



BHARAT HEAVY ELECTRICALS LIMITED

HPEP, RAMACHANDRAPURAM, HYDERABAD-502032

FACTORY CIVIL & PROJECTS DEPARTMENT

PRICE BID

(Ref: 7.F of NIT)

Ref NIT No: HY/FCD/OT-25/2021-22, date: 26.03.2022

Name of work: "Annual Operation & Maintenance of Effluent Treatment Plants (ETP) of Factory".

SNo.	Description	Unit	Qty	Unit Rate	Amount
PART-I: Common operations –Deployment of Plant Manager for maintenance of all three ETPs.					
1	Operation and Maintenance of Effluent Treatment Plants	One Month	12	Rs. 26,135.59	Rs. 3,13,627.08
1.a	The agency has to depute Plant manager and staff to attend the day to day operation and maintenance of the ETPs in round the clock shifts (3 Shifts). The operators shall have the thorough knowledge in operation, maintenance, effluents and handling the dosing/process chemicals				
1.b	Deploying One Plant Manager. The Plant Manager is an individual with Environmental Engineering or Science background with experience of at least three years on similar plant(s). He must have thorough knowledge of unit operations and application of microbiology and environmental chemistry in the effluent / sewage treatment. He should understand and be able to plan a forecast and use of chemicals / nutrients for the plant operations and the laboratory. He should be well versed in working out dosages of chemicals and nutrients based on the raw effluent quality and change it as the treatment progresses and results start forthcoming.				
Sub-Total of Part-I					= Rs. 3,13,627.08
PART-II (A): O&M, Testing & Material for ETP located near K-Gate.					
1	Operation and Maintenance of ETP located near K-Gate after obtaining the desired results / approval from the statutory authorities. All consumables, treatment chemicals & dosing chemicals, repair and maintenance for regular running of Effluent Treatment plant shall have to be borne by the contractor. Periodical monitoring of inlet and outlet samples of ETPs shall be tested at referal laboratory of state govt (EPTRI ONLY). Packing and stacking of dried sludge in the ETP vicinity is in the scope of contractor. The operation and maintenance of the ETP plants are to be executed as per procedure mentioned in O & M manuals and day to day instructions from the Engineer Incharge. Agency should submit all the periodical test reports and log sheet along with bill for the above maintenance contract. The samples should be tested at EPTRI only as per Annexure 2. The Plant are to be operated in round the clock shifts as per the instructions of the Engineer Incharge. The operating staff shall have basic knowledge in operation and maintenance of the Plants. The well experienced engineer & operators have to be arranged in round the clock operations to run the plants to the satisfaction of the BHEL.	One Month	12	Rs. 17,270.33	Rs. 2,07,243.96
1.a	The agency has to deploy the following staff to attend to the Effluent Treatment and maintenance of Final Effluent Treatment Plant (An-1) located at K Gate Detailed Scope of work, design of the plant and testing of effluent plants parameters are enclosed vide scope of work document, annexure 1,2. The agency has to monitor and log the parameters continuously and use dosing/process chemicals to achieve the desired results. The supply of dosing/Process chemicals are in the scope of the agency. The day to day operation and maintenance of the ETPs in round the clock shifts (3 Shifts). The operators shall have the thorough knowledge in operation, maintenance, effluents and handling the dosing/process chemicals				
1.b	The agency has to supply all the required dosing/Process chemicals as per the process indicated in Annexure 1 to achieve the desired results. The agency has to maintain minimum Two months stock of chemicals for smooth functioning of the Effluent Treatment Plants.				
1.c	The parameters for treated effluents from ETPs should be with in the prescribed limits as stated in General Standards for Discharge of Environment Pollutents (Ref :Schedule VI of Environmental Protection Rules 1986 with latest amendments).				

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SNo.	Description	Unit	Qty	Unit Rate	Amount
1.d	The Inlet effluent samples, treated outlet samples and sludge samples have to be Tested periodically at EPTRI only as per Annexure 2/ Instructions of the Site Engineer and Test reports have to be submitted for release of payments.				
1.e	The agency shall maintain the log books for the Effluent Plant and submit the same for verification every day. Any deviation in maintaining the log books or process will be viewed very seriously.				
1.f	Mini Chemical lab has to be maintained by the agency at ETP to check the quality and parameters of inlet effluents and outlet treated effluents/water. The agency shall maintain portable PH meter, TDS meter to check the parameters. The agency shall test the inlet effluents and add dosing/process chemicals accordingly. The Treated Effluents from ETP/ chamber shall be tested and released only after satisfactory results prescribed by BHEL/National standards/Applicable acts and rules. The agency shall have thorough knowledge in treatment of pollutants and related Acts& rules to meet the Telangana PCB norms.				
1.g	The agency shall regularly inspect and clean the Tanks, chambers, sludge beds and debries around the ETP. The sludge from main ETP shall be removed once in two months/or as directed by Engineer and shift the same to a safe location in BHEL by engaging Tractor/mini van.				
1.h	The agency should take whole responsible for operation and maintenance of the ETPs during the contract period and any over flow/failure to attend the work/ discharge of un-treated effluents will be viewed very seriously.				
1.i	The sludge from main ETP shall be removed once in two months/or as directed by Engineer and shift the same to a safe location in BHEL by engaging Tractor/mini van.				
1.j	The safety of the operating staff is the whole responsibility of the agency and the agency has to periodically issue safety gloves, masks, uniform, helmets, hand washing soaps and other PPEs etc.				
2	Supply of material for ETP located near K-Gate.				
2.a	Supply of 2" PVC Ball Valve - 5 each				
2.b	Supply of 1 1/2" PVC Ball Valve - 5 Each				
2.c	Supply of 110 mm PVC Pipe - 35 Rm				
2.d	Supply of 75 mm PVC Pipe - 20 Rm				
2.e	Supply of 3" dia PVC Flexi Hose - 100 R.Ft				
2.f	Supply of Star / Spider Washers - 10 Each				
2.g	PVC 90mm elbow suitable for pipes present in ETP -7 Each				
2.h	PVC 90mm coupling suitable for pipes present in ETP -7 Each				
3	Servicing & winding of 3HP monoblock centrifugal pump set with required standard copper wire as per existing pump specifications etc, completed all as directed by engineer in charge -1 Each				
4	Servicing & winding of 7.5HP to 8HP blower pump set with required standard copper wire as per existing pump specifications etc, completed all as directed by engineer in charge -1 Each				
5	Replacing of the existing Air filter / diffuser suitable to the existing air filters / diffusers of reputed make i.e kirloskar or other equivalent brand of 63 mm with length of 1000mm, fine bubble type etc., as directed by engineer-in charge. - 2 Each				
PART-II (B): Manpower for ETP located near K-Gate.					
1	(a) Skilled operators for operation and maintenance of the ETPs in one of the 3 shifts - 1Nos item rate includes Holiday & Leave wage for1SW (b) Unskilled Operators to assist the above Skilled opeartors in operation and maintenance of the above ETPs in one of the 3 shifts - 2 Nos required. item rate includes Holiday & Leave wage for 2SW For this item out of the 3 mentioned operators, atleast one should be available in each shift.	One month	12	Rs. 39,203.39	Rs. 4,70,440.68
Sub-Total of Part-II					= Rs. 6,77,684.64

Name of work: "Annual Operation & Maintenance of Effluent Treatment Plants (ETP) of Factory".

SNo.	Description	Unit	Qty	Unit Rate	Amount
PART-III (A): O&M, Testing & Material for ETP located at 03 Block and Motor Transport Area					
1	Operation and maintenance of effluent treatment plants after obtaining the desired results / approval from the statutory authorities. All consumables, treatment chemicals & dosing chemicals, repair and maintenance for regular running of Effluent Treatment plants shall have to be borne by the contractor. Periodical monitoring of inlet and outlet samples of ETPs shall be tested at referal laboratory of state govt (EPTRI ONLY).Packing and stacking of dried sludge in the ETP vicinity is in the scope of contractor. The operation and maintenance of the ETP plants are to be executed as per procedure mentioned in O & M manuals and day to day instructions from the Engineer Incharge. Agency should submit all the periodical test reports and log sheet along with bill for the above maintenance contract. The samples should be tested at EPTRI only as per Annexure 5. The Plants are to be operated in round the clock shifts as per the instructions of the Engineer Incharge. The Operating staff shall have basic knowledge in operation and mainteance of the Plants. The well experienced engineer & operators have to be arranged in round the clock operations to run the plants to the satisfaction of the BHEL.	One Month	12	Rs. 13,534.74	Rs. 1,62,416.88
1.a	The agency has to deploy the following staff to attend the Effluent Treatment and maintenance at following ETPs : Effluent Treatment Plant near 03 Block (An-3) and Effluent Treatment Plant at Motor Transport area (An-4). Detailed Scope of work, design of the plant and testing of effluent plants parameters are enclosed vide scope of work document, annexure 3,4,5. The agency has to monitor and log the parameters continuously and use dosing/process chemicals to achieve the desired results. The supply of dosing/Process chemicals are in the scope of the agency. The staff has to attend the day to day operation and maintenance of the ETPs in round the clock shifts (3 Shifts). The opertors shall have the thorough knowledge in operation, maintenace, effluents and handling the dosing/process chemicals				
1.b	The agency has to supply all the required dosing/Process chemicals as per the process indicated in Annexure 3,4 to achieve the desired results. The agency has to maintain minimum Two months stock of chemicals for smooth functioning of the Effluent Treatment Plants.				
1.c	The parameters for treated effluents from ETPs should be with in the prescribed limits as stated in General Standards for Discharge of Environment Pollutents(Ref :Schedule VI of Environmental Protection Rules 1986 with latest amendments).				
1.d	The Inlet effluent samples, treated outlet samples and sludge samples have to be Tested periodically at EPTRI only as per Annexure 5, Instructions of the Site Engineer and Test reports have to be submitted for release of payments.				
1.e	The agency shall maintain the log books for all the Effluent Plants and submit the same for verification every day. Any deviation in maintaining the log books or process will be viewed very seriously.				
1.f	Mini Chemical lab has to be maintained by the agency at ETPs to check the quality and parameters of inlet effluents and outlet treated effluents/water. The agency shall maintain portable PH meter, TDS meter to check the parameters. The agency shall test the inlet effluents and add dosing/process chemicals accordingly. The Treated Effluents from ETP/ chamber shall be tested and released only after satisfactory results prescribed by BHEL/National standards/Applicable acts and rules. The agency shall have thorough knowledge in treatment of pollutants and related Acts& rules to meet the Telangana PCB norms.				
1.g	The agency shall regularly inspect and clean the Tanks, chambers, sludge beds and debries around the ETPs. The sludge from 03 Block ETP (Cyanide and Chromium streams) has to be packed carefully in sealed box/drums as per the SOP and store in a identified area and records to be maintained.				
1.h	The agency should take whole responsible for operation and maintenance of the ETPs during the contract period and any over flow/failure to attend the work/ discharge of un-treated effluents will be viewed very seriously.				

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SNo.	Description	Unit	Qty	Unit Rate	Amount
1.i	The sludge from main ETP shall be removed once in two months/or as directed by Engineer and shift the same to a safe location in BHEL by engaging Tractor/mini van.				
1.j	The safety of the operating staff is the whole responsibility of the agency and the agency has to periodically issue safety gloves, masks, uniform, helmets, hand washing soaps etc.				
2	Supply of material for ETPs located at 03 block and Motor Transport Area				
2.a	Supply of 75 mm PVC Pipe - 15 RM				
2.b	Supply of 3" dia PVC Flexi Hose -100 R.Ft				
2.c	Supply of Star / Spider Washers - 15 Each				
2.d	PVC 90mm elbow suitable for pipes present in ETP -3 Each				
2.e	PVC 90mm coupling suitable for pipes present in ETP -3 Each				
3	Servicing & winding of 3HP monoblock centrifugal pump set with required standard copper wire as per existing pump specifications etc, completed all as directed by engineer in charge -1 Each				
PART-III (B): Manpower for ETP located at 03 Block and Motor Transport Area					
1	(a) Skilled operators for operation and maintenance of the ETPs in one of the 3 shifts - 1Nos item rate includes Holiday & Leave wage for 1SW (b) Unskilled Operators to assist the above Skilled operators in operation and maintenance of the above ETPs in one of the 3 shifts - 2 Nos required. item rate includes Holiday & Leave wage for 2SW For this item out of the 3 mentioned operators, atleast one should be available in each shift.	One month	12	Rs. 39,203.39	Rs. 4,70,440.68
Sub-Total of Part-III				=	Rs. 6,32,857.56
Total of Part-I, II & III				=	Rs. 16,24,169

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SNo.	Description	Unit	Qty	Unit Rate	Amount
Note:					
1	Risk Purchase : In case the contractor fails to execute the work within the scheduled time or due to any other reasons, BHEL reserves the right to get the same completed through some other party at the risk & cost of the contractor and any additional expenditure incurred due to the same shall be charged to the contractor.				
2	The rates are excluding GST.				
3	The maintenance period is Nil. The security deposit will be released after satisfactory completion of the work and after getting I.R clearance and payment of final bill.				
4	<p>Penalty terms:</p> <p>(a) In the event of delay in supply of goods and or services beyond contractual delivery date, penalty of 0.5% per week or part there of shall be levied on the gross value of work done subject to a maximum of 10% of the gross value of the total work executed. Penalty amount so determined along with GST if applicable thereon shall be recovered.</p> <p>(b) If the contractor fails to deposit the required security deposit or commence the work within the period as per LOI/Contract. The EMD will be forfeited.</p> <p>(c) If the agency fails to commence the work as requested by the department penalty of 0.5% on the gross value of work for weeks delay will be applicable. Penalty amount so determined along with GST if applicable thereon shall be recovered.</p> <p>(d) In case of deployment of less manpower with reference to the scope of work on any day during the tenure of the contract, the penalty @ 1.25 times of daily wage rate (rate published by BHEL HR_IR dept) Per Man-day (USW/SSW/SW as applicable) will be deducted from contractor's payments as certified by Engineer-in-charge. Penalty amount so determined along with GST if applicable thereon shall be recovered.</p> <p>(e) The agency should provide all the required chemicals to achieve the required output parameters as per the directions of Engineer-in-charge at the beginning of each month. Any failure to provide or in case of non-supply of chemicals, penalty shall be levied @ Rs. 1500/- Per week of delay from the scheduled date of supply which will be deducted from contractor's regular bills. Penalty amount so determined along with GST if applicable thereon shall be recovered.</p> <p>(f) Penalty for non-submission of Sample Test Reports: The contractor has to get the samples tested at M/s EPTRI , Gachibowli, Hyderabad as detailed in Annexure -2,5 of NIT. The contractor shall send the required samples for testing by 5th date of each calendar month to the testing agency and shall collect the reports and submit the same to the Engineer in Charge. In case of failure by contractor in this i.e. if the samples are not sent by 5th date of calendar month, penalty @ Rs. 1000/- Per week of delay will be deducted from contractor's payments. Penalty amount so determined along with GST if applicable thereon shall be recovered.</p> <p>(g) All penalties can be imposed simultaneously.</p>				
5	<p>Taxes: Bidders shall quote their Basic price exclusive of taxes. The applicable taxes on supply of material or services, as the case may be viz.GST shall be quoted separately, clearly showing the Service Code/Tariff Head, Rate of Tax and Amount of Tax in the Bid. The reimbursement of taxes to the contractor is contingent upon fulfilment by the contractor of all statutory provisions as stipulated in the relevant taxation statute enabling BHEL to avail the eligible input tax credits. TDS at the rates prescribed under Income Tax Act shall be deducted from the payments due to Contractor and BHEL shall issue the necessary TDS Certificates for such deductions made.</p>				
6	The tender % age quoted by the contractor shall be inclusive of all taxes and duties other than GST as applicable from time to time.				
7	All the bills of the contractors will be cleared subject to the production of clearance certificate by the contractors in respect of compliance of all statutory requirement, issued by IR section of HR department BHEL.				
8	The agency shall submit the I.R. clearance certificate for the above work and arrange to get the final bill sent to Finance within one month from the actual date of completion of work.				
9	The agency has to pay the minimum wages to workers with statutory payments like ESI, PF etc., is as per BHEL notification and as per NIT. For USW= ₹ 550.39, SSW= ₹ 587.73, SW = ₹ 623.54 + ESI + PF + PPE's and other statutory if any increase in future DA is to be borne by the agency.				
10	The agency has to bring police clearance certificate for the work force.				
11	All the terms and conditions of the contact with respect to taxes & duties are subject to the new taxation laws introduced from time to time (e.g. GST). The terms and conditions will be modified in accordance with the provisions of new laws (e.g. GST).				
12	Payment shall be made stage wise on approval from engineer in charge				
13	Vendor shall raise GST invoice on BHEL Hyd GSTIN.				
14	If BHEL is unable to avail the input tax credit, the same amount shall be recovered from the vendor bills.				
15	Items Part-II (A) and Part-II (B) i.e., Operation & Maintenance of the ETP situated near K-Gate beside BHEL Apprentice Hostel is to be operated uninterruptedly till written communication "to stop its operation" is received from HSE Dept.				

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SNo.	Description	Unit	Qty	Unit Rate	Amount
<u>GST CLAUSES</u>					
Following points to be complied with :					
16	In case GST credit is delayed/denied to BHEL due to non/delayed receipt of goods and/or tax invoice or expiry of timeline prescribed in GST law for availing such ITC, or any other reasons not attributable to BHEL, GST amount shall be recoverable from vendor along with interest levied/leviable on BHEL.				
17	In case vendor delays declaring such invoice in his return and GST credit availed by BHEL is denied or reversed subsequently as per GST law, GST amount paid by BHEL towards such ITC reversal as per GST law shall be recoverable from vendor/contractor along with interest levied / leviable on BHEL.				
18	The bidder shall arrange to send to BHEL, Hyderabad along with all the required documents as in Purchase Order, Tax Invoice (Original for Recipient) along with his bills.				
19	Vendor to ensure correct applicability of IGST/CGST/SGST/UTGST based on the Inter /Intra state movement Supply of goods and services or both.				
20	Taxes and duties prevalent on the contractual delivery date or the actual delivery date (in case of delay) whichever is lower shall be applicable paid. Composition Scheme to be addressed.				
21	Vendor shall note that the Invoice has to be raised quoting HSN Code of Goods or Accounting Code of Services or both wherever applicable.				
22	Invoice should mention BHEL-HPEP-HYDERABAD GSTIN: 36AAACB4146P1ZG or GSTIN of BHEL Nodal Agency as mentioned in PO.				
23	In case of any short supply of goods or service Vendor has to raise a credit note for short supplied quantity as per GST provisions.				
24	Any GST liability arising on BHEL under reverse charge before actual receipt of goods and or services and/or invoice thereof would be subject to recovery of interest leviable for the period between the date of such liability and actual date of eligibility of ITC based on receipt of goods, receipt of invoices and other conditions specified in GST law, as applicable.				
25	Supplier shall mention their GST registration number in all their invoices and invoices shall be in the format as specified/prescribed under GST laws. Invoices shall necessarily contain Invoice number (in case of multiple numbering system is being followed for billing like SAP invoice no, commercial invoice no etc., then the Invoice No which is linked/uploaded in GSTN network shall be clearly indicated), item description as per PO, Quantity, Rate, Value, applicable taxes with nomenclature (like IGST, SGST, CGST & UTGST) separately, HSN/ SAC Code, etc.				
26	A declaration to the effect that all tax liability as per GST rules and regulations shall be discharged.				

Tender %	In figure	In words
Excess		
Less		
At par with Estimated value		

Note : The bidders are required to quote the tender value on percentage (%) basis at excess or less or on par with estimated value in figures and words. Bidders are requested to fill only one row.