, complete. (6" dia) 150mm.	M	30.00		
3	23-1-3-b	Boring for tubewell in all types of soil except shingle, gravel & rock, from a depth of 200.1 ft. to 300 ft (90 to 90 m) below ground level, including sinking and withdrawing of casing pipe, complete. (6" dia) 150mm.	M	30.00		
4	23-11-b-V	Installing P.V.C. Bail/End plug, in tubewell bore hole:- (4" dia). (100 mm)	Each	1.00		
5	23-8-b-v	Installing, P.V.C. strainer B.S.S. Class 'D' in tube well bore hole, including sockets and solvents, etc. complete . 4" dia (100mm).	M	10.00		
6	23-13-A-ii	Installing P.V.C. blind pipe, B.S.S. Class 'B', in tubewell bore hole, including sockets and solvents and jointing with strainer, (PS-3051=BS-3505), etc. complete. (4" dia).	M	80.00		
7	N. S.	Taking of water samples (2 bottles each) at the end of the pumping test. Full chemical and bacteriological analysis, of water samples according to Pakistani standard.	Each	2.00		
8	23-17	Shrouding with graded pea gravel 3/8" - 1/8" '(10-3mm) around tube well in bore hole.	Cum	0.638		
9	23-16	Testing and developing of tube well of size 6" (150mm) i/d and above continuous Upto 1.5 cusecs Discharge.	Per Hour	12.00		
		Total Amount				

PUNJAB SAAF PANI AUTHORITY						
Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division						
SOLAR PV SYSTEM						
ELECTRICAL WORKS						
BILL OF QUANTITIES						
Solar PV Solution For 2000 LPH RO Plant (MLN BWP & DG Khan)						
Sr. No.	Item	Description	Unit	Qty.	Rate (Rs.)	Total Cost (Rs.)
1	Solar PV Modules	· IEC 61215 Certified	Per Watt STC	10,000		
		· Application/ Safety Class II				
		· A Grade, Half Cut Cell Mono-PERC				
		· Tier 1 Manufacturer for Q3/Q4 of 2021				
		· 500W or higher with positive tolerance only				
		· 20% or higher module efficiency				
		· 25 Year Linear Performance Warranty				
		· 12 Year Material and Workmanship Warranty				
		· Power Output after 25 Years $\geq 85\%$				
		· PID Resistant				
		· Power Loss Coefficient of $-0.39\%/^{\circ}\text{C}$ or lesser				
		· Barcode Identification				
		· Efficiency at $200 \text{ W/m}^2 \geq 96\%$ of STC				
		- IP 65 Rated Junction Boxes, dust and vermin proof with Copper Bus Bar Terminals, EPDM rubber gasket, MOVs and Reverse Blocking Diodes				
		· Compliance with S.R.O 604				
2	Mounting Structure, Civil Works and Foundations etc.	- UV resistant, Galvanized Steel Frame of Gauge 12 with atleast 85 micron or thicker zinc coating	Per Watt Solar Panel	10,000		
		- Tilt: 25° or As per site requirement				
		- Anodized Aluminum Frames if proposed shall be preferred				
		- Spacing between rows should be more than 1.5 times the height of mounting structure				
		- Shall Withstand Wind speed of 150 km/h				
		- Galvanic Isolation				
		- Site Specific Design				
		- For Rooftops, Civil Works without Roof Penetrations				
		- Complete Civil Works				

3	VFD and Associated Sensors	- Power Options for Grid, Generator and Solar PV - Auto Start Stop with Any Input Power - Self Diagnostic and Self Protection · Dry Run Protection · Digital Controls with Complete Protective Functions · IP65 · Ground Fault Monitoring · AC Short Circuit Protection · Under/Over Voltage and Over Current Protection · Reverse current Blocking · -10 to +40 Degree Celcius · Remote Monitoring and MPPT · Water Level Detection - Pressure Level Detection · AC and DC Rated Voltage matching with the motor	Per Watt VFD	10,000	
4	DC Cables, AC Cables, Earthing Wires, Conduits, Connectors, Cable Ties etc.	DC and AC Cables: - 99.99% Copper Cables - Shall be sized such that 30% spare capacity remains at operating temperatures of 90 °C - UL 4703 compliant Low Smoke Halogen Free - BS 6004 and BS 7644 Compliant - Conduits shall have 30% or higher spare capacity - Trenching and all Civil Works - Seamless Terminations - Perforated Cable Trays - Avoid Direct Sunlight and Direct Clamping of Cables - Should not be physically accessible for routine works - Earthing and Lightning Protection as per Electricity Act of Pakistan - Labeling of all strings/ equipment shall be mandatory · UPVC/Corrugated PVC Pipes and Cable Trays		Job	
5	Breakers, Surge Arrester, Combiner Boxes etc.	· Circuit Breakers - Protection Devices · Separate DC and AC earthing each with 3 Ohms or lesser resistance · Non-Isolated Lightning Arrestors · Protection against lightning currents - IP 65 Rated Cabinets		Lot	
6	Transportation, Installation, Lab Testing and Commissioning	· Delivery, Installation and Testing of all equipment delivered against the P.O · Complete Works in all respects		Job	
				Total	
COST OF SOLAR FOR 1 RO PLANTS					

PUNJAB SAAF PANI AUTHORITY						
Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division						
BILL OF QUANTITIES						
Civil & Mechanical (Multan & Bahawalpur)						
Sr. No.	MRS Ref. #	Description of items	Qty	Unit	Rate	Total Amount (Rs)
1	7/5 i	Pacca brick work in ground floor:- Ratio (1:5)	1.129	Cum		
2	11/9-b	Cement plaster (1:4) upto 20'-0" hight ½" thick	57.39	Sqm		
3	4-50	Dismantling glazed or encaustic tiles, etc	20.745	Sqm		
4	10-23 i	Providing and laying superb quality Ceramic tile floors of Master/Stile brand or approved equivalent manufacturer of specified size,Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over ¾" thick (1;2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.	12.513	Sqm		
5	10-24 i	Providing and laying superb quality Ceramic tile dado of Master/Stile brand or approved equivalent manufacturer of specified size,Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over ½" thick (1;2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.	8.232	Sqm		
6	11/ 22+23-b	Distempering new surface 3 coats	52	Sqm		
7	9/20a	Cast iron rain water downpipe fixed in position, excluding heads and shoes, but including painting and clamps, etc:-	4.00	M		
8	13/5 d i & ii	Painting new surface:-Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards braces, etc.) and in similar open work Three Coats including priming coat.	20.724	Sqm		
9	19/27	Providing and fixing chromium plated bib cock:- ii) 1.5 cm (1/2").	6	Each		
10	19/8-iii Rep	Providing and fixing brass ball float valve: 2.5 cm (1") dia	2	Each		
11	23/14 b	Providing, laying, cutting, jointing, testing and disinfecting P.V.C. pipe line with 'B' Class working pressure pipe, in trenches, complete in all respects 4" i/d (100 mm):- as per drawing, specifications and approval of the Engineer.	7	M		

12	11/31.	<i>Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.</i>	36.24	Sqm		
13	24/3 ii) & iii)	Supply and erection of PVC pipe for wiring recessed in walls, floors, roofs including inspection boxes, pull boxes, hooks, cutting jharries, and repairing surface, etc., complete with all specials. i) 20 mm	41.2	Ft		
		ii) 25 mm	16.1	Ft		
14	24/14-a v)	Supply and erection of PVC insulated, PVC sheathed twin core, 250/440 volts copper conductor cables for service connection, in prelaid pipe/G.I. wire/trenches, etc. (rate for cable only):- i) 7/0.044"	23.4	Ft		
15	24/11 i), ii), iii) & vi)	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 250/440 volts grade cable (BSS-2004), in prelaid PVC pipes/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing and capping/trenches, etc. (rate for cable only):- i) 3/0.029"	52.4	Ft		
		ii) 3/0.036"	54.5	Ft		
		iii) 7/0.029"	35.4	Ft		
		vi) 7/0.064"	9.8	Ft		
16	NS	Supply and installation of 4" deep u-PVC concealed switch box for recessed wiring, including making holes for regulators, switches, plugs, etc.	2.00	No.		
17	24/41	Supply and erection of button holder (bakelite large size).	2.00	No.		
18	24/33	Supply and erection of switches 5 Amp Piano type	4.00	No.		
19	NS	Supply and erection of 2 Pin switch with socket.	1.00	No.		
20	NS	Branding of PSPA	1.00	Job		
21	NS	Repair of Doors and Windows along with installation of Neon Lights	1.00	Job		
22	NS	Installation & commisioning of Water Filtration Plants (with all aspect)	1.00	Job		

PUNJAB SAAF PANI AUTHORITY						
Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division						
BILL OF QUANTITIES						
Civil & Mechanical (DG Khan)						
Sr. No.	MRS Ref. #	Description of items	Qty	Unit	Rate	Total Amount (Rs)
1	7/5 i	Pacca brick work in ground floor:- Ratio (1:5)	1.129	Cum		
2	11/9-b	Cement plaster (1:4) upto 20'-0" hight ½" thick	57.39	Sqm		
3	4-50	Dismantling glazed or encaustic tiles, etc	20.745	Sqm		
4	10-23 i	Providing and laying superb quality Ceramic tile floors of Master/Stile brand or approved equivalent manufacturer of specified size,Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over ¾" thick (1;2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.	12.513	Sqm		
5	10-24 i	Providing and laying superb quality Ceramic tile dado of Master/Stile brand or approved equivalent manufacturer of specified size,Glossy/Matt/Texture of approved Color and Shade as per approved design with adhesive bond, over ½" thick (1;2) cement sand plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respects and as approved and directed by the Engineer Incharge.	8.232	Sqm		
6	11/ 22+23-b	Distempering new surface 3 coats	52	Sqm		
7	9/20a	Cast iron rain water downpipe fixed in position, excluding heads and shoes, but including painting and clamps, etc:-	4.00	M		
8	13/5 d i & ii	Painting new surface:-Preparing surface and painting guard bars, gates of iron bars, gratings, railing (including standards braces, etc.) and in similar open work Three Coats including priming coat.	20.724	Sqm		
9	19/27	Providing and fixing chromium plated bib cock:- ii) 1.5 cm (1/2").	6	Each		
10	19/8-iii Rep	Providing and fixing brass ball float valve: 2.5 cm (1") dia	2	Each		
11	23/14 b	Providing, laying, cutting, jointing, testing and disinfecting P.V.C. pipe line with 'B' Class working pressure pipe, in trenches, complete in all respects 4" i/d (100 mm):- as per drawing, specifications and approval of the Engineer.	7	M		

12	11/31.	<i>Extra cost of labour and material for red oxide pigment in cement pointing to match with the colour of bricks.</i>	36.24	Sqm		
13	24/3 ii) & iii)	Supply and erection of PVC pipe for wiring recessed in walls, floors, roofs including inspection boxes, pull boxes, hooks, cutting jharries, and repairing surface, etc., complete with all specials. i) 20 mm	41.2	Ft		
		ii) 25 mm	16.1	Ft		
14	24/14-a v)	Supply and erection of PVC insulated, PVC sheathed twin core, 250/440 volts copper conductor cables for service connection, in prelaid pipe/G.I. wire/trenches, etc. (rate for cable only):- i) 7/0.044"	23.4	Ft		
15	24/11 i), ii), iii) & vi)	Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 250/440 volts grade cable (BSS-2004), in prelaid PVC pipes/M.S. conduit/G.I. pipe/wooden strip batten/wooden casing and capping/trenches, etc. (rate for cable only):- i) 3/0.029"	52.4	Ft		
		ii) 3/0.036"	54.5	Ft		
		iii) 7/0.029"	35.4	Ft		
		vi) 7/0.064"	9.8	Ft		
16	NS	Supply and installation of 4" deep u-PVC concealed switch box for recessed wiring, including making holes for regulators, switches, plugs, etc.	2.00	No.		
17	24/41	Supply and erection of button holder (bakelite large size).	2.00	No.		
18	24/33	Supply and erection of switches 5 Amp Piano type	4.00	No.		
19	NS	Supply and erection of 2 Pin switch with socket.	1.00	No.		
20	NS	Branding of PSPA	1.00	Job		
21	NS	Repair of Doors and Windows along with installation of Neon Lights	1.00	Job		
22	NS	Installation & commisioning of Water Filtration Plants (with all aspect)	1.00	Job		

PUNJAB SAAF PANI AUTHORITY						
Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division						
BILL OF QUANTITIES						
Construction of Injection Well (MLN & BWP)						
Sr. No.	MRS	Description of items	Unit	Qty	Rate	Total Amount (Rs)
1	23-1-d	Boring for tubewell in all types of soil except shingle and rock, from ground level to 100 ft. (30 m) depth, including sinking and withdrawing of casing pipe, complete:- (6" dia) 150mm				
			M	30.00		
2	23-2-b	Boring for tubewell in all types of soil except shingle, gravel & rock, from a depth of 100.1 ft. to 200 ft (30 to 60 m) below ground level, including sinking and withdrawing of casing pipe, complete:- (6" dia) 150mm				
			M	30.00		
3	23-3-b	Boring for tubewell in all types of soil except shingle, gravel & rock, from a depth of 200.1 ft. to 300 ft (60 to 90 m) below ground level, including sinking and withdrawing of casing pipe, complete:- (6" dia) 150mm				
			M	40.00		
4	23-15-b-v	Providing and installing P.V.C. Bail/End plug, in tubewell bore hole:- (4" dia). (100 mm)				
			Each	1.00		
5	23-12-e	Providing and installing, P.V.C. strainer B.S.S. Class 'D' in tubewell bore hole, including sockets and solvents, etc. complete . 4" dia (100mm).				
			M	16.00		
6	23-13-b-v	Providing and installing P.V.C. blind pipe, B.S.S. Class 'D', in tubewell bore hole, including sockets and solvents and jointing with strainer, etc. complete (4" dia)				
			M	74.00		
7	N.S	Supply & installation of 1/2" i/d thick M.S Cap for 4" housing pipe joint by means of welding & hinges with lock & locking arrangements.				
			Each	1		
TOTAL COST						

PUNJAB SAAF PANI AUTHORITY						
Replacement of Technology (from MF to RO) at 15 No. Water Filtration Plants in Multan, Bahawalpur & DG Khan Division						
BILL OF QUANTITIES						
Construction of Injection Well (DG Khan)						
Sr. No.	MRS	Description of items	Unit	Qty	Rate	Total Amount (Rs)
1	23-1-d	Boring for tubewell in all types of soil except shingle and rock, from ground level to 100 ft. (30 m) depth, including sinking and withdrawing of casing pipe, complete:- (6" dia) 150mm				
			M	30.00		
2	23-2-b	Boring for tubewell in all types of soil except shingle, gravel & rock, from a depth of 100.1 ft. to 200 ft (30 to 60 m) below ground level, including sinking and withdrawing of casing pipe, complete:- (6" dia) 150mm				
			M	30.00		
3	23-3-b	Boring for tubewell in all types of soil except shingle, gravel & rock, from a depth of 200.1 ft. to 300 ft (60 to 90 m) below ground level, including sinking and withdrawing of casing pipe, complete:- (6" dia) 150mm				
			M	40.00		
4	23-15-b-v	Providing and installing P.V.C. Bail/End plug, in tubewell bore hole:- (4" dia). (100 mm)				
			Each	1.00		
5	23-12-e	Providing and installing, P.V.C. strainer B.S.S. Class 'D' in tubewell bore hole, including sockets and solvents, etc. complete . 4" dia (100mm).				
			M	16.00		
6	23-13-b-v	Providing and installing P.V.C. blind pipe, B.S.S. Class 'D', in tubewell bore hole, including sockets and solvents and jointing with strainer, etc. complete (4" dia)				
			M	74.00		
7	N.S	Supply & installation of 1/2" i/d thick M.S Cap for 4" housing pipe joint by means of welding & hinges with lock & locking arrangements.				
			Each	1		
TOTAL COST						

REPLACEMENT OF TECHNOLOGY (FROM MF TO RO) AT 15 NO. WATER FILTRATION PLANTS IN MULTAN, BAHAWALPUR & DG KHAN DIVISION.

Sr. No.	District	Tehsil	Site Name
1	Rajanpur	Rajanpur	Basti Leshari
2	DG Khan	DG Khan	Nau Abad
3	Muzaffargarh	Muzaffargarh	Gulmani Adda
4	Layyah	Layyah	Mohsin Shah
5	Lodhran	Dunyapur	362/WB
6	Lodhran	Dunyapur	366/WB
7	Lodhran	Dunyapur	Jallah Arain
8	Lodhran	Dunyapur	342/WB
9	Lodhran	Dunyapur	319/WB
10	Lodhran	Dunyapur	321/WB
11	Lodhran	Dunyapur	327/WB
12	Lodhran	Dunyapur	269/WB
13	Bahawalpur	Bahawalpur	Utera
14	Bahawalnagar	Minchabad	Behkan Wala
15	Bahawalnagar	Minchabad	Break utar



Assistant Manager (South Zone)
Punjab Saaf Pani Authority



Deputy Manager (South Zone)
Punjab Saaf Pani Authority