



**Shri Mata Vaishno Devi Shrine Board**

**Tender Document**

**for**

Survey, Design, Supply, Installation, Commissioning, Testing, Operation and Maintenance (Five years) of 02 Nos Standalone Effluent Treatment Plant of 10 KLD Capacity one each complete in all respects at Saraswati Dham, Jammu & Trikuta Bhawan, Katra to treat the Laundry Waste.

**e-NIT No. CO/SW/ETP/157/02 of 2024 Dated: 07.03.2024**

**Last Date for submission of Tender : 20.03.2024 at 02:00PM**

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Address: Central Office, Shri Mata Vaishno Devi Shrine Board, Katra (J&K) – 182301

Ph.: 01991-232075 Fax: 1991-232120,

Website: [www.maavaishnodevi.org](http://www.maavaishnodevi.org)

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**OFFICE OF THE CHIEF EXECUTIVE OFFICER**  
**SHRI MATA VAISHNO DEVI SHRINE BOARD,**  
Central Office, Jammu Road, Katra (J&K) – 182301  
Fax: +91- 1991-232120 Tel.: +91-1991-232818

**Notice Inviting e-Tender**  
**e-NIT No. CO/SW/ETP/157/02 of 2024 Dated: 07.03.2024**

E-Tenders are invited, on behalf of Shri Mata Vaishno Devi Shrine Board, Katra through its Chief Executive Officer from the Proprietor firm / Companies/ Limited Liability Partnership (LLP) dealing in manufacturing of ETPs for **“Survey, Design, Supply, Installation, Testing, Operation and Maintenance and Commissioning of 10 KLD each capacity Effluent Treatment Plant based on Ultra-Filtration at Saraswati Dham, Jammu and Trikuta Bhawan, Katra”**.

| <b>S. No</b> | <b>Description of work</b>   | <b>Approx. cost of work (in Rs. )</b> | <b>Time of completion</b> | <b>Amount of CDR / FDR (in Rs. )</b> |
|--------------|--|---------------------------------------|---------------------------|--------------------------------------|
| 1            | Survey, Design, Supply, Installation, Commissioning, Testing, of Standalone Effluent Treatment Plant 02 Nos 10 KLD capacity complete in all respects to treat Laundry waste from the Saraswati Dham, Jammu and Trikuta Bhawan, Katra | <b>50.00 Lakh</b>                     | <b>120 days</b>           | <b>2.60 Lakh</b>                     |
| 2            | Operation and Maintenance (05 years) 02 Nos. Standalone Effluent Treatment Plant 10 KLD each of Saraswati Dham, Jammu and Trikuta Bhawan, Katra and its disposal based on proven eco friendly technology.                            | <b>80.00 Lakh</b>                     | <b>5 years</b>            |                                      |

The e-NIT consisting of Qualifying Information, Eligibility Criteria, Specifications, Bill of Quantities, (B.O.Q), set of Terms & Conditions of Contract and other details can be seen / downloaded from the departmental Website:- <http://jktenders.gov.in> & on SMVDSB website [www.maavaishnodevi.org](http://www.maavaishnodevi.org) as per following dates:

|   |  |
|---|--|
| Publishing Date                             | <b>07.03.2024 at 04:30 PM</b>          |
| Bib Download Start Date                     | <b>07.03.2024 at 05:00 PM</b>          |
| Pre Bid Conference                          | <b>12.03.2024 at 12:00PM</b>           |
| PPT Presentation for interested bidder      | <b>12.03.2024 at 12:00PM</b>           |
| Bib Submission Start Date                   | <b>14.03.2024 from 12:00PM onwards</b> |
| Bid submission End Date (Online)            | <b>20.03.2024 at 02:00PM</b>           |
| Submission of Hard Copy (end) date and time | <b>20.03.2024 at 05:00PM</b>           |
| Date of Opening of Technical Bid (Online)   | <b>21.03.2024 at 03:00PM</b>           |

The tender should be accompanied with an Earnest Money in the form of CDR / FDR amounting to Rs. 2.60 Lakh from any Nationalized / Scheduled Bank duly pledged to the FA / Chief Accounts Officer, Shri Mata Vaishno Devi Shrine Board, Katra and Tender Fee of Rs.1,000/- in the official account of Shri Mata Vaishno Devi Shrine Board Branch J&K Bank Katra, Account No. **0235040500001804, IFSC – JAKA0KATTRA**. The bidder shall mention UTR No. in the prescribed Technical Bid Form at **Schedule-A**. Complete bidding process will be done online on e-Tender portal [www.jktenders.gov.in](http://www.jktenders.gov.in) & [www.maavaishnodevi.org](http://www.maavaishnodevi.org). The tenders should be submitted strictly in accordance with the provisions of the detailed e-NIT.

**Sd/-**  
**Asstt. Conservator of Forest**  
**SMVD Shrine Board, Katra**

**Instruction to Bidders regarding e-Tendering process:**

1. The interested bidder can download the e-NIT / bidding document from the website [www.jktenders.gov.in](http://www.jktenders.gov.in) & [www.maavaishnodevi.org](http://www.maavaishnodevi.org).
2. To participate in bidding process, bidders have to get (DSC) "Digital Signature Certificate" as per information Technology Act-2000, to participate in online bidding. This certificate will be required for digitally signing the bid. Bidders can get above mentioned digital certificate from any approved vendors.
3. The Bidders, who already possess valid (DSC) Digital Signature Certificates, need not to procure new Digital Signature Certificate.
4. The bidders have to submit their bids online in electronic format with Digital Signature. The bids cannot be uploaded without Digital Signature. No Proposal will be accepted in physical form.
5. Bids will be opened online as per time schedule mentioned in the e-NIT.
6. Before submission of online bids, bidders must ensure that scanned copies of all the necessary documents have been attached with bid.
7. The SMVDSB will not be responsible for delay in online submission of bids whatsoever reasons may be.
8. All the required information for bid must be filled and submitted online.
9. Bidders must attach scanned copies of all documents & EMD as specified in the tender documents.
10. The details of cost of documents, EMD specified in the tender documents should be the same, as submitted online (scanned copies) otherwise bid will not be accepted.
11. Bidders are advised to use "My Documents" area in their user on <http://jktenders.gov.in>, e-tendering portal to store important documents like Balance sheet, GST Registration Certificate, Tax Clearance Certificate, IT certificate, and other related documents etc., and attach these certificates as Non-Statutory documents while submitting their bids.
12. Bidders are advised not to make any change in BOQ (Bill of Quantities) contents or its name. In no case they should attempt to create similar BOQ manually. The BOQ downloaded should be used for filling the item rate as prescribed and it should be saved with the same as it contains.
13. Bidders are advised to scan their documents at 100 DPI (Dots per Inch) resolutions with Black and White, PDF \ Scan properly.
14. The guidelines for submission of bid online can be downloaded from the website <http://www.jktenders.gov.in>. & [www.maavaishnodevi.org](http://www.maavaishnodevi.org).
15. The Tenderer(s) should carefully study the document and prepare his tender with consideration of all provisions of the document. He should fully acquaint himself / herself with site conditions and all other factors which may influence preparation of his tender.

**Sd/-**

**Asstt. Conservator of Forest  
SMVD Shrine Board, Katra**

**No:- CO/SW/ETP/157/8880-82**

**Dated: 07-03-2024**



**OFFICE OF THE CHIEF EXECUTIVE OFFICER  
SHRI MATA VAISHNO DEVI SHRINE BOARD**

Central Office, Jammu Road, Katra (J&K) – 182301

Fax: +91- 1991-232120 Tel.: +91-1991-232818

E-mail: [sanitation@maavaishnodevi.net](mailto:sanitation@maavaishnodevi.net), [acf@maavaishnodevi.net](mailto:acf@maavaishnodevi.net)

**e-NIT No. CO/SW/ETP/157/02 of 2024 Dated: 07.03.2024**

**SUBJECT:** Notice inviting E-Tender on the prescribed format duly affixed with Revenue Stamp worth Rupees Six only are invited on behalf of Chief Executive Officer Shri Mata Vaishno Devi Shrine Board from the Proprietor firm / Companies/ Limited Liability Partnership (LLP) dealing in manufacturing of ETPs for **Survey, Design, Supply, Installation, Testing, Operation and Maintenance and Commissioning of 10 KLD each capacity Effluent Treatment Plant based on Ultra-Filtration at Saraswati Dham, Jammu and Trikuta Bhawan, Katra**”.

1. **REQUIREMENT:**

For and on behalf of SMVDSB, through its CEO, SMVDSB, e-Tender affixed with e-Stamp under Two Bids System are invited from the Proprietor firm/ Companies/ Limited Liability Partnership (LLP) dealing in manufacturing of ETPs for “Survey, Design, Supply, Installation, Testing, Operation and Maintenance and Commissioning of 10 KLD each capacity Effluent Treatment Plant based on Ultra-Filtration at Saraswati Dham, Jammu and Trikuta Bhawan, Katra”. The detailed Tender Document with full description and Terms and Conditions is available at [www.jktenders.gov.in](http://www.jktenders.gov.in) & [www.maavaishnodevi.org](http://www.maavaishnodevi.org)

2. **TENDER SCHEDULE:**

|   |  |
|---|--|
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**Name of the Project:**

**Survey, Design, Supply, Installation, Testing, Operation and Maintenance and Commissioning of 10 KLD each capacity Effluent Treatment Plant based on Ultra-Filtration at Saraswati Dham, Jammu and Trikuta Bhawan, Katra” as per the latest guidelines of NGT/CPCBs.**

**3. ELIGIBILITY CRITERIA:**

- a. Bidder must be an approved manufacturer/ supplier of Effluent Treatment Plants(s) duly registered under the Companies Act, 1956 and must be having an experience of at least 03 years in the field of ETPs. The bidder should be an ISO 9001 certified, BIS recognized in designing and execution of ETPs with its own in house quality plants
- b. Bidder must be income tax payee and shall submit attested copies of the Income Tax Returns / Income Tax Assessment Order for the last three financial years 2020-21, 2021-22 and 2022-23. Bidder shall also submit proof of PAN & GST.
- c. Bidder must have an average turnover of at least Rs.80.00 lakh during the last three financial years i.e. 2020-21, 2021-22 and 2022-23. Attested copies of audited balance sheets and profit and loss of account for the last three financial years i.e. 2020-21, 2021-22 and 2022-23 (Attested copies of audited balance sheets and profit and loss of account for the last three financial year be attached).
- d. The bidder must have sound financial background and a positive net-worth of at least Rs. 40.00 Lakh each year continuously for the last three financial years 2020-21, 2021-22 and 2022-23.
- e. The bidder must have carried out design, supply, installation, testing and commissioning of Effluent Treatment Plant of at least 10 KLD or more capacity or more during the last three years viz. 2020-21, 2021-22 and 2022-23.
- f. The bidder must enclose undertaking on the letter head of the company that the bidder has never been black listed or punished by any court for any criminal offence/breach of contract and no police/vigilance enquiry/criminal case is pending against him or company/agency as the case may be.
- g. Any Government body in India should not have blacklisted the Bidder/OEM/its subsidiary, dealing in similar products

**h. PROCEDURE FOR SUBMISSION OF TENDER:**

Bidders are invited to submit Bids for “**e-Notice Inviting Tender (e-NIT) for Survey, Design, Supply, Installation, Testing, Operation and Maintenance and Commissioning of 10 KLD each capacity Effluent Treatment Plant based on Ultra-Filtration at Saraswati Dham, Jammu and Trikuta Bhawan, Katra”** in two parts viz. Technical Bid (**Schedule-A**) and Financial Bid (**refers to BoQ Online only**) as per enclosed proforma along with supporting documents, application fee, EMD etc. The bidders are required to submit their bid under 2 bids system with Cover-I (Technical Bid) and Cover-II (Price Bid).

**A. Cover-I (Technical Bid)**

**(This cover shall contain): -**

- (i) **Schedule-‘A’** form duly filled in along with relevant documentary proofs.
- (ii) Scanned copies of EMD in shape of CDR / FDR pledged to Chief Accounts Officer, SMVDSB.
- (iii) Tender Fee of **Rs.1,000/-** shall be deposited in the official account of Shri Mata Vaishno Devi Shrine Board, Branch J&K Bank Katra, Account No. **0235040500001804, IFSC – JAKA0KATTRA (in IFSC Code JAK0KATTRA – 0 stands Zero)**. The bidder shall mention UTR No. in the prescribed Technical Bid Form at **Schedule-‘A’**
- (iv) Tender Document containing Instructions, **Terms and Conditions** **duly signed** on each leaf by the Tenderer, along with documentary proof wherever required.

**B. Cover II (Price Bids):**

- (i) Price bid shall contain price quoted for each work separately as per BoQ & has to be submitted **online** in the form of BoQ only.
- (ii) The price bid should be absolute and unconditional.
- (iii) Conditional bids shall be rejected.
- (iv) The price bid shall be opened in favour of bidders who qualify in the technical bid. Rates are required to be quoted strictly as per prescribed BoQ / item of works.
- (v) Price bids not conforming to above standards or suffering from any flaw shall be rejected.

**Note:** The bidder shall upload and submit the original instruments in respect of cost of documents, EMD and other relevant documents by or before specified date in the **Tender Schedule** in the office of the Asstt. Conservator of Forest, SMVDSB alongwith Technical Bid. e-Tender will not be accepted without hardcopies of the Tender fee receipt and EMD.

**4. SELECTION CRITERIA:**

All bidders shall submit documentary proof in support of meeting eligibility criteria. In the first stage of evaluation, Proposals shall be rejected, if found deficient as per the requirements of Tender / Bid Processing Fee and other eligibility criteria. Only bids confirming the e-NIT conditions shall be further taken up for evaluation. Evaluation of the technical Bid will start first. The bidder qualifying the technical bid shall only be admitted in process of financial bid evaluation. The participating bidder's criteria eligibility shall be evaluated on the basis of points to be obtained in the point matrix.

**A. Technical & Pre-Qualification Points:**

| <b>S No</b>        | <b>Description</b>  | <b>Particulars</b> | <b>Max Points</b> | <b>Document detail required (duly attested by the bidder)</b>               |
|--------------------|---|--------------------|-------------------|---|
| 1                  | Design, Supply, Installation, Testing and Commissioning of minimum 10 KLD or more capacity of Effluent Treatment Plant contracts executed under execution over the last 03 years (2020 onwards) | > 5 contracts      | 10                | Relevant copies of work orders  |
|                    |   | 3-5 contracts      | 7                 |   |
|                    |   | upto 2 contracts   | 5                 |   |
| 2                  | <b>Cumulative turnover</b> for last 03 FY viz. 2020-21, 2021-22 and 2022-23   | >5 Crore           | 10                | Audited balance sheet for the last three years 2020-21, 2021-22 and 2022-23 |
|                    |   | 3 - 5 Crore        | 7                 |   |
|                    |   | <2.4 - 3 Crore     | 5                 |   |
| 3                  | <b>Cumulative net-worth</b> for last 03 FY viz. 2020-21, 2021-22 and 2022-23  | >3 Crore           | 10                |   |
|                    |   | 1.5 - 3 Crore      | 7                 |   |
|                    |   | <1.2 - 1.5Crore    | 5                 |   |
| 5                  | Experience of executing Operation and Maintenance of ETPs (Not less than 03 years)  | > 07 years         | 10                | List of works executed (year wise)  |
|                    |   | 05-07 years        | 7                 |   |
|                    |   | 03-05 years        | 5                 |   |
| 6                  | Profile Presentation ( Methodology Work plane any prestigious award ETC)  |                    | 20                |   |
| <b>Total Score</b> |   |                    | <b>60</b>         |   |

**B. Technical & Financial Bid Evaluation criteria:**

- i. For qualifying in the technical bid, bidder shall have to score minimum 40 points out of 60 as mentioned in the above point matrix table. Any bidder failing to obtain the minimum qualifying score, the technical bid shall not be admitted in financial bid opening process.
- ii. Financial bids of the technically qualified bidders shall be opened and the bidder emerging L-1 bidder shall be considered for the allotment of the



contract. In-case of the tie in rates, revised sealed bid can be obtained on the spot and the bidder offering lowest rates shall be considered for the allotment of the contract. In-case of tie in the second instance as well, the bidder scoring more in the technical bid evaluation process shall be considered for the allotment of the contract. In-case of tie at third instance, it shall be decided by the process of “draw of lots”.

- iii. The Shrine Board reserve the right to negotiate the quoted rates, terms & conditions with the lowest tenderer or any of the other tenderers on quality basis to ascertain the suitability of the acceptance offer

5. **PRE-BID CONFERENCE:**

A pre-bid conference will be held on 12.01.2024 at 12:30 PM at Conference Hall, Central Office, SMVDSB, Katra and the successful bidder shall display its power point presentation regarding to the ibid work. It is advised that after Pre-bid meeting, the bidder shall visit the site to acquaint themselves with the prevailing condition and other facilities available nearby. Conceptual understanding / layouts of area whichever possible will be provided to bidders during pre-bid meeting. Shrine Board reserves the right to modify the terms & conditions of e-NIT after the pre-bid conference in view of any practical modalities which may emerge during the pre-bid meeting.

6. **General conditions:**

- a) That work allotted to the successful bidder shall be for a period of five years commencing from the date of issuance of LoA. The successful bidder shall have to enter into agreement with Shri Mata Vaishno Devi Shrine Board, Katra within a period of 15 days from the issuance of LoA.
- b) The Chief Executive Officer, SMVDSB reserves the right to accept or reject any one or all the tenders without assigning any reason thereof.
- c) The successful bidder shall have to make payment on account of any loss / damage caused to the property of the Shrine Board by his workers intentionally or un-intentionally, failing which the same shall be recovered from his due payment / Security Deposit of bidder.
- d) That successful bidder shall provide its workforce in decent uniforms viz. shirt / trouser / shoes / suit and with identification badges at its own cost. The successful bidder shall ensure that the staff deployed is properly, cleanly and neatly dressed and they shall be disciplined and polite to the Yatries and the staff of the Shrine Board at all times. The personnel provided by the successful bidder shall be of good character, physically fit, efficient and skillful in their duties. **The successful bidder shall furnish medical fitness certificates issued by the competent authority, of the manpower engaged within 60 days from the issuance of Letter of Award and subsequently furnish the same on half yearly basis**
- e) That the successful bidder shall have to deposit EMD in the form of CDR / FDR / TDR pledged to Chief Accounts Officer, SMVDSB along-with the tender document.

- f) The Successful bidder shall deposit an amount equals to the 10% of the offered bid as Security Deposit before signing the agreement in the shape of CDR /FDR / TDR pledged to Chief Accounts Officer, SMVDSB, Katra. The EMD of the Successful bidder shall be returned subsequently within a period of 15 days after submission of Security Deposit.
- g) The Security Deposit shall be forfeited if the successful bidder prematurely withdraws or if the services are terminated for being unsatisfactory.
- h) The successful bidder shall be under obligation to credit the salary to its employees into their respective bank accounts only for the preceding month by or before 03<sup>rd</sup> of every successive month, failing which penalty @1% of the monthly bill shall be imposed. Further, the successful bidder shall submit a certificate every month along with the bills raised certifying compliance of this Clause.
- i) The leave arrangement, as and when required, shall have to be made by the successful bidder only and there shall be no additional liability to Shrine Board in this regard. However, in the event of additional manpower required in a particular shift, the same shall be arranged within the total existing manpower. The successful bidder shall refrain from engaging a particular employee for more than one shift in a day.
- j) The successful bidder shall be exclusively responsible for meeting requirements of Labour Laws, the charges for leave arrangements, expenditure on uniforms, insurance, EPF/PF/CPF etc. Any amount of claim / compensation on this account, as may be payable, shall be the liability to the successful bidder solely and Shrine Board shall in no way be responsible for any act of omission or commission of the successful bidder with regard to the violation of labour laws or any other law for the time being in force.
- k) The successful bidder shall fully comply with all applicable laws, rules and regulation relating to EPF/PF/CPF Act, minimum wages Act, Contract Labour Act, Workmen's Compensation Act and such other Acts or Laws, Regulations passed by Central, State and Local Govt. Agency or Authority from time to time.
- l) The successful bidder shall have to abide by all laws of the land including Minimum Wages Act, Labour Laws, Companies Act, tax deduction liabilities, welfare measure of its workers and all other obligations, and any such acts that are not essentially enumerated and defined herein.
- m) That the successful bidder shall solely be liable for any costs, charges or expenses arising out of any claims or legal proceedings in connection with or relating to its operation / activities under this agreement. The successful bidder shall be liable to indemnify and keep indemnified the SMVD Shrine Board against any damages, compensation, costs, charges or expenses arising out of any claims or proceedings relating to its operations / activities.
- n) That the successful bidder shall continuously maintain adequate protection of all the materials and equipment from damages, destruction or loss and shall also protect the property of the SMVD Shrine Board from any damage.

- o) That if it is observed during bidding process/bids evaluation stage that a bidder has indulged in corrupt/fraudulent/collusive/coercive practice, the bid of such Bidder(s) shall be rejected and its Earnest Money Deposit (EMD) shall be forfeited. Further, such agency shall be debarred for future business with Shrine Board for a period of next five years.
- p) That the successful bidder shall ensure that its employees / workforce maintain the sanctity of Shrine and shall not indulge in any activity which is prejudicial to the interest of the Holy Shrine. **Staff of the successful bidder shall not indulge in smoking or consumption of liquor/alcohol or consumption of any non- vegetarian food articles.** They shall maintain proper decorum and discipline, and ensure proper conduct in speech and dress. They shall also refrain from any other activity which might hurt the sentiments of pilgrims.
- q) At the time of execution of agreement, the successful bidder shall submit list of employees to be engaged for the above mentioned works and only those employees will be allowed to perform in the above mentioned works.
- r) The successful bidder shall submit Police verification report of manpower engaged at above mentioned works within 60 days from the date of issuance of Letter of Award. In case of failure to furnish the same within stipulated period, penalty as per Clause – 17 (C) (5) shall be imposed and same shall be deducted from the monthly bill of the successful bidder.
- s) Each worker must possess and carry Aadhar Card at all times.
- t) The successful bidder is under obligation to make alternate arrangements immediately, in case its employees go on strike. If such arrangements are not made by the successful bidder, a penalty of **Rs. 10,000/-** per day for first instance, **Rs. 50,000/-** per day for second instance and in case of third instance the contract is liable to be terminated without notice and the security deposit / EMD shall be forfeited. Further, work shall be carried on the risk and responsibility of the successful bidder.
- u) Staff must maintain & ensure utmost personal hygiene & etiquette and manners, especially the followings:
1. Staffs to have regular haircuts and nicely combed.
  2. Do not smoke before beginning and during the shifts.
  3. Nails should be kept short & clean.
  4. Hands must be free of stains and skins break. Cut & burns must be covered with the proper dressings and not be left exposed. Wash hands with soaps after using toilet or after eating or handling refuse.
  5. Uniform should be cleaned, laundered & ironed. Change uniform regularly. Uniform should not be worn outside the working premises and when not on duty.
  6. Shoes must be kept clean and free of stains. No sandals / chappal be allowed.
  7. All the workers of the successful bidder shall maintain highest standards of 'Etiquette and Manners' while talking / interacting to yatries and Shrine Board's Staff.

- v) After verification of antecedents, badges will be issued to them by the successful bidder or his representative. The cost of badges would be borne by the successful bidder.
- w) The successful bidder shall be responsible for behavior and conduct of his workers. No workman with doubtful integrity of having bad record shall be engaged by the successful bidder.
- x) No payment shall be made to the successful bidder for any damage caused by any natural calamity, whatsoever during the execution of the work. The successful bidder shall be fully responsible for any damage to the SMVDSB Property; any loss caused shall be recovered from the bills of the successful bidder.
- y) Labour huts/stay of workmen will not be allowed at site.
- z) The successful bidder shall have to ensure that information provided to it as part of this contract / agreement shall be kept confidential, secure and protected.
- aa) The Shrine Board shall not be bound to accept the lowest or any Tender and reserves to itself the right of accepting / rejecting the whole or a portion of any of the Tender, as it may deem fit, without assigning any reason thereof.
- bb) The successful Bidder shall take necessary accidental insurance cover for the workers under Employee's Compensation Act. Manpower engaged by the successful Bidder should be covered under Employees State Insurance Corporation making statutory contribution under ESIC Act as per Govt. Laws.
- cc) The successful Bidder shall comply with the provisions of the Apprentices Act, 1961, Minimum Wages Act, 1948, PF/Gratuity Act, Employee's Compensation Act, 1923, Contract labour (Regulation and Abolition) Act, 1970, Payment of Wages Act, 1936, Employers Liability Act, 1938 and Industrial Disputes Act, 1947 etc as may be applicable, and the rules and regulations made there under from time to time. Failure to do so shall amount to breach of the Contract and the Tendering authority may, at its own discretion, terminate the contract. The successful bidder shall also be liable for any pecuniary liability arising on account of violation by him of the provisions of the Act.
- dd) Lockable storage space shall be provided to the successful bidder by the Unit Incharge, subject to availability. Non-availability of lockable storage space due to any reasons shall not relieve the successful bidder to adhering their contractual obligations in any way. However, the successful bidder shall be responsible for security and safe custody of machinery/equipments installed at ETP.
- ee) Dismantled / replaced parts should be handed over to Shrine Board's Engineer-In-charge or to his subordinate staff under proper receipt.
- ff) Engineer-in-Charge / officer deputed by SMVDSB have the right to conduct a technical audit of the plant and to perform any random analysis/ laboratory test or inspection as deems necessary. The expenditure incurred for conduct of laboratory test if any shall be borne by the successful bidder and same shall be deducted from the monthly payment done in favour of successful bidder.

- gg) The Parties who are filing GST return on quarterly basis are required to file IFF return on monthly basis so that Shrine Board can claim input.
- hh) All bidders shall submit documentary proof in support of eligibility criteria. In the first stage of evaluation, proposal shall be rejected, if it is found deficient as per the requirements of Tender Fee/ Bid Processing Fee/ eligibility for responsiveness of the proposal. Evaluation of the technical Bid will start first and at this stage the financial bid (proposal) will remain unopened. Only the Financial bids of technically eligible & qualified bidders shall be opened.
- ii) The Bidders should go through the technical details mentioned in **Schedule – A** and stick to the specifications mentioned therein while quoting the rates. The rate quoted by the bidder should include all incidental expenditure such as transportation of the Standalone Effluent Treatment Plant to the site insurance including transit insurance, civil works at site of installation of ETP(s), Plumbing Works, and Pumping of the treated water to the overhead tank provided on the Rooftop of Toilet Blocks or any nearby building / available space as suggested by SB authority.
- jj) The rate quoted should be inclusive of all taxes including GST. Rates mentioned in the quotations should be in Indian Rupees. All costs of importing any components will be the responsibility of the Bidders.
- kk) All materials shall be of the **BIS/IS** approved quality, new and unused and be capable of satisfactory operation when exposed to the local atmospheric conditions.
- ll) Bidder should be **ISO Certified Company**. Preference will be given if bidder should have own lab setup.
- mm) Conditional, illegible, ambiguous tender(s) received after the stipulated date and time shall be out rightly rejected.
- nn) The tenderer shall be completely responsible for the design of all components, structural details & supervision of the civil works including labor & material, Supply, Installation, Testing of the Mechanical, Electrical pipes, Fittings & other accessories.
- oo) Work under this contract is time-bound and has to be completed within the time limit set in the tender. Work shall be executed in accordance with an agreed schedule within the overall time frame.
- pp) The Shrine Board reserves the right to order additional quantity or reduce the quantity of the material advertised at the time of placement of order for which the quoted rates shall be valid.
- qq) All materials shall be of the Government approved quality, new and unused and be capable of satisfactory operation when exposed to the local atmospheric conditions.
- rr) The Tenderer is required to submit a statement of facts in details as to their previous experience in performing a similar or comparable work and business and technical organization, financial resources and manufacturing facilities available and to be used in performing the contract.

7. **Specific Conditions:**

- a) The Standalone ETPs shall be installed preferably above the ground. If space availability is a constraint then the ETP may need to be constructed in multiple levels. Proper arrangements for ventilation/ exhaust/passage have to be provided accordingly in the construction plant.
- b) It is proposed to utilize the entire treated effluent for “**cisterns of toilet blocks and for maintenance of parks & gardens or fire hydrant tanks for wild/buildings fire protection**”. Therefore the system components have to be provided accordingly to ensure clear, transparent & odour-less discharge.
- c) For sludge handling, a proper sludge handling network/centrifuge shall be provided, and it is recommended to collect the de-watered compressed sludge into HDPE bags for disposal to the final destination as per the approval of the Pollution Authorities. The **sludge handling** shall be in the scope of successful bidder.
- d) **Disposal of Solid Waste:** The disposal of all solid waste including from sludge handling network as generated from the ETP during construction, commissioning, and O & M shall be the responsibility of the contractor. The solid waste shall be disposed off in accordance with the CPCB/JKPCC Norms to the site identified by the Engineer-In-charge. Loading, unloading, transportation of solid waste shall be in the contractor's scope.
- e) The tenderer may have to provide an acoustic enclosure for ETP(s) and shall ensure no foul smell or noise occurs during the operation or in its idle state.

8. **Scope of Work for Tenderer:**

**Survey, Design, Supply, Installation, Testing & Commissioning:**

- a) Planning and designing of the Standalone Effluent Treatment Plant as per latest standards laid down by Government of India, State Govt. and BIS standards by considering additional factors in the selection of an appropriate site specific wastewater collection system, including topography and sensitive natural resources, depth to bedrock or groundwater (ii) Feasibility of cluster treatment.
- b) Key consideration should be (i) innovative green technology (ii) cost effectiveness, (iii) operating and maintenance costs optimization.
- c) Tenderer shall provide the architectural and structural drawings/working drawings of complete piping route/plan, MOC and other plumbing work at the site of ETP for approval by Unit In-charge, SMVDSB.
- d) All RCC and masonry works related to effluent treatment plant and related foundation works for electrical and mechanical equipment shall be executed by the Contractor itself, as per the drawings approved by Shrine Board.
- e) Execution of works includes all **Civil, Electrical, Mechanical, Civil Designing & Drawing**, Plumbing processing equipments for pumping of treated water to the overhead tank on the Rooftop of identified Toilet Blocks or other purpose as per the requirement of treated water in consultation with Engineer-in-charge (**refer Annexure-III to VII**).
- f) Any other allied work required for the functioning of the treatment plant conforming to the Statutory Acts, Rules, Standards etc.
- g) Overall design factor for individual elements shall be as per the Manual of Sewerage, Govt. of India, New Delhi.

- h) All works shall be planned, designed and executed based on latest IS codes of practice and other relevant codes applicable to civil/electrical/mechanical/plumbing works.
- i) The sludge will be handled properly so that the cakes are formed to be used as manure by installing mechanical sludge handling/beds.
- j) The agency will provide tests reports on the parameters mentioned in 11 (A, B,C & D) table from authorized CPCB/JKPCC monthly and any time when desired by Monitoring/ Inspecting Officer.
- k) The tenderer shall make necessary plumbing arrangement for reuse of treated water in the **cisterns of toilet blocks or for maintenance of parks & gardens or storage in fire hydrant tanks for wild/buildings fire protection** and the plumbing fittings to be used must comply with ISI Standards and should be fire retardant. All measures should be taken, such as necessary insulation of piping network vulnerable to freezing in harsh winters.

9. **Scope of Shrine Board:**

- a) The site for Standalone Effluent Treatment Plants at identified locations shall be identified by the Engineer-In-charge in consultation with tenderer.
- b) Electricity and water bills shall be borne by the Shrine Board. However, bidder shall ensure energy efficient devices at the site for reduced consumption.
- c) The Shrine Board shall have power to make any alteration, omissions, additions to or substitutions for the original specifications, drawings, designs and instructions that may appear to be necessary, advisable during the progress of work, and the contractor shall be bound to carry out the work in accordance with any instruction which may be given to him in writing, signed by the Engineer-In-charge. Such alteration, addition or substitution shall not invalidate the contract and any altered, additional or substituted work shall be carried out by the tenderer on the same conditions in all respects on which he agreed to do the main work and at the same rate as are specified in tender for the main work. The time of completion of the work shall be extended on in the proportion that the altered, additional or substituted work bears to the original contract work and the certificate of the Unit/Engineer In-Charge shall be conclusive as to such proportion.
- d) Periodic/random testing of the influent/effluent to check the compliance as per CPCB parameters from any of the recognized laboratories/agencies if required.
- e) Accommodation for supervisor and operators shall be provided by Shrine Board on payment basis.

10. **Designing of Civil work**

- a) Civil structures of the Effluent Treatment Plant shall have to be designed for the total flow from the laundry plants installed at Katra and Jammu.
- b) Cost of structural design and drawings for civil works shall be included in the quoted price of work.
- c) The tenderer have to provide Architectural and working drawings of fencing around the treatment plant, entry gate, storm water outlets, Rain Protection Canopies on Electrical Devices, all manholes, vent pipes, railings & supports as required.
- d) The tenderer shall be required to execute as a part of scope of work, any other item not specified above or indicated in the tender but essentially

required for satisfactory and desired functioning of the plant. Without restricting to the generality of the foregoing, the work shall consist of Civil, Mechanical, Electrical & Piping work to be executed during the installation upto completion of ETP.

- e) The Bidder shall design structure in such a way that there will be provisions for linking / connecting other septic tanks taking into account the futuristic needs.

11. **Scope of Work of the Successful Bidder for Comprehensive Annual Operation & Maintenance:**

- The Bidder shall be responsible for 24x7 Operation and Maintenance for the period of 05 years of Standalone Effluent Treatment Plant(s) at Trikuta Bhawan, Katra and Saraswati Dham, which includes regular checking of parameters required for smooth operations of the plants, Filtration Plant, Pump Set and Electric Driven Pump Set etc including entire electro-mechanical parts as per CPCB/JKPCC norms.
- The bidder shall comply with CPCB/JKPCC norms (as revised from time to time) and also Directions / Orders from National Green Tribunal / Ministry of Environment, Forest & Climate change
- For operationalisation and maintenance of Plants, the Successful Bidder shall deploy one qualified Supervisor and adequate technical operators (Minimum 01 number in each shift) for the smooth functioning of the Plants 24x7, as per the following qualifications / experiences:
  - a) **Supervisor (Skilled)**: An individual having environmental engineering or science (Graduate or Post Graduate) Background with experience of at least three years in handling ETP operational and maintenance work. Certificate of experience in similar plants of minimum capacity of 10 KLD essential. (Proof is to be attached)
  - b) **Operator (semi-skilled)**: An individual having High School Pass with sciences and be physically fit and mentally alert who work in shifts in operating and maintaining screens, grit removal devices, pumps, aerators, valves, etc and having Minimum 2 year experience in handling ETP operational and maintenance work. (Proof is to be attached)
- The Successful Bidder shall maintain necessary log books on daily basis, records of internal and external testing, submit periodic reports etc.
- All consumables, chemicals required for Operation and Maintenance of the ETPs shall be provided by the Successful Bidder.
- Successful bidder shall ensure regular dosing of chemicals in the system, backwash, rinsing of multi grade filters, activated carbon filter and cleaning of bar screen etc.
- Regular checking of parameters like color, odor, pH value etc and take immediate action for corrective measures, in case of deterioration in any parameter.
- Undertake regular preventive maintenance of all mechanical equipments, pumps valves etc. and take corrective action whenever required for smooth operations.
- Successful Bidder should be fully equipped with tool sets and testing equipments required for day-to-day operation and maintenance of the plant.
- Successful Bidder shall record daily data of the operations, maintaining all sorts of records as per requirements viz. sheets of system performance, chemical



consumption records, electrical consumption records, daily inlet outlet discharge quantities.

- Successful Bidder shall provide all preventive/routine maintenance and breakdown/corrective maintenance required for ensuring maximum uptime.
- If the system is found damaged/defective due to non-maintenance, the cost for correcting the breakdown system will be deducted from the payment chargeable under the maintenance contract as per the penalty amount defined in Penalty Clause.
- Successful Bidder shall submit the Character Certificate of each manpower duly verified by the Competent Authority of Police Department.
- Successful Bidder shall submit the medical fitness certificate of each manpower duly certified by Medical Department not below the rank of Block Medical Officer.
- Successful Bidder shall perform Monthly testing of the required parameters of the influent and effluent quality, for pH, Suspended Solids, COD, Total Dissolved Solids, Total Ammonical Nitrogen, BOD, Oil & Grease, Cl, SO<sub>4</sub>, Cyanide, Fluoride, pb, Hg, Ni, Zn, Hexavalent Chromium Cr+6 & Phosphate (as P) from CPCC / JK Pollution Control Committee (JKPCC) or labs approved by CPCC / JKPCC and submits the same to Engineer-in-charge. Sampling shall be done in accordance with BIS 3025.
- **Calibration of Instruments:**  
All the measuring instruments and other devices shall be calibrated regularly as mentioned below:
  - i. The instruments and devices shall be calibrated by the authorized specialized staff of the Bidder.
  - ii. All such instruments shall be calibrated once in every twelve months by approved third party specialized agency.
  - iii. Immediately after calibration, the results/ reports shall be submitted to Engineer-Incharge.
  - iv. First calibration by approved third party specialized agency shall be done after twelve months of commencement of O& M period.
- **Training:** The successful Bidder shall make provision of imparting training to Shrine Board's staff on Operation and Maintenance of ETP free of cost on quarterly basis. The successful Bidder shall formulate a training module for imparting training to the staff of Shrine Board and submit the schedule with Human Resource Department (Training Section), Central Office, SMVDSB, Katra well in advance to enable personnel department to plan trainings to the sanitation staff. After the accomplishment, successful bidder shall submit a report to this office with the detail like name of the employee trained, topics covered during the training etc. with due certification of Unit Head.
- **Reporting:** The successful Bidder shall prepare daily and Monthly reports (in approved formats) of pumping / treatment and plant performance and submit to Engineer-Incharge and shall assist Engineer-Incharge in preparing the necessary documents for their purpose and record as per Performa given from time to time. The report shall contain following:
  - a) A description of the maintenance work carried out in the reporting period. A report on major failures, if any, their causes and remedial actions taken.
  - b) Raw Effluent quantity, quality and effluent quality shall be submitted to Engineer-in-Charge.
  - c) Effluent quality and quantity (daily basis) in the reporting period.
  - d) O&M staff deployed by the Bidder during the reporting period.

- e) Major repair works carried out, if any
- f) Anything significant or accident happened during period under report.
- g) Apart from the regular maintenance staff, the Bidder shall send a technical expert to inspect/check the Plant on monthly basis who shall write his comments in the Log-book which shall be verified by the Engineer-Incharge.
- The Successful Bidder shall get the final test reports done from an approved External Testing agency on monthly basis for the influent and effluent quality, suitable to ensure proof that the entire Plant is running satisfactorily. The cost incurred for test reports shall be borne by successful bidder
- The treated Effluent water/digested sludge shall be tested for the following parameters on Monthly basis and Shrine Board, may order analysis of additional parameters required to check the efficiency and efficacy of the plant on the cost of the Bidder.
- To avoid corrosion / rusting of the equipments / parts of the Effluent Treatment Plants, the successful bidder shall be responsible to apply grease, oiling, painting etc. as and when required.

**A. Effluent Treatment plant can be operated with the help of 4 different ways:**

|   |             |   |
|---|-------------|---|
| 1 | Preliminary | Removal of Solids, Oil & Grease   |
| 2 | Primary     | Removal of floating & settable such as Suspended solids, Organic Matter |
| 3 | Secondary   | Removal of Biodegradable organic matter (BOD).                          |
| 4 | Tertiary    | Removal of residual suspended solids, Dissolved solids                  |

**B. Physical and chemical parameter for Influent/Effluent: The treated waste water should comply with the standards given in consent order by CPCC / JKPCIS standards with (not limited to) following parameters:**

| Parameters               | Units | Limits  |
|--------------------------|-------|---------|
| pH                       | –     | 5.5-9.0 |
| Suspended Solids         | mg/l  | 100     |
| COD                      | mg/l  | 250     |
| Total Dissolved Solids   | mg/l  | 2100    |
| Total Ammonical Nitrogen | mg/l  | 50      |
| BOD 3 Days, 27 °C        | mg/l  | 100     |
| Oil & Grease             | mg/l  | 10      |

|                             |      |      |
|-----------------------------|------|------|
| Chloride as Cl              | mg/l | 600  |
| Sulphate as SO <sub>4</sub> | mg/l | 1000 |
| Cyanide                     | mg/l | 3    |
| Fluoride                    | mg/l | 2    |
| Lead as pb                  | mg/l | 0.1  |
| Mercury as Hg               | mg/l | 0.01 |
| Nickel as Ni                | mg/l | 3    |
| Zinc as Zn                  | mg/l | 5    |
| Hexavalent Chromium Cr+6    | mg/l | 0.1  |
| Total Metal                 | mg/l | 10   |

**Note: All the above tests shall be performed on a 24 hour composite sampling (2 hourly composite) at least once a month.**

- C. All Bacteriological (Fecal Coliform) analysis of treated Effluent: (Once in a month)**

| Date of sample    | Influent (MPN/100ml) | Effluent (MPN/100ml) |
|-------------------|----------------------|----------------------|
| 24 hour composite |                      |                      |

- D. Physical chemical analysis of biological sludge: (Once in month)**

| S.No. | Parameter                                    |
|-------|--|
| 1.    | Appearance                                   |
| 2.    | Odour  |
| 3.    | Moisture percentage                          |
| 4.    | Organic content (percentage of Total solids) |

- The Chemicals and reagents required for testing will be arranged by the successful bidder from its own. The Bidder will employ its own staff for testing purpose. However, the Shrine Board will be at liberty to get random sampling and testing done on its own or from any other agency at the cost of the Bidder.
- Successful Bidder has to ensure maximum cleanliness in the operation and maintenance of the plant. At any time, the plant, its equipments and its surroundings have to be kept neat and clean, failing which penalty equivalent to the cost of per day Operation and Maintenance charges shall be imposed and recovered from the dues out of Comprehensive Operation and Maintenance Contract.
- Under no circumstances Plant should remain under breakdown for more than 03 hours. In the event of breakdown/ shut down the onus of attending to the problem in the shortest possible time will rest on the Bidder failing which

Engineer-in-Charge of Shrine Board is empowered to get the breakdown / shut down / any defect rectified from any outside agency at the risk and cost of the Bidder and recommended necessary deductions from their bills.

- After expiry of operation and comprehensive maintenance contract of five years, the Bidder shall handover the ETP(s) along-with residential structure in good running condition to authorized officer of Shrine Board or successful successor bidder.
- Precaution against any fire hazards or other damages to Plant and equipment shall be arranged by the Bidder. The Bidder shall keep the Shrine Board indemnified from any encumbrances /loss on this account. It shall also be the responsibility of the successful bidder to install sufficient number of fire extinguishers in order to avoid any untoward incident.
- The successful bidder shall conspicuously display the flow chart depicting functioning / working of ETP(s) including capacity of ETP(s) alongwith storage capacity of treated water.

12. **Earnest Money Deposit:**

- (i) The Bidders should submit an EMD of **Rs. 2.60 Lakh** in the form of CDR/FDR pledged to the FA / Chief Accounts Officer, Shri Mata Vaishno Devi Shrine Board, Katra. There shall be no relaxation/ concession to any Unit/Agency whatsoever in regard to the amount of EMD to be paid.
- (ii) The earnest money of the Bidders shall be forfeited if they withdraw their tender or raise the price of their offer within the validity period. The earnest money shall also be forfeited in case of the Bidders who do not comply with LoA issued to them within the validity period of the offer or violate any terms and conditions contained herein.
- (iii) Earnest money deposited shall be released in favour of the unsuccessful Bidders(s) within one month after allotment of LoA..

13. **Prices, Taxes & Levies etc:**

- i. Prices quoted must be firm and F.O.R work site and it should include all the components of taxes, local levies (entry tax and toll tax payable at Lakhanpur), prices for transit insurance, freight, installation, etc. at destination site, discount, if any, should be shown separately while quoting rates per unit.
- ii. Goods & Service Tax (GST) or any other tax chargeable at present rates shall be borne by the Bidders. However any variation in taxes during execution of work shall be borne by the Shrine Board.

14. **Payment Terms:**

- a) 20% of project cost (interest free recoverable mobilization advance) to be released against submission of equivalent amount of bank guarantee (valid till 90 days) 7 days after issuance of letter of award. The recovery of the advance shall commence from the first running account bill onward in the manner full advance shall be recovered when 80% of the work is completed. Project Cost against submission and approval of all drawings including procedures and deliverables mentioned scope of the work namely Pre-

delivery Inspection and design validation, Method Statement, etc. and to be released on a pro-rata basis on the satisfaction of Unit In-charge, SMVDSB.

- b) 30% of Project Cost on pro-rata basis after delivery of material and equipment at site (No part shipment of a full equipment will be entertained for payment)
- c) 40% of Project Cost on pro-rata basis against installation at site, Testing & Commissioning including initial training to staff and final submission of all built drawing including O&M manuals, maintenance charts, future training calendar of manpower to the client etc securing necessary approval for the Shrine Board including obtaining of all license and approval from statutory authorities to be satisfaction of Unit In-charge, SMVDSB.
- d) Remaining 10% of the project cost shall be released @ 2% every year during the comprehensive maintenance contract period of Five (5) years.
- e) The O&M payment shall be paid on quarterly basis against the bill raised by the Bidder before the Engineer-in-Charge. The Engineer-in-Charge should duly verify the bills and forward the same alongwith performance report to the Incharge, Sanitation Section, Central Office, Katra for release of payment.

15. **Contract Rates:**

The Contract rates and prices shall be deemed to include all labour, materials, equipments, temporary works and buildings, insurance, sales tax, all taxes and duties, establishment charges, profit, supervision, transport, testing and other charges and fees and other incidental expenses that may be incurred for proper execution, completion and maintenance of the works, and shall include for all obligations imposed upon him by the specifications, schedules and drawings pertaining to the work.

16. **Security Deposit:**

- (i) The successful Bidders(s) shall furnish security deposit equivalent to 10% (ten percent) of the value of the contract in the form of Bank Guarantee / CDR /FDR from Nationalized/ Scheduled Bank pledged to the FA / Chief Accounts Officer, Shri Mata Vaishno Devi Shrine Board, Katra valid upto the end of Comprehensive Annual Operation and Maintenance Contract period of five (05) years. Such security deposit shall be furnished within one month from the date of issuance of LoA. Failure to do so within the stipulated period will make the contract liable for cancellation together with forfeiture of the EMD at the discretion of Chief Executive Officer, Shri Mata Vaishno Devi Shrine Board. The EMD of the successful Bidders of the contract could also be adjusted as security deposit subject to its validity.
- (ii) The security deposit will be released within one month from the date of completion of Contract Agreement and no interest will be paid thereon.

17. **Penalty:**

- a) In case of failure on the part of the Bidders to install & commission the Standalone Effluent Treatment Plant(s) and execute the work in full or part thereof within the delivery schedule stipulated in the award of work, a penalty @ 0.5% (*half percent*) per week of unfinished work subject to a maximum of 03% (*three percent*) of the cost of unfinished portion of the contract shall be levied at the discretion of the Shrine Board.

- b) The Shrine Board will be at liberty to treat the following reasons as violation of agreement deed attracting monetary penalties as per the following details to the licensee on the basis of complaints received and verified by its officer to be authorized by the Chief Executive Officer / Addl. Chief Executive Officer for the purpose and its repetition shall invite cancellation of license. The penalty on complaints shall be imposed for maximum of three times, thereafter the agreement deed shall be liable to cancelled, the security deposit shall be forfeited.
- c) In case, the firm fails to deliver the material upto 6 weeks after scheduled time of 60 days, cancellation of LoA, forfeiture of security deposit & equipment installed shall be property of the Board.

| <b>S No.</b> | <b>Particulars</b>  | <b>Amount (in Rs.)</b>  |
|--------------|---|---|
| 1.           | Non-wearing of uniform by the Staff.  | 200/- per employee per violation.   |
| 2            | Non-wearing of I-Card by the Staff.   | 200/- per employee per violation.   |
| 3.           | Smoking of cigarettes or use of any tobacco products or pan chewing / playing of cards or consumption of liquor / alcohol or eating of non-vegetarian food within or around the premises. | 1000/- per complaint.   |
| 4.           | Misbehave with the pilgrims / staff.  | 1000/- per complaint.   |
| 5.           | Non-submission of police verification reports after 60 days of LoA.   | 200/- per person per month  |
| 6            | Non- submission of medical fitness certificate of engaged manpower after 60 days of LoA.  | 500/- per person on half yearly basis   |
| 7            | Poor performance as assessed by Unit Head / Executive Engineer or any other authorized officer of Shrine Board officials.   | Rs. 1000/- per occasion   |
| 8            | Breakdown Delays after complaint lodged by the Unit Head / Engineer-In-Charge.  | Upto 1 days - Nil: From 2-5 days Rs.1,000/- per day From 6-12 days: Rs. 2,000/- per day. Beyond 12 days: Contract shall be liable for termination and forfeiture of Security Deposit. |
| 9            | In case of non submission of training schedule / non-providing of training on quarterly basis.  | Rs. 5000/- per quarter.   |

18. **Storage of Material and Safe Custody:**

Lockable storage space, if available, at site shall be made available to the successful Bidder by the Unit-In-Charge. However, the contractor shall be responsible for security and safe custody of his equipment installations, till they are formally taken over by the Unit-In-Charge. Non-availability of lockable storage space due to any reasons shall not relieve the contractor of his contractual obligations in any way.

19. **Measurement:**

All works shall be measured in accordance with relevant IS Standards not withstanding general or local practices unless where specifically described otherwise in the specific sections of the specifications. All measurements shall be taken by the Engineer-In-Charge in the presence of the successful Bidder. Payments shall be released against invoice of the contractor based on the joint measurements recorded as per the terms of payment specified in the order.

20. **Material Inspection, Examination & Testing:**

All materials and equipment shall be new. On arrival of the materials at site they shall be inspected and checked by the Engineer-In-Charge to ensure that the materials conform to the specifications and standards. The Engineer-In-Charge and his representatives shall at all reasonable time have free access to the Contractor's/Manufacturers works. They shall have full powers to examine the materials and workmanship of the various items being manufactured at the contractors/manufacture's works or at any other place from where the material or equipment is obtained. Original Test Certificates of the manufacturer shall be submitted by the Contractor for all major equipments before they are accepted by the Engineer-In-Charge. Acceptance of any material or equipment shall in no way relieve the Contractor of his responsibility for meeting the requirements of the contract.

21. **Performance Monitoring Committee (PMC):**

There shall be a Performance Monitoring Committee to be nominated by the CEO/Addl. CEO to monitor the performance of the ETP(s) as per the prescribed norms of CPCB for the purpose of releasing payments to the contractor and imposition of penalties, if any.

22. **Delivery:**

(i) The Delivery, installation and commissioning of the Standalone Effluent Treatment Plant(s) at Katra and Jammu should be completed within 120 days from the date of issuance of Letter of Award (LoA).

(ii) In case of failure to execute the contract, the Shrine Board shall have the right to order risk contract at the cost of supplier or / and cancel the contract and claim reasonable compensation / damages.

(iii) As soon as the allotment letter is issued to the Contractor/ Bidder, he will submit to the Engineer-in-Charge, his program to complete the works by the time indicated in the contract, in the form of a Bar Chart for review of the Engineer-in-Charge and make suggested modifications before his approval of the same. The approved bar chart shall be diligently and strictly followed

with a view to complete the works as per schedule. The progress & planning of works shall be reviewed from time to time.

23. **Technology Certificate:**

The supplier shall issue a certificate stating that-

- a) The Standalone Effluent Treatment Plant(s) is/are of the latest technology. In support of this, Bidder shall furnish design validation from Central Pollution Control Board (CPCB)/J&K State Pollution Control Board (JKPCC)/National Environmental Engineering Research Institute (NEERI), Nagpur/IITs.
- b) The Standalone Effluent Treatment Plant(s) should be so designed that these can be upgraded to the CPCB/JKPCC norms issued from time to time.

24. **Calibration of Instruments:**

All the measuring instruments and other devices shall be calibrated regularly as mentioned below:

- i. The instruments and devices shall be calibrated by the authorized specialized staff of the tenderer.
- ii. All such instruments shall be calibrated once in every twelve months by approved third party specialized agency.
- iii. Immediately after calibration, the results/ reports shall be submitted to Engineer-Incharge
- iv. First calibration by approved third party specialized agency shall be done after twelve months of commencement of O& M period.

25. **Factory Inspection:**

The CEO/ ADDL CEO may constitute a committee to visit manufacturing unit of the successful bidder, in such case successful bidder shall be liable to have their factories inspected by a team of at least three officers/ Officials of the Shrine Board for assisting their technical/ commercial capacity for ensuring smooth supply of material and uninterrupted execution of ETPs work. No Supplies unless otherwise directed shall be dispatched without prior inspection and approval by the Shrine Board and all the boarding, lodging, to & fro fare on account of the Inspecting shall be borne by the Suppliers/ Contractor.

26. **Guarantee & Defects Liability:**

All works covered by this contract shall be guaranteed by the Tenderer against faulty material and workmanship for a period of 12 months to commence from the date of compliance to CPCB/JKPCC Norms assessed on the basis of 02 successive test reports spaced atleast one month apart, by the Performance Monitoring Committee. Any part found defective shall be replaced free of all costs by the contractor. If performance of equipment during guarantee period is not satisfactory, the guarantee period shall be extended for further periods as decided by the Unit-In-Charge, considering the time taken to achieve satisfactorily performance.

27. **Permits & Licenses:**

All licenses and permits for the work under Government control (local/Central) authorities shall be obtained by the tenderer himself at his own costs and fees.



28. **Insurance:**

The bidder shall insure all equipment, materials, machinery and installations as a whole until successful completion and handing over to the Engineer-In-Charge. Insurance policy should cover for all kinds of erection risks, fire, theft, or loss in transit. All workers and third party shall be insured in accordance with the employee Compensation Act in the event of an accident.

29. **Shrine Board reserves the right to alter, accept or reject part or all the Tenders without, assigning any reason thereof.**

30. **TERMINATION OF CONTRACT:**

That the contract shall be liable to be terminated any time during the period of contract on one month's notice by the Shrine Board or payment of an amount equivalent to one month's sum in lieu of the notice. The contract shall also be liable to be terminated any time during the period of contract on three months' notice by the successful bidder or payment of an amount equivalent to three month's sum in lieu of the notice. The successful bidder shall not sublet the operation to any other agency / person etc. at any time during the period of contract.

31. **ALLOTMENT OF THE WORK / CONTRACT, IN CASE OF TERMINATION OF CONTRACT/ WORK ORDER SITUATION ARISES:**

(A) The Earnest Money Deposit shall be forfeited, if the successful Bidder fails:

- i) To accept Letter of Award
- ii) To furnish Security Deposit in accordance with Clause No. 11 (f) of the e-NIT.
- iii) To take-up the work or execute the agreement with SMVDSB in the stipulated time.

(B) Termination of Contract during the currency of the contract period due to whatsoever reasons.

In any of the above situations, the SMVDSB may allot the work for the remaining period to L-2 bidder if agreed on the same rates quoted by the L-1 bidder. In case, L-2 bidder do not agreed on the rates quoted by L-1 bidder then L-3 bidder and so on shall be called for negotiations. However, the final decision shall be taken by the Chief Executive Officer, SMVDSB.

32. **ARBITRATION:**

All disputes and differences between the parties hereto shall be referred to the sole arbitration of the person to be nominated and appointed by the **Chief Executive Officer, Shri Mata Vaishno Devi Shrine Board**, whose decision shall be final and binding upon the parties to this agreement. The provision of The Arbitration and Conciliation Act, 1996 shall apply. Courts at Jammu / Katra / Reasi only shall have the jurisdiction to entertain any legal proceeding arising out of this contract.

33. **SHRI MATA VAISHNO DEVI SHRINE BOARD'S RIGHTS IN RESPECT OF E-TENDER:**

- a) SMVDSB reserves the right to modify terms and conditions of the contract which shall be granted to the successful bidder after the bidding process, if in the opinion of the SMVDSB, it is necessary or expedient to do so in yatries / Board's interest. The decision of the SMVDSB shall be final and binding.
- b) SMVDSB reserves the right to suspend and / or cancel the contract with the selected party in part or in whole at any time if in the opinion of the SMVDSB, it is necessary or expedient in the public interest. The decision of the SMVDSB shall be final and binding. Also, SMVDSB shall not be responsible for any damage or loss caused or arising out of aforesaid action.

34. **FORCE MAJEURE:**

If during the currency of Contract, there is any out-break of war/ natural calamity or any such reason, which whether financially or otherwise affects the execution of the Contract the firm (unless contract is terminated) under provision of this Clause shall make his / her best efforts to complete the Contract. However after outbreak of such war / natural calamity or any such reason, Shri Mata Vaishno Devi Shrine Board shall be entitled to terminate the Contract at any time by giving notice in writing. Force Majeure is hereby defined as a 'Clause' which is beyond the control of SMVDSB / Firm and which consequently affects the performance of the Contract.

35. **JURISDICTION:**

Court of Jammu, Reasi & Katra alone shall have the jurisdiction with respect to the subject matter of this contract.

36. **PERMITS & LICENSES:**

All licenses and permits for the work under Government control (local/Central) authorities shall be obtained by the Bidder himself at his own costs and fees.

37. **VALIDITY OF RATES:**

The rates quoted by the bidders shall be valid for a period of 60 months (Sixty months) from the issuance of rate contract or till new rate contracts are finalized by SMVDSB whichever is later.

**Queries may be addressed to:**

Asstt. Conservator of Forest, SMVDSB, Katra,

Fax: +91- 1991-232120 Tel.: +91-1991-232818

Website: [www.maavaishnodevi.org](http://www.maavaishnodevi.org),

Email: [acf@maavaishnodevi.net](mailto:acf@maavaishnodevi.net), [sanitation@maavaishnodevi.net](mailto:sanitation@maavaishnodevi.net)

**Asstt. Conservator of Forest  
SMVD Shrine Board, Katra**

**No:- CO/SW/ETP/157/8880-82**

**Dated: 07-03-2024**

**SCHEDULE –A****Technical Bid**

| <b>S.No.</b> | <b>Particular / Criterion</b>  |   |                         |
|--------------|--|---|-------------------------|
| 1            | Name of the Firm Organization with complete details, including Address (Telephone No./ Contact Mobile No. / Fax No. / E-mail) alongwith brief description of background (The background may be as a separate). | : |                         |
|              |  |   |                         |
| 2            | Date of establishment of the Firm. Details of Registration No. of the firm/ company/ LLP. Location of Head Office, Regional Office and Branch Office.  | : |                         |
|              |  |   |                         |
| 3            | Please specify whether you are submitting you tender as a proprietor of the firm or as a partner of the firm or Director of the Company.   | : |                         |
|              |  |   |                         |
| 4            | Name of the Proprietor / Partner / Directors of the tendering firm / Company/ LLP together with technical qualifications. Organization Charts, Manpower Strength and details of key personnel.                 | : | Attached / Not Attached |
|              |  |   |                         |
| 5            | Past experience in the field along with performance certificates (please enclose testimonials / documentary evidence)  | : | Attached / Not Attached |
|              |  |   |                         |
| 6            | Annual turnover in the last three years as per audited balance sheet, a copy whereof to be enclosed along with profit and loss account statements.   | : | Attached / Not Attached |
|              |  |   |                         |

|    |  |   |   |
|----|--|---|---|
| 7  | a) PAN (proof to be enclosed)<br>b) ITR statements / Income Tax Assessment Order (for the last 03 years to be enclosed)<br>c) Service Tax Registration No. | : | Attached / Not Attached   |
| 8  | Detail of EMD (in form of CDR / FDR only)  | : | Amount:<br><br>Name of issuing Bank:<br><br>Date of issue   |
| 9  | Duration of validity of Bid  | : |   |
| 10 | Does the Bidders owe by himself or by proxy or on behalf of any other person any money / due in connection what so ever to the Shrine Board.               | : | Yes/ No   |
| 11 | VAT/ Sale Tax Registration Number (attach copy)  | : |   |
| 12 | Tender Fee .....   | : | Shrine Board Receipt No. & date _____<br><br>Or<br>DD No. _____ dated _____<br>Bank _____<br>Payable at _____ |

|    |  |   |                         |
|----|--|---|-------------------------|
| 13 | Attested copy of valid BIS Certificate attached or not:  | : |                         |
|    |  |   |                         |
| 14 | Literature / leaflets on products  | : | Attached / not attached |
|    |  |   |                         |
| 15 | Copy of Certificate,   | : | Attached / not attached |
|    |  |   |                         |
| 16 | Authenticate Photostat copies of test certificates from  | : | Attached / not attached |
|    |  |   |                         |
| 17 | Any other documents / information required to be provided as per terms and conditions and requirements of the tender document (indicate item wise) | : | Attached / not attached |

I certify that I am authorized to furnish the information given in the Schedule-A on behalf of the firm I represent and that it is true to the best of my knowledge and belief

Signature of Bidder\_\_\_\_\_

Name of the Firm & Address \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Financial Bid**

**Online Only**

Office of the Chief Executive Officer  
Shri Mata Vaishno Devi Shrine Board, Katra (J&K)

Name of the Tenderer: \_\_\_\_\_

Amount of CDR/FDR with  
number & date: \_\_\_\_\_

To  
The Chief Executive Officer,  
Shri Mata Vaishno Devi Shrine Board  
Katra

Sir,  
I \_\_\_\_\_ S/o Shri \_\_\_\_\_

R/o \_\_\_\_\_ in capacity as Proprietor  
of a firm/ Partner of a firm/ Director of Company, hereby submit my tender for the  
Survey, Design, Supply, Installation, Commissioning, Testing, Operation and  
Comprehensive Maintenance for a period of five (05) years of Effluent Treatment Plants  
complete in all respects to cater the requirements of Laundry Plants at Katra and  
Jammu” for an amount mentioned below:

| <b>S. No.</b> | <b>Particulars</b>  | <b>Amount (in Rs.)</b>                  |
|---------------|---|---|
| 1.            | Total Cost of the project including Survey, Design, Supply, Installation, Testing and Commissioning of 10 KLD each capacity Effluent Treatment Plant based on Ultra-Filtration at Saraswati Dham, Jammu and Trikuta Bhawan, Katra inclusive of all taxes <b>(A)</b> |   |
| 2.            | Operation and Maintenance of ETP(s) installed at Jammu and Katra inclusive of all taxes <b>(B)</b>  |   |
|               | <b>Year</b>   | <b>Operation &amp; Maintenance Cost</b> |
|               | 1 <sup>st</sup> Year  |   |
|               | 2 <sup>nd</sup> Year  |   |
|               | 3 <sup>rd</sup> Year  |   |
|               | 4 <sup>th</sup> Year  |   |
|               | 5 <sup>th</sup> Year  |   |
|               | <b>Total “B”</b>  |   |
|               | <b>Grand Total (A+B)</b>  |   |

I affirm that the rates offered are inclusive of all taxes, duties, freight, insurance, carriage, etc. I further affirm that I have read and fully understood the tender notice and agree to abide by all the terms and conditions laid therein, which are being signed in token of my acceptance.

Signature of Bidders \_\_\_\_\_

Signature of Block Letters \_\_\_\_\_

Name of the Firm & Address \_\_\_\_\_

\_\_\_\_\_

Tender document for : Survey, Design, Supply, Installation, Testing, Operation and Maintenance and Commissioning of 10 KLD each capacity Effluent Treatment Plant based on Ultra-Filtration at Saraswati Dham, Jammu and Trikuta Bhawan, Katra

e-NIT No. : **CO/SW/ETP/157/02 of 2024**

Dated : 07-03-2024

Cost of Tender Document : Rs.1000/-

Receipt No. & Date : \_\_\_\_\_

Issued to M/s \_\_\_\_\_ against Demand Draft for an amount of Rs. \_\_\_\_\_ drawn vide No. \_\_\_\_\_ dated \_\_\_\_\_.

Authorized Signatory

**Annexure-I**

| <b>Approved Makes of Major Components for Effluent Treatment Plant</b> |  |   |
|--|--|---|
| 1  | Air blower                                 | Akash/A1 Blower/Key/Airvak  |
| 2  | Blower Motor                               | Bharat Bijlee /Crompton Greaves/ Siemens / Kirloskar  |
| 3  | Submersible Non Clog Pump                  | Willo/KSB/CNP/Kirloskar   |
| 4.   | Clear water pumps                          | Willo/KSB/CNP/Kirloskar   |
| 5  | Disinfection Pump                          | Asia Lmi / Toshcon/Pentair/ E-Dose  |
| 6  | Gear Boxes                                 | Greaves Gear  |
| 7  | Cable                                      | Finolex / Polycab / Delto /Havells  |
| 8  | Sludge Transfer Pump                       | Roto/ Kirloskar /Willo / Ksb / Jhonsons   |
| 9  | Butter Fly Valve                           | ISI   |
| 10   | Control Panel                              | CPRI Approved Vendor with component shal be from L&T / Siemens / English Electric Component / Auto Switch |
| 11   | Gun Metal Valve                            | Any ISI make  |
| 12   | HDPE / PVC Pipe Class III                  | Finolex / Supreme / Oro / Trustlene with fitting  |
| 13   | GU/MS Pipe Heavy Class paint / epoxy paint | Jidal Hissar/Surya/Prakash  |
| 14   | Solution Tank                              | Sintex, Ganga, Sheetal, LDPE  |
| 15   | Diffuser                                   | Rehau/ Techpro/W360   |
| 16   | Structural Steel                           | Tata / Ispat /Sail  |
| 17   | MS/GI /UPVCPiping                          | Jindal / Supreme/Astral/Surya Prakash   |
| 18   | Filter Column                              | Fabricated  |
| 19.  | Sludge Bag                                 | W 360/CNP/CCP/Pharmatech  |
| 20   | Basket Type Centrifuge                     | A B engineers/ W 360/Apollo   |
| 21   | Sludge Loading Pumps                       | Kirloskar/Roto/Rotomac/Willo  |
| 22   | UV System                                  | Alfa/Creative/W 360/Sukrat  |
| 23   | Ozonator System                            | Creative/Sukrat/Am Ozonics/W360   |
| 24   | UF Module                                  | Qua/DU-Pond,/Hiflux/Pentair   |
| 25   | UF Feed Pumps & Back wash Pumps            | Willo/KSB/CNP/Kirloskar   |



**Affidavit to be submitted by the bidder**

Performa of affidavit to be submitted by the bidder regarding eligibility. "I/We undertake and confirm that eligible similar work(s) has /have not been got executed through another contractor on back to back basis.

Further that, if such a violation comes to the notice of SMVDSB, then I/We shall be debarred for biding in SMVDSB Contracts in future forever. Also, if such a violation comes to the notice of SMVDSB before date start of work, the Authorized Officer of SMVDSB shall be free to forfeit the entire amount of Earnest Money Deposit/ Performance Guarantee."

Signature of Bidders \_\_\_\_\_

Signature of Block Letters \_\_\_\_\_

Name of the Firm & Address \_\_\_\_\_

| DESIGN CRITERIA |   |   |
|-----------------|---|---|
| S.No            | Description   | Consultant's Requirement/ Recommendation  |
| 1               | <p><b><u>Flow Capacity</u></b></p> <p>Total daily ultimate flow in Cu.m/day</p> <p>Peak factor</p>  | <p>10m<sup>3</sup>/day</p> <p>3.00</p>  |
| 2               | <p><b><u>Quality of the Untreated Effluent</u></b></p> <p>BOD</p> <p>Suspended solids</p> <p>COD</p> <p>pH</p> <p>Oil &amp; grease</p>        | <p>100 to 150 mg/lit</p> <p>250 mg/lit</p> <p>400 to 500 mg/lit</p> <p>6.5 to 8.5</p> <p>5 to 10 mg/lit</p> |
| 3               | <p><b><u>Quality of the Treated Effluent</u></b></p> <p>-</p> <p>BOD</p> <p>Suspended solids</p> <p>COD</p> <p>pH</p> <p>Oil &amp; Grease</p> | <p>&lt; 10mg/lit</p> <p>&lt; 50mg/lit</p> <p>&lt; 100mg/lit</p> <p>6.5 to 8.5</p> <p>&lt; 5mg/lit</p>       |
| 4               | <b>Location &amp; Position of ETP</b>   | <p>i) Trikuta Bhawan, Katra</p> <p>ii) SMVDSB Establishment, Jammu</p>                                      |
| 5               | <b>Availability of Area</b>   | Please Specify  |
| 6               | <b>Treatment Methodology</b>  | Physico Chemical, Biological +Ultrafiltration   |
| (CONTRACTOR)    |   |   |
| Dated:          |   |   |

| DATA FOR CIVIL WORK             |  |
|---------------------------------|--|
| S.No.                           | Description  |
| <b>Effluent Treatment Plant</b> |  |
| 1                               | Barbed Fencing to be used as Boundry , Platform, Railing, Jallis, Shed for Panel, Drain channel, Tanks etc       |
| 2                               | Screen Chamber   |
|                                 | Perforated coarse screen chamber including having provision for lifting arrangement etc. complete as required.   |
|                                 | Quantity   |
|                                 | Size   |
| 3                               | MOC  |
|                                 | Collection Cum Equalization Tank   |
|                                 | Provision for aeration of sump will be kept to avoid any smell problems (if retention time is more than 3 hours) |
|                                 | Nos  |
|                                 | Size   |
|                                 | Free board   |
|                                 | Material of construction   |
| Hydraulic Retention volume      |  |

| DATA FOR DIFFERENT MS-FRP TANKS |  |
|---------------------------------|--|
| S.No.                           | Description                            |
| <b>Effluent Treatment Plant</b> |  |
| 1                               | <b>Coagulation Tank</b>                |
|                                 | Size & Capacity                        |
|                                 | Free board                             |
|                                 | Material of construction               |
| 2                               | <b>Flocculation Tank</b>               |
|                                 | Capacity                               |
|                                 | Free board                             |
|                                 | Material of construction               |
| 3                               | <b>Primary Tube Settler</b>            |
|                                 | Size & Capacity                        |
|                                 | Free board                             |
|                                 | Material of construction               |
| 4                               | <b>Aeration Tank</b>                   |
|                                 | Size & Capacity                        |
|                                 | Free board                             |
|                                 | Material of construction               |
| 5                               | <b>Secondary Tube Settler</b>          |
|                                 | Capacity                               |
|                                 | Free board                             |
|                                 | Material of construction               |
| 6                               | <b>Clear Water Tank</b>                |
|                                 | Capacity                               |
|                                 | Free board                             |
|                                 | Material of construction               |
| 7                               | <b>Sludge Drying Beds</b>              |
|                                 | Size & Capacity                        |
|                                 | Free board                             |
|                                 | Material of construction               |
| 8                               | <b>Treated Water Tank/UF Feed Tank</b> |
|                                 | Size & Capacity                        |
|                                 | Free board                             |
|                                 | Material of construction               |
| 9                               | <b>UF Permeate Water Tank</b>          |
|                                 | Size & Capacity                        |
|                                 | Free board                             |
|                                 | Material of construction               |

## Annexure-VI

| DETAILS OF ELECTRO - MECHANICAL EQUIPMENT, PIPING & VALVES ETC. FOR EACH ETP |   |  |
|--|---|--|
| S.No.  | Description   | Tentative<br>(Qty to be specified by vendor) |
| <b>Effluent Treatment Plant</b>  |   |  |
| 1  | <b>Coarse Screen</b>  |  |
|  | Quantity  | 1 No.  |
|  | Size  | 300 (wide) x 300 (deep)                      |
|  | MOC   | SS 304                                       |
|  | Bar Spacing   | 12 - 16mm                                    |
|  | Make  | Fabricated as per Specification              |
| 2  | <b>Fine Screen</b>  |  |
|  | Quantity  | 1 No.  |
|  | Size  | 300 (wide) x 300 (deep)                      |
|  | MOC   | SS 304                                       |
|  | Mesh Size   | 8 - 10mm                                     |
|  | Make  | Fabricated as per Specification              |
| 3  | <b>Raw Effluent Lifting Pumps</b>   |  |
|  | Providing & fixing centrifugal non-clog Effluent handling type pump for effluent transfer from equalization tank to Coagulation tank. The pump shall have complete CI construction, TEFC induction motor including pressure gauge, lifting arrangement for the pump, all necessary piping, valves, level controller, probes, cable etc. and other accessories as required |  |
|  | Make  | KSB/Willo/Kirloskar/CNP                      |
|  | Nos   | 2 nos. (1W+1S )                              |
|  | Type  | Centrifugal End SuctionType                  |
|  | Discharge of Each Pump  | 1 m <sup>3</sup> / Hr                        |
|  | Head  | Min. 12-15 Metre                             |
|  | RPM   | As required                                  |
|  | Particle handling   | 6 - 8mm                                      |
| Power requirement  | As required   |  |
| 4  | <b>Agitator for Coagulation &amp; Flocculation Tank</b>   |  |
|  | Quantity  | 2 Nos.                                       |
|  | RPM   | 30 RPM                                       |
|  | MOC   | SS 304                                       |
|  | Type  | Pitched Blade Type                           |
|  | Make  | FABRICATED                                   |
| 5  | <b>Chemical Dosing System (Lime, Alum, Poly)</b>  |  |
|  | Supply, installing, testing & commissioning of Chemical Dosing solution of Lime, Alum, Poly dozer comprising of 100 Ltrs Cap. FRP tank with inlet/outlet connection and along with 1 no. metering pump of adjustable capacity for dosing of chlorine solution   |  |
|  | Type  | Mechanical dosing pumps                      |
|  | Nos   | 3 Nos.                                       |

|                   |   |                                |
|-------------------|---|--------------------------------|
|                   | Capacity  | 0 - 4 LPH                      |
|                   | Feed solution   | Polyelectrolyte                |
|                   | MOC of tank & Nos.  | 3 Nos. LDPE 100 Litres         |
|                   | Make  | Asia LMI /Toshcon/ Pentair     |
| 6                 | <b>Air Blower</b>   |                                |
|                   | Provide the air to Aeration Tank and Sludge Thickner  |                                |
|                   | Make  | Akash/Key/A1 Blowers/Airvak    |
|                   | Nos   | 2 Nos. (1 Working + 1 Standby) |
|                   | Type of motor   | As required                    |
|                   | Power requirement   | as contractor                  |
|                   | Flow  | 20 m3/hr                       |
|                   | Head  | 4000 mm WC                     |
|                   | RPM   | As required                    |
| Type of Enclosure | Acoustic Enclosure  |                                |
| 7                 | <b>Fine Air diffusers</b>   |                                |
|                   | The <b>air diffusers</b> responsible for the oxygenation to the plant .   |                                |
|                   | Make  | Techpro/W360                   |
|                   | Nos   | As Required                    |
|                   | Type  | Fine Bubble                    |
| Discharge         | Min. 6 m3 / diffuser  |                                |
| 8                 | <b>Coarse Air diffusers</b>   |                                |
|                   | The <b>air diffusers</b> responsible for the oxygenation to the plant .   |                                |
|                   | Make  | Techpro/W360                   |
|                   | Nos   | As required                    |
|                   | Type  | Coarse Bubble                  |
| Discharge         | Min 3-5 m3 / diffuser   |                                |
| 9                 | <b>Sludge Transfer Pumps</b>  |                                |
|                   | Providing and fixing horizontal, centrifugal Sludge Transfer pumps for the disposal of sludge to Sludge Bag & to sludge drying beds. The pumps shall have CI casing, CI shaft & sleeve with mechanical rotary shaft seal connected by a flexible tier type coupling to TEFC induction motor mounted on a common channel base-plate with coupling guard, 150 mm dia pressure gauge with GM isolation cock, suitable vibration eliminator pads of approved design. Motor to be suitable for including all necessary piping, valves and other accessories and concrete foundation complete as required |                                |
|                   | Make  | KSB/Willo/Kirloskar/Ebara      |
|                   | Nos   | 4 Nos. (2 w+ 2s)               |
|                   | Type  | Centrifuge, Self Priming       |
|                   | Discharge   | 1 M3/hr                        |
|                   | Head  | 10 mtr                         |
|                   | Particle handling   | 6-8 mm                         |
| Power requirement | As required   |                                |
| 10                | <b>Filter Feed Pumps</b>  |                                |

|                   |  |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
|-------------------|--|-----------------------------|-------------------------|-----|------------------|------|------------------|-----------|-----------|------|--------|-------------------|-------------|
|                   | <p>Providing and fixing horizontal, non clog, centrifugal filter feed pump. The pumps shall have CI casing, CI shaft &amp; sleeve with mechanical rotary shaft seal connected by a flexible tier type coupling to TEFC induction motor mounted on a common channel base-plate with coupling guard, 150 mm dia pressure gauge with GM isolation cock, suitable vibration eliminator pads of approved design. Motor to be suitable for including all necessary piping, valves and other accessories and concrete foundation complete as required</p> |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | <table border="1"> <tr> <td>Make</td> <td>KSB/Willo/Kirloskar/CNP</td> </tr> <tr> <td>Nos</td> <td>2 Nos. (1 w+ 1s)</td> </tr> <tr> <td>Type</td> <td>Centrifugal type</td> </tr> <tr> <td>Discharge</td> <td>1.0 M3/hr</td> </tr> <tr> <td>Head</td> <td>25 mtr</td> </tr> <tr> <td>Power requirement</td> <td>As required</td> </tr> </table>  | Make                        | KSB/Willo/Kirloskar/CNP | Nos | 2 Nos. (1 w+ 1s) | Type | Centrifugal type | Discharge | 1.0 M3/hr | Head | 25 mtr | Power requirement | As required |
| Make              | KSB/Willo/Kirloskar/CNP  |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
| Nos               | 2 Nos. (1 w+ 1s)   |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
| Type              | Centrifugal type   |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
| Discharge         | 1.0 M3/hr  |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
| Head              | 25 mtr   |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
| Power requirement | As required  |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
| 11                | <b>Multigrade Sand Filter Column</b>   |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Providing and fixing vertical Multigrade Media Pressure Filter in FRP  |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Flow   | Down Flow                   |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Type   | Strainer Type               |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Nos  | 1                           |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Size   | Dia 400 mm x 1625 mm Height |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | MOC of vessel  | FRP                         |                         |     |                  |      |                  |           |           |      |        |                   |             |
| Media             | Sand, Gravel   |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
| 12                | <b>Activated Carbon Filter Column</b>  |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Providing and fixing vertical Activated Carbon Filter in FRP   |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Flow   | Down Flow                   |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Type   | Strainer Type               |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Nos  | 1                           |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Size   | Dia 400 mm x 1625 mm Height |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | MOC of vessel  | FRP                         |                         |     |                  |      |                  |           |           |      |        |                   |             |
| Media             | Activated Carbon   |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
| 13                | <b>Chlorine Dosing System</b>  |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Supply, installing, testing & commissioning of hypo-chlorine solution dozer comprising of 100 Ltrs Cap. FRP tank with inlet/outlet connection and along with 1 no. metering pump of adjustable capacity for dosing of chlorine solution  |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Type   | Mechanical dosing pumps     |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Nos  | 1 No.                       |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Capacity   | 0 - 4 LPH                   |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Feed solution  | Polyelectrolyte             |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | MOC of tank  | 1 No. LDPE 200 Litres       |                         |     |                  |      |                  |           |           |      |        |                   |             |
| Make              | Asia LMI /Toshcon/ Pentair   |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
| 14                | <b>Sludge Bag System</b>   |                             |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Nos  | 1 No. (1 Bag System)        |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Type of Equipment  | Bag Type                    |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Capacity   | 1 m3/hr                     |                         |     |                  |      |                  |           |           |      |        |                   |             |
|                   | Make   | CNP/Auric/CCP/W360          |                         |     |                  |      |                  |           |           |      |        |                   |             |

|     |  |  |
|-----|--|--|
| 15  | <b>Piping &amp; Valves</b>   |  |
|     | Providing and fixing all piping (as described below) and isolation contro valves for making the system complete.   |  |
|     | MS Epoxy (Class 'B')   | All piping before chlorine contact tank. |
|     |  | Non submerged air piping.                |
|     | GI / PVC Piping (Class 'C')  | All piping after filter feed pump.       |
|     | Material   | MS/u-PVC                                 |
|     | Make   | Tata/Jindal                              |
|     | Class  | Class 2 & 3                              |
| 16  | <b>Electromagnetic Flow Meter</b>  |  |
|     | Quantity   | 2 Nos (Inlet & Outlet)                   |
|     | Line Size  | As per Requirement                       |
|     | Make   | UPC/Forbes Marshall / Toshnival          |
| 17  | <b>pH Meter</b>  |  |
|     | Quantity   | 1 No.                                    |
|     | Range  | 0 - 14                                   |
|     | Make   | Aster / W 360                            |
| 18  | <b>Tubedeck Media</b>  |  |
|     | Quantity   | 3 M <sup>3</sup>                         |
|     | Type   | Floating                                 |
|     | MOC  | PVC                                      |
|     | Make   | MM Aqua / Cooldeck / Bharat              |
| 19  | <b>Media for Sludge Drying Beds</b>  |  |
|     | Quantity   | 1 Lot                                    |
|     | Type   | Pebbles, Gravels, Multigrade             |
| 20  | <b>UF System</b>   |  |
|     | Ultra Filtration (UF) system having filtration flux @ 40 - 120 L/m <sup>2</sup> /hr at 25 deg for further polishing treated effluent and capable of producing 1 m <sup>3</sup> / hour of polished water meeting the requirements. The system shall be complete with UF Feed Pumps (1W+1S), CIP Pumps (1W), Backwash Pumps (2 Nos. 1W+1S), Cartridge Filters, UF Membranes Flushing / Cleaning System, complete instrumentation for automation and monitoring, Rotameters, Pressure Gauges, interconnecting pipework, electrical cabling and switchgear, all complete as described in Scope of Work . |  |
|     | Type of Membrane   | Hollow Fibre                             |
| Nos | 1 No.  |  |



| <b>Note:-</b> |   |  |
|---------------|---|--|
|               | <p>1) All informations to be filled up by Contractor.</p> <p>2) Contractor shall provide all additional materials/equipments/items to complete the working of the ETP</p> <p>3) Contractor shall include all electrical mechanical items as required to operate the system automatically/ manually and also include in his rates level controller, electrical wiring cables earthing main control panel and connection to be various equipment's, other accessories complete as required. Only main power supply with the earthing to be ETP main control panel shall be provided by the owner through other agencies. The specifications for Electrical Panel given below.</p> <p>4) ETP should follow all the concern Indian and Local norms.</p> |  |

## Annexure -VII

| ELECTRICAL PANEL WITH WIRING FOR EACH ETP |  |     |
|---|--|-----|
| S.No.                                     | Description of Material  | Qty |
| 1   | Supply, installation testing and commissioning of electrical panel, front accessible only, free floor standing conforming to minimum IP-43 degree of protection. All incomings/outgoings shall be arranged in modular compartments. The panel steel structure shall undergo several tanks pre-treatment process before painting. The sheet steel shall be all of 2.0 mm thick CRCA sheet. All the operable compartments of the panel shall be completely shrouded, provided with padlocking arrangement on all compartments including bus bar and cable alley chambers.  |     |
| 2   | The panel designed shall not exceed 2200 mm and the maximum operating height for any switchgear shall not be more than 1600 mm. The panel shall be provided with minimum 75 mm base channel frame fabricated from ISMC sections. All bus bar links in the panel shall be solid bus bars with coloured PVC shrinkable sleeves. No wires will be acceptable. Continuous earth bus shall run all round the panel with earthing studs provided at minimum 2 places. The control wiring shall be carried with min. 2.5 mm <sup>2</sup> copper wires and shall be adequate for remote operation of the starters.   |     |
| 3   | All MCCBs shall be provided with rotary handles and minimum fault rating of MCCB shall be 25 KA. Proper sized cable termination gland plates shall be provided on cable alleys and knock outs for same shall be provided at fabrication stage itself. A 5A socket service outlet (single phase shall be provided in one of the compartments as service outlet in the panel. Panel shall be so designed as to have min. 20% spare feeders/space. Panel shall undergo epoxy powder coating with required color shade. All cable terminations shall be from top/bottom. All starters more than 10 HP shall be star delta type. All bus bars shall be of aluminium, electrolytic grade only. Maximum design density shall not exceed a 0.8 amps/mm <sup>2</sup> . All bus bars shall be insulated with coloured heat shrinkable PVC sleeved. All bus bar supports shall be SMC supports. |     |
| 4   | The panel shall be manufactured in conformance to requirement of local electricity board.  |     |
|   | <b><u>Incoming Section :</u></b>   |     |
| 1   | One (1) No. suitable rating, TPN MCCB (25 kA) with over current over/under voltage & earth fault protection.   |     |
| 2   | One (1) No. suitable rating, ammeter with ammeter selector switch & required CTs.  |     |
| 3   | One (1) No. 0-500 V, voltmeter with voltmeter selector switch & required control fuses.  |     |
| 4   | RYB phase indication Lamps with control fuses.   |     |
| 5   | One (1) No. earth leakage relay with multi-trip settings and suitable CBCT.  |     |
| 6   | One (1) No. energy meter, digital panel mounted type.  |     |
| 7   | One (1) Set window annunciator with hooter, Acknowledge, reset, test push buttons. Provision shall be made to Acknowledge the system from remote with sufficient nos. of NO/NC contacts.   |     |
|   | <b><u>Bus bar :</u></b>  |     |
| 1   | Set of suitable rating aluminium bus bar suitable for 415 V.   |     |
|   | <b><u>Outgoing feeders:</u></b>  |     |
| 1   | Air Blowers 2 Nos  |     |
| 2   | Raw Effluent Lifting Pumps 2 Nos   |     |
| 3   | Agitator 2 Nos.  |     |
| 4   | Filter Feed Pumps 2 Nos.   |     |

|    |   |  |
|----|---|--|
| 5  | Sludge Transfer Pumps 4 Nos.  |  |
| 6  | Lime, Alum , Poly Dosing Pumps 3 Nos  |  |
| 7  | Chlorine Dosing Pumps 1 No.   |  |
| 8  | UF Feed Pumps 2 Nos.  |  |
| 9  | Back Wash & CIP Pumps 1 No. Each  |  |
| 10 | Chemical Cleaning for UF (As Required)  |  |
| 11 | Flow Meter 2 Nos.   |  |
| 12 | pH Meter 1 No.  |  |
| 13 | Spare Feeders 2 Nos.  |  |
|    | <u>Note :</u>   |  |
| 1  | All starter (DOL & star delta starter) shall be provided with auto/manual switch, over load relay with single phase preventing feature, ON/OFF/TRIP indication lamps, ON/Off push buttons, contactors suitable for remote/local operation, contacts for building automation system, indication & spare potential free contacts, level controllers level switches etc. as required. All wiring from Panel to all equipment for ETP are included. |  |
| 2  | All wiring & Cabling from Control Panel to all electrical equipments with /ETP plant area is included in contractor scope.  |  |
|    | <b>Total Inclusive of all taxes/Transportation/Erection and commissioning of the plant</b>  |  |

**CONTRACTOR**

**DATED:**