

# RAJKOT MUNICIPAL CORPORATION

e-TenderNo.: **RMC/AMRUT/2018/WW/50MLD WTP/GETCO CHOWKDI [2<sup>ND</sup> Attempt]**



## Tender Documents For ENGINEERING, PROCUREMENT, CONSTRUCTION, COMMISSIONING AND 5 YEARS OPERATION & MAINTENANCE OF 50MLD CAPACITY WATER TREATMENT PLANT AT GETCO CHOWKDI, MAVDI, RAJKOT

### VOLUME-IV FINANCIAL BID

**FEBRUARY-2019**

:: Milestone dates of e-Tendering ::	
1. Downloading of e-Tender documents	08-02-2019 to 19-03-2019 up to 17.00 Hrs.
2. Pre-bid Meeting (Queries also to be submitted by e-mail ID <a href="mailto:mrkamalia@rmc.gov.in">mrkamalia@rmc.gov.in</a> & <a href="mailto:sapsint_srt@sapient.net.in">sapsint_srt@sapient.net.in</a> Before 16-02-2019 up to 13:00 Hrs.)	18-02-2019 at 11.00 Hrs. at Central Zone Office -RMC
3. Online submission of e-Tender	19-03-2019 up to 18.00 Hrs.
4. Physical submission of EMD, Tender fee, Documents required for pre-qualification and other necessary documents.	21-03-2019 up to 18.00 Hrs
5. Verification of submitted documents (EMD, Tender fee, Documents required for pre- qualification and other Necessary documents.)	22-03-2019 AT 10.30 Hours onwards
6. Opening of online Primary Bid (Technical Bid)	25-03-2019 at 10.30 Hrs. onwards
7. Opening of online Commercial Bid (Price Bid) for technically qualified bidders only.	08-04-2019 at 10.30 Hrs. onwards (If possible)
8. Bid Validity	180 Days

  
413, TrinityCyygnus, Nr. Someswar  
BRTS Junction, University Road, Vesu  
Surat – 395009 (Gujarat – India)  
Tel: +91 261 2974000 / 2974111  
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**Add. City Engineer [CZ],  
Water Works (Projects),  
Rajkot Municipal Corporation, Central Zone  
Dr. Ambedkar Bhavan, Dhebarbhai Road  
Rajkot-360 001.  
Tel.: +91 97145 03709**

## INDEX

<b>Sr. No.</b>	<b>Particulars</b>
1.0	Form of Price Proposal
2.0	Appendix to Price Proposal
3.0	Price Schedule – A
4.0	Price Schedule – B
5.0	Price Schedule – C
6.0	Price Schedule – D

## FORM OF PRICE PROPOSAL

Bidders are required to fill up all blank spaces in this Bid Form

To:

**The Municipal Commissioner,  
Rajkot Municipal Corporation,**  
Central Zone, Dr. Ambedkar Bhavan,  
Dhebarbhai Road, Rajkot-360 001  
Gujarat, INDIA.

- SUB : (1) Engineering, Procurement, Construction (EPC), Testing, Commissioning of 50MLD Capacity Water Treatment Plant (WTP) at Getco Chowkdi, Mavdi, Rajkot along with all related Mechanical and Electrical equipments and accessories, Instrumentation including Miscellaneous works etc. complete.
- (2) Operation and maintenance of entire water works facility (50MLD Water Treatment Plant including Treated Water Sump & Pump House) for Five years after satisfactory commissioning, trial run & acceptance of above entire water works facility.

We have examined the Conditions of Contract, Employer's Requirements, Schedules, Addenda Nos. \_\_\_\_\_ and the matters set out in the Appendix hereto. We have understood and checked these documents and have not found any errors in them. We accordingly offer to design, execute commission and to comprehensively maintain for the Five years the said Works and remedy any defects, fit for purpose in conformity with these documents and the enclosed Proposal, for the fixed lump sum of Rs. \_\_\_\_\_ or other such sums as may be determined in accordance with the terms and conditions of the Contract. The above amounts are in accordance with the Price Schedules herewith and are made part of this bid.

We confirm our agreement with the appointment of Dispute Adjudication Board of General Condition of Contract.

We agree to abide by this Bid until 180 days and it shall remain binding upon us and maybe accepted at any time before that date. We acknowledge that the Appendix forms part of our Bid.

If our bid is accepted, we will provide the specified performance security, commence the Works as soon as reasonably possible after receiving the Employer's Representative's notice to commence, and complete the Works in accordance with the above-named documents within the time stated in the Appendix to Technical Proposal.

Unless and until a formal Agreement is prepared and executed, this Bid, together with your written, acceptance thereof, shall constitute a binding contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

We are, Gentlemen  
Yours faithfully

Signature \_\_\_\_\_ in the capacity of \_\_\_\_\_ duly authorized  
to sign bids for and on behalf of

Address

\_\_\_\_\_

\_\_\_\_\_

Date \_\_\_\_\_

**APPENDIX  
TO  
PRICE PROPOSAL**

**APPENDIX TO PRICE PROPOSAL**  
**Conditions of Contract**

Employer's name and address	<b>The Municipal Commissioner, Rajkot Municipal Corporation, Central Zone, Dr. Ambedakar Bhavan, Dhebarbhai Road, Rajkot-360 001 Gujarat, INDIA.</b>
Contractor's name and address	_____ _____ _____ _____
Phone No. :	
Fax No. :	
E-mail :	
Time for notice to commence	7 Days
Name and address of the Employer's Representative/Engineer	To be nominated by Employer at the time of Award of Contract
Time for Completion of construction of Works	<b>18 months including monsoon period and 3 months successful trial run and acceptance of plant.</b>
Validity Period of Tender Offered	180 days from the last date of receiving of the Tender.
Defects liability period	<b>60 months after commissioning and issue of certificate of Completion.</b>
Period for O & M Contract	Five years from the date of issue of certificate for completion / taking over certificate
Language for communications	English / Gujarati
Electronic transmission systems	
Confidential Details	_____ _____ _____ _____
Currency of all payments	Indian Rupees

Bidders' stamp & initials

Amount of insurance for work	Total cost of work
Amount of third party insurance	As per law per occurrence, number of occurrences: Upto Defect Liability Period
Periods for submission of insurance	Up to contract period till completion of O&M
Evidence of insurance	30 days from commencement date
Relevant policies	60 days -do-
Number of members of Arbitral Tribunal	As per the Arbitration and Conciliation Act 1996, India along with its latest amendments.
Members of Dispute Adjudication Board (if not agreed) to be nominated by	
Arbitration rules	
Language of arbitration	English / Gujarati
Place of arbitration	Rajkot
Procedural Law	Indian as governed by the Arbitration and Conciliation Act, 1996, India and its latest amendments.
Limit of Retention Money	10 % of the construction contract price. (5 % S.D. + 5 % to be recovered from bill)
Payments in Local Currencies	In Indian Rupees
Time for access to the Site	Within 15 days from the date of Letter of Work Order Acceptance / Letter of Intent
Amount of performance security	5% of contract price
Damages for delay	0.1 % per day with limit as 10 % of the Construction Contract Price
Deductions of Labour Cess	: 1 % of contract price for construction workers welfare fund from all R.A. Bills & final Bill.
Deductions of Income Tax	: % as applicable of contract price from all R.A. Bills & final Bill.
Deductions of Material Testing Expenses.	: The material testing fee at the rate of 0.5 % shall be deducted from every running bill of the contractor.

### **Note on Schedules**

1. The bid is lump sum bid for design, engineering, procurement, construction, testing, commissioning and operation & maintenance Contract for Water Works / Water Treatment Plant including Clear Water Reservoir & Pump House and Elevated Service Reservoir and all other allied works as specified in tender.
2. The bidder shall quote his firm and fixed lump sum price for the entire work under this Contract, defined in more details in various sections of this bid document.
3. The rates and prices shall be submitted on-line only in the formats given in the on-line Price Schedules A to D. Rates and prices received in any other formats will be rejected and the Bids will be disqualified.
4. It will be entirely at the discretion of the Employer to accept or reject the bidder's design proposal, without giving any reasons whatsoever and the bidder shall not be permitted to withdraw his bid on this account.
5. In Price Schedule-A, bidder shall quote his lump sum price for entire work with break-up for items listed in the schedule. Prices quoted in Schedule-A only will be considered for price evaluation & shall form a part of the Contract Agreement.
6. Items not specifically listed in this Price Schedule B, but required to be executed for satisfactory working of the system as specified, will not be separately paid for by the Employer when executed and shall be deemed to be already covered by other items and rates listed in the price sheets and Lump sum prices quoted in Schedule A.
7. Bidder shall give year-wise break up of cost for O & M in Schedule C.
8. Price Schedule - A along with power loading for 15 Years life cycle cost of guaranteed power declared by the bidder in the Technical Bid will be considered for financial evaluation of the bid.
9. Price Schedules - B shall form the basis to work out a schedule of Interim payments on basis of cost during construction with the successful bidder.
10. Schedule 'D' gives the basis of interim payment during construction of various works under this contract on basis of percentage. This also depicts maximum amount payable at interim stage.
11. The bidder shall be deemed to have allowed in his price for provision, maintenance and final removal of all temporary works of whatsoever nature required for construction including temporary bunds, diverting water, pumping, dewatering etc. for the proper execution of works. The rates shall also be deemed to include any works and setting out that may be required to be carried out for laying out of all the works involved.



12. Prices shall be entered online only. Where there is a discrepancy between the unit rates and the amount entered, the latter shall govern.
13. The Price Schedules are to be read in conjunction with the Conditions of Contract, the Specifications and other sections of these bid documents and these documents are to be taken as mutually explanatory of one another.
14. Prices quoted by the bidder shall be firm for the entire period of Contract **without any escalation**.
15. The bidder shall interpret the data furnished and carry out any additional survey work, or investigation work required at his own cost. Bidder shall carry out raw water analysis at his own cost to arrive at design criteria to ensure successful and satisfactory performance of the WTP and it is sole responsibility of the contractor to give performance guarantee for the WTP.
16. The prices quoted shall also include the cost of materials utilized for testing.
17. The bidder should acquaint himself with the site conditions including the access to Worksite. The successful bidder shall have to make suitable access to worksites at his own cost. These accesses will be used by the other contractors working for RMC.
18. The rates should be quoted inclusive of all taxes, duties, work contingencies, etc.
19. **Break-up of payment** given in Part 1, Schedule D is for general guidance only. This stipulates maximum limit for a particular component for interim payment purpose. Item-wise/ Unit-wise payment shall be made as per Part 2, Schedule D in accordance with the progress/ stage.
20. 10% of the construction contract value will be paid as a **mobilization advance** with 10% simple interest per annum against bank security in form of Bank Guarantee of any scheduled bank except cooperative bank equivalent to 10% of construction contract price in favour of Municipal Commissioner, Rajkot Municipal Corporation, Rajkot.
21. **Project Vehicle:** One brand new 7 seat vehicle of latest make with A.C. shall be provided to the employee of RMC for site supervision of the work. The cost of running, maintenance, fuel, driver salary, insurance with sole responsibility etc. complete will be borne by the contractor. The vehicle shall be required in any area within Rajkot City & RUDA limits / area and at site of WTP Project for the use of Water Supply / Water Project Department. The vehicle shall run throughout the construction contract period including trial run period and including Sundays & holidays. The vehicle must be handed over to RMC as soon as the work order is issued till the completion of the construction & commission of WTP plant work. A penalty of Rs. 1,200/day shall be levied and deducted from RA Bill / Deposit of contractor for not providing vehicle as stipulated.

22. Material Testing: Necessary material testing shall be carried out by contractor in presence of RMC engineers at Govt. approved laboratory at his own cost as directed by Engineer-in-charge. The material testing fee at the rate of 0.5% shall be deducted from every running bill of the contractor. This does not relieve contractor from his contractual obligations of making all arrangements for taking samples during each concreting, curing for the specified period as per specifications, bring to the laboratory and keeping the necessary records as directed.
23. Bidder shall note that RMC shall appoint PMC/TPI agency for supervision of this work and fees pertaining to same shall be borne by RMC.
24. Inspection and Tests: The purchaser (client) or its representative shall have the right to inspect and / or to test the Goods for confirm their conformity to the Contract. The special conditions of the contract and / or the Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. If not specified or notwithstanding any mention, the contractor shall submit the inspection plan of all major bought-out items for approval with client specifying the stages of inspection as per manufacturer's quality plan and shall arrange to carry out the inspection along with client or it's representative at manufacturer's works as per the approved plan. The Purchaser shall notify the Contractor in writing of the identifying of any representatives retained for these purposes. All the expenses viz. lodging & boarding, transportation, all facilities as required for this purpose shall be borne by the successful bidder for up to two persons of client / client's representative (PMC/TPI).
25. The bidder shall note that timely completion of this important work is of essence in meeting the overall schedule of completion of work under this water supply / water treatment project.
26. The bidder shall have to identify various risks involved in this work and shall accordingly frame the methodology for constricting the same.
27. It will be entirely at the discretion of the Owner to accept or reject the bidder's proposal, without giving any reasons whatsoever.
28. The bidder shall interpret the data furnished and carry out any additional survey work, or investigation work required at his own cost.
29. From each Running Account Bill, labour cess, Income Tax, GST, Professional Tax and other taxes prevailing from time to time will be deducted as per norms.
30. The contractor shall have to avail P F Code as per the prevailing Circular of Government for the employees on work. The required documents shall have to be submitted by the contractor to the competent authority.
31. The contractor shall have to get registered under ESI (Employer's State Insurance) Act and obtain ESI Registration number if the number of workers are 10 Nos. or more. Also, the agency shall have to give all the benefits to the

workers as available under the ESI Act. The agency should follow all the rules and regulations of ESI Act as per prevailing norms.

32. The quoted rates should be inclusive of all taxes and duties.
33. The prices shall have to be quoted firm & fix including all the taxes & duties without any statutory variation. RMC will not consider any statutory variation as well as the price rise in the market and if any, those shall be on account of contractor.
34. During construction activity, proper care must be taken for labour safety and all the provisions of the labour laws must be followed by the contractor.

For any type of license regarding labour etc. has to be achieved by agency

35. Testing of the raw materials & finished products like Bricks, Sand, Aggregate, Reinforcement, structural steel, etc. should have to be tested periodically as suggested by the Engineer-in-charge at government approved material testing laboratory and testing charges for the same has to be borne by the contractor.
36. The contractor shall have to carry out the sub-soil strata investigation at his own cost.
37. **This office Circular bearing No. RMC/C/329 dated 22-12-2012 and Order No. RMC/C/132 dated 10-06-2013 are uploaded in tender document.** The bidders quoting their rates shall have to read, implement, and submit the same duly signed along with the documents to be submitted during physical submission.
38. In reference to the above Circular and Order cited above, the bidder's firm who has quoted their rates for this work will be called in person for verification of original documents. The date and time for verification of original documents will be intimated to the bidders separately.
39. In case of any ambiguity found in specifications / drawings etc., the decision of engineer-in-charge shall be final and binding to the contractor.

40. **Issue of Certificate for Completion of Works / Taking Over Certificate:**  
As soon as the work is completed, the Contractor shall give a notice of such completion to the Employer and on receipt of such notice, the Engineer-in-Charge shall inspect the work, and if he is satisfied that the work is completed in all respects then department will issue a certificate for completion of works / taking over certificate.

For the purpose of obtaining certificate for completion of works and enable employer to take over the plant following procedure shall be adopted:

- a) Contractor, having satisfied himself after commissioning and commencing the trial runs to stabilize the process / plant, which is expected to take a maximum of 3 months period, will intimate by providing minimum 7 days advance notice to the engineer-in-charge to witness performance guarantee run (PGR) of the plant during the

construction phase of project. The performance guarantee run shall be of 72 hours duration on round the clock basis during which it is the responsibility of the contractor to demonstrate satisfactory performance of equipment / process, compliance of treated water parameters, power and consumption of chemicals within guaranteed limits to the satisfaction of engineer-in-charge or his authorized representative(s). Raw Water and Power during Performance Guarantee run shall be supplied free of cost by employer.

As the plant is designed for treating raw water to meet the demand in future years, it is understood that the amount of treated water demand at the time of commissioning may be lower than design capacity and in case of client not able to arrange raw water or take supply of treated water as per full capacity of plant in order to carry out testing of WTP at full capacity, the testing shall be carried out based on available raw water quantity or demand of treated water at the time of testing / PGR.

- b) Employer having satisfied himself that the work is completed in all respects and plant having commissioned successfully after successful completion of Performance Guarantee Run will issue a certificate for completion of works / taking over certificate. However, if the plant is observed to fail in any respects during the performance guarantee run, for no fault of employer, the contractor shall at his expense carry out necessary rectification / modifications and re-offer the performance guarantee run to the engineer-in-charge at the earliest instance but in any case not later than 15 days from the date of last PGR. Further, in case of any partial / minor failure observed with individual equipment(s), subject to not affecting the final guaranteed results, it is the discretion of engineer-in-charge to accept the plant for the purpose of commencing O&M period subject to the condition that contractor shall carry out necessary rectification and re-offer the PGR, within 15 days from the date of notification to carry out rectification by engineer-in-charge, for the particular equipment / process to the satisfaction of engineer-in-charge. Failure to do so will lead to non-acceptance of the plant and non-commencement of O&M period.
- c) Contractor to further note that in case of failure to establish the process and successful performance of the plant during PGR, leading to non-acceptance of plant by the engineer-in-charge, on two consecutive occasions, the cost of power to conduct any further PGR shall be borne by the contractor.
- d) Failure on the part of contractor to establish and conduct successful PGR within 6 months duration from the date of offering first PGR, and having understood that the contractor has carried out all necessary rectification / modification work at his own cost including replacement of any component as required in order to achieve satisfactory results, will lead to outright rejection of the plant and treated as “default by contractor” as per Clause-3 of this conditions of contract and shall be a sufficient cause for termination of contract and forfeiture of security deposit including amount of performance bond together with value of

the work done but not paid for or any other amounts due to contractor pertaining to this contract and registration of the contractor shall also be kept in abeyance for three years from the date as fixed on all cases.

- e) In the case of adverse operating conditions observed viz. non-availability of raw water or abnormal incoming raw water characteristics during the trial run and PGR consecutively for a consecutive period of 15 days or more, the date of commencement of PGR shall be postponed for a suitable duration or shall be conducted after agreeing to alternative consumption norms and alternative output standards, as the case may be, and mutually agreed between employer and contractor. However, the contractor shall be responsible to maintain the site during this period. In the event of sustained inability to supply raw water for a period of greater than 2 weeks, the responsibilities of contractor shall stay suspended till a maximum of 6 months from the date of intimation of readiness / mechanical completion of plant by contractor. For any further delay beyond 6 months to provide raw water by client, the period proportionate to the delay in supply of raw water shall be deducted from the specified duration of O&M period. However, bidder shall be responsible for providing trial run and performance guarantee run as and when raw water is made available by client and as desired by client and O&M period of balance duration shall commence from the date of takeover / issue of completion certificate by client and payment shall be considered as per the applicable year of O&M.

O&M period shall commence from the date of issue of certificate of completion / taking over certificate.

41. The bidder can utilize the space for Site office, stores, steel yard, Concrete batching plant and labour camp, etc. free of cost near the work site if extra space is available in the WTP plot boundary with prior approval of Engineer-in-charge, RMC otherwise bidder shall have to make such arrangement on his own.
42. During the physical submission the bidder shall have to submit EMD, Tender Fee, Documents required for pre-qualification, Tender Volume I, II, III & IV (Vol IV shall be unpriced, Rate to be quoted on-line only), Addendum, Corrigendum, Minutes of pre-bid meeting, Replies to bidder's queries, and all other necessary documents. All the documents shall be duly signed & stamped by bidder.

**Signature of Contractor**

**Add. City Engineer [CZ]  
(Water Project)  
Rajkot Municipal Corporation**

# **PRICE SCHEDULE –A**

## **GRAND SUMMARY**

**GRAND SUMMARY**  
**Price Schedule - A : (Schedule of Prices)**

Sr. No.	Item	Rate offered in	
		Figures	Words
<b>I)</b>	<b>Construction Phase:</b> Engineering, Procurement, Construction (EPC), Testing, Commissioning of 50MLD Capacity Water Treatment Plant at Getco Chowkdi, Mavdi, Rajkot along with all related Mechanical and Electrical equipments and accessories, Instrumentation including Miscellaneous works etc. complete. (Bidder to fill up <b>Price Schedule-B</b> for Broad Unit wise Break-up) <b>Total Price of (I), in Rs.</b>	To be quoted on-line only	To be quoted on-line only
<b>II)</b>	<b>Operation &amp; Maintenance phase:</b> Operation and Maintenance of entire water works facility (50MLD WTP including Treated Water Sump & Pump House & ESR) for Five years after satisfactory completion and & acceptance of entire water works facility at Getco Chowkdi, Mavdi, Rajkot. (Bidder to fill up <b>Price Schedule-C</b> for Broad Break-up)	To be quoted on-line only	To be quoted on-line only
	i) O&M price for First year	To be quoted on-line only	To be quoted on-line only
	ii) O&M price for Second year	To be quoted on-line only	To be quoted on-line only
	iii) O&M price for Third year	To be quoted on-line only	To be quoted on-line only
	iv) O&M price for Fourth year	To be quoted on-line only	To be quoted on-line only
	v) O&M price for Fifth year	To be quoted on-line only	To be quoted on-line only
	<b>Total Price of (II), in Rs. (i + ii + iii + iv + v)</b>	To be quoted on-line only	To be quoted on-line only
<b>III)</b>	<b>GRAND TOTAL</b> <b>Total Price of ( I + II ), in Rs.</b>	To be quoted on-line only	To be quoted on-line only

**Remark:** O&M Price for each year shall not be less than 2.5% (Two point Five Percent) of the quoted price for construction phase (i.e. total 12.5 % of the quoted price for construction phase for total 5 years of O&M to be quoted as minimum). If it is offered less by bidder, than 2.5% (Two point Five) percent of quoted price of construction phase at (I) above shall be considered for each year of O&M for tender price evaluation and lowest bidder shall be evaluated accordingly. Further in case if bidder has quoted the total O&M cost for five years lower than 12.5% of the quoted price for construction phase than bidder shall be required to furnish bank guarantee for the difference amount (diff. of 12.% of quoted price for construction phase LESS total quoted price of 5 years O&M by bidder for 5 years) as an additional

security to RMC and the same shall be released only after successful completion of five years of O&M.

Signature of Contractor :  
Name  
Company's Seal :  
Date:

**Add. City Engineer [CZ]  
Water Projects  
Rajkot Municipal Corporation**



## **PRICE SCHEDULE –B**

### **UNIT WISE PRICE SCHEDULE FOR CONSTRUCTION PHASE**

**PRICE SCHEDULE - B  
SUMMARY OF SCHEDULE OF PRICE  
(CONSTRUCTION PHASE)**

**RAJKOT MUNICIPAL CORPORATION**

**NAME OF WORK:**

- (1) Engineering, Procurement, Construction (EPC), Testing, Commissioning of 50MLD Capacity Water Treatment Plant (WTP) at Getco Chowkdi, Mavdi, Rajkot along with all related Mechanical and Electrical equipments and accessories, Instrumentation including Miscellaneous works etc. complete.
- (2) Operation and Maintenance of entire water works facility (50MLD Water Treatment Plant including Treated Water Sump & Pump House) for Five years after satisfactory commissioning, trial run & acceptance of above entire water works facility.

**Percentage break-up of lump sum cost shall be quoted by bidder within the following guide line as % of total construction phase cost:**

Sr. No.	Description	Percentage guide line
1.	On approval of Design & Engineering	Max. 2%
2.	Civil Works	55 to 65 %
3.	Inter connecting Piping Works	6 to 7 %
4.	Mechanical works.	15 to 20 %
5.	Electrical works	10 to 15 %
6.	Instrumentation works	4 to 6 %
7.	Trial Run & Testing	Min. 0.5%
	Total	100%

**IMPORTANT NOTE FOR BIDDERS:**

Bidders shall give major break-up of the lump sum prices already quoted for Construction Phase in Price Schedule-A here as per below and in line with Percentage break-up of lump sum cost to be within the above guidelines for each of the discipline / activity of works. The bidders shall fill up major break-up PRICE SCHEDULE – B with utmost care and ensuring reasonable accuracy and covering all components / equipment with consideration of each segment design and rate analysis & as per tender requirements and specifications If the major break-up PRICE SCHEDULE – B submitted by bidder is not found appropriate with consideration above percentage guidelines or quoted with zero price or quoted blank price schedule in all such cases RMC reserves right to obtain revised price break of successful bidder in line with detailed engineering and tender requirements without giving any reason and bidder is deemed to have accepted this condition the actual payment shall be made by RMC based on the revised price break-up submitted by successful bidder and as approved by RMC with required changes as needed in the opinion of RMC and bidder shall have no objection to the same.

Comment [RS1]:

**Construction, Supply & Erection (Break-up for Civil, Piping, Mechanical, Electrical & Instrumentation Works)**

Sr. No.	Particulars	Civil Works (Fig.)	Piping Works (Fig.)	Mech. Works (Fig.)	Elect. Works (Fig.)	Instru. Works (Fig.)	Total Amount in Figure Rs.	Total Amount in Words Rs.
		( I )	( II )	( III )	( IV )	( V )	VI = ( I + II + III + IV + V )	VII = ( I + II + III + IV + V )
1	On approval of Design & Engineering (Max. 2% of Construction Phase Cost of Project)						To be quoted on-line only	To be quoted on-line only
2	Incoming Raw Water Piping System with valve / valve chamber, etc. up to WTP Stilling Chamber						-- Do --	-- Do --
3	Stilling Chamber						-- Do --	-- Do --
4	Parshall Flume						-- Do --	-- Do --
5	Dist. Chamber & Flash mixer						-- Do --	-- Do --
6	Clariflocculator						-- Do --	-- Do --
7	Filter House with overhead B/W Tank						-- Do --	-- Do --
8	Chlorine contact tank and chlorination room						-- Do --	-- Do --
9	Clear Water Reservoir Comp-I and Pump House cum Main LT Room						-- Do --	-- Do --
10	Clear Water Reservoir Comp-II						-- Do --	-- Do --
11	Elevated Service Reservoir						-- Do --	-- Do --
12	Dirty Water Sump & Pump House						-- Do --	-- Do --
13	Sludge Thickener						-- Do --	-- Do --
14	Centrifuge Feed Sump & Pump House						-- Do --	-- Do --
15	Centrifuge Building including DWPE Dosing System						-- Do --	-- Do --
16	Filtrate Sump & Pump House						-- Do --	-- Do --
17	Chemical cum Admin. Building						-- Do --	-- Do --
18	Air Blower Room						-- Do --	-- Do --
19	Guard Room						-- Do --	-- Do --
20	HT Sub Station (HT Switchyard, Tx. Yard, HT Room , DG Otta / Foundation)						-- Do --	-- Do --
21	Site Filling / Site Grading						-- Do --	-- Do --
22	Compound Wall						-- Do --	-- Do --
23	Roads, Pathways & Street Lighting						-- Do --	-- Do --

Bidders' stamp & initials

24	Site Drainage / Water Channel for Surface Drain							
25	Pipe Culvert, Gardening / Landscaping, Drinking/Service Water, etc.						-- Do --	-- Do --
26	Any Other to complete work In All Respects / Any Other Unforeseen Works						-- Do --	-- Do --
27	Trial Run, Testing & Commissioning of entire Plant (Min. 0.5% of Construction Phase Cost of Project)						-- Do --	-- Do --
	<b>TOTAL PRICE, IN RS. <math>\Sigma</math>(1 to 27)</b>	$\Sigma$ (1 to 27) of (I)	$\Sigma$ (1 to 27) of (II)	$\Sigma$ (1 to 27) of (III)	$\Sigma$ (1 to 27) of (IV)	$\Sigma$ (1 to 27) of (V)	$\Sigma$ (1 to 27) of (VI)	

Signature of Contractor :  
Name

**Add. City Engineer [CZ]  
Water Projects**

Company Seal  
Date:

**Rajkot Municipal Corporation**

**PRICE SCHEDULE –C**

**O & M COST SCHEDULE**

## O & M COST SCHEDULE – C

### ABSTRACT OF O & M COST

Sr. No	O & M Period	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	Total
<b>A</b>	<b>Fixed Cost</b>	-----	-----	-----	-----	-----	----- -
1.	Man Power ,in Rs.						
2.	Maintenance of office building, civil structure / units including Laboratory, Preventive Maintenance of Electro-mechanical works including lubricants & consumables, etc., in Rs.						
	<b>SUB-TOTAL of A in Rs. (A=1+2)</b>						
<b>B</b>	<b>Variable Cost</b>	-----	-----	-----	-----	-----	----- -
3.	Cost of Chemicals except PAC/Alum & Chlorine, in Rs.						
4.	Maintenance and Repairs including replacement of spares parts, oil & Grease, consumables etc. for all Piping, Electrical, Mechanical, Instrumentation & Automation Equipment works for entire WTP System, in Rs.						
5.	Disposal of sludge including transportation, in Rs.						
	<b>SUB-TOTAL of B in Rs. (B=3+4+5)</b>						
<b>C</b>	<b>TOTAL (C = A + B)</b>						

**Note:**

1. O&M cost above shall be inclusive of cost of supply of all rest Chemicals except for PAC/Alum & Chlorine, supply of manpower, repairs and maintenance of all units, spares, consumables, services of any expert as required, laboratory analysis including laboratory ware and chemicals, and any other work required for smooth operation and maintenance of entire facility. PAC/Alum and Chlorine shall be free supply by employer at any one location with plant premises and any unloading, handling / internal transfer, etc. as well loading of empty chlorine tonners in vehicle of employer shall be considered by bidder in their scope.
2. Raw Water & Power shall be supplied by employer.
3. Cost of obtaining approval from statutory body for transportation & storage (if required) etc. charges for Chlorine, Alum etc. shall be in scope of contractor.
4. Variable cost shall be paid on monthly basis based on total MLD of water actually treated in a month on proportionate basis against the quoted amount for a particular year considering 18250 MLD of treated water to be produced per annum as per design and subject to

maximum payment in a year not exceeding the quoted amount for that particular year of O&M.

5. Disposal of solid waste (sludge, etc.) generated within water works premises shall be disposed suitably within 10km radius at site identified by employer and entire cost pertaining to the same shall be considered by bidder in their scope.

Signature of Contractor :  
Name  
Company Seal  
Date:

**Add. City Engineer [CZ]  
Water Projects  
Rajkot Municipal Corporation**

**PRICE SCHEDULE – D**

**BREAK UP OF PAYMENT  
SCHEDULE**



## SCHEDULE - D

### PREAMBLE

1. As mentioned in the Conditions of contract, the Contract being a lump sum type turnkey Contract on EPC basis, the provision of measurement will be applicable only for the assessment of value of work done for inclusion in any interim certificate for part payment to the Contractor.
2. The Schedule specifies the procedure for all such assessment of the items for Civil/Piping/Mechanical/Electrical/Instrumentation works specified in Schedule B.
3. Each item of Schedule B has been divided into broad components. The Employer's Representative shall assess the value of each component as indicated in paragraph 6 herein below.
4. Percentages are indicated against each component of each item of Civil Mechanical/Electrical/Instrumentation works specified in Schedule B, based on the Employer's best appreciation of the value of the component as related to the total costs of the concerned item as whole. A head titled (any other unforeseen work(s) / item(s)) is included in each breakdown of schedule and **the tenderer shall at the time of tendering indicate any additional items which he considers necessary but cannot be covered by any of the heads indicated in the breakup.**
5. The percentage breakup as indicated in the Schedule may differ from that corresponding to the tenderer's scheme and design and he should take this into account while quoting his lump sum prices for the items specified in Schedule-B
6. The contractor shall, **after approval of his detailed hydraulic as well as structural designs and drawings, furnish to the Employer's Representative an initial bill of quantities to all major items, to be reviewed and updated periodically with the Employer's Representative.** This bill of quantities will be used **for assessment of percentage progress of the component at any stage.** By measurement jointly taken by the Employer's Representative and the Contractor, **mutually agreed and entered in the measurement books in the form and by the method approved by the Employer's Representative, and signed jointly by both the parties**
7. The payment on running bills & final bill will be regulated as per percentage shown in each item.
8. 5% amount of all running bills shall be recovered and kept as retention money and shall be released as per tender.
9. Percentage (%) of total cost means cost quoted in Schedule-B and finally approved by the employer.

**SCHEDULE OF MILE STONE PAYMENT**

**D1/1 MILE STONE PAYMENT BREAK-UP FOR CIVIL WORKS**

<b>Sr. No.</b>	<b>Item Description</b>	<b>Percentage Mile Stone Payment</b>
<b>1.</b>	<b>WATER RETAINING STRUCTURES ABOVE GROUND EXCEPT ELEVATED SERVICE RESERVOIR (ESR)</b>	
a.	On completion of Excavation, PCC, Footings	15%
b.	On completion of Base slab / Raft	20%
c.	On completion of 50% Side Walls	20%
d.	On completion of 100% Side Walls	20%
e.	On completion of Finishing Items	10%
f.	On completion of Hydraulic Test	10%
g.	On testing, commissioning and trial runs	5%
<b>2.</b>	<b>BELOW GROUND WATER RETAINING STRUCTURES</b>	
a.	On completion of Excavation, PCC	15%
b.	On completion of Raft Slab / Footings	20%
c.	On completion of 50% Side Walls	20%
d.	On completion of 100% Side Walls	20%
e.	On completion of Finishing Items	10%
f.	On completion of Hydraulic Test	10%
g.	On testing, commissioning and trial runs	5%
<b>3.</b>	<b>BELOW GROUND WATER RETAINING STRUCTURES WITH SUPER STRUCTURE (PUMP HOUSE, ETC.)</b>	
a .	On completion of Excavation, PCC	10%
b.	On completion of Raft Slab / Footings	15%
c.	On completion of 50% Side Walls	20%
d.	On completion of 100% Side Walls	20%
e.	On completion of Column/Beam up to Roof Slab	5%
f.	On completion of Roof Slab	5%
g.	On completion of Masonry in super Structure	5%
h.	On completion of Finishing, Flooring & Misc. Items	5%
i.	On completion of Hydraulic Test	10%
j.	On testing, commissioning and trial runs	5%
<b>4.</b>	<b>DOUBLE STOREY BUILDINGS</b>	

<b>Sr. No.</b>	<b>Item Description</b>	<b>Percentage Mile Stone Payment</b>
a.	On completion of Excavation, PCC	10%
b.	On completion of Plinth Level	10%
c.	On completion of Column/Beam up to First Floor Slab	10%
d.	On completion of First Floor Slab	10%
e.	On completion of Column/Beam up to Second / Roof Floor Slab	10%
f.	On completion of Second / Roof Floor Slab	10%
g.	On completion of Masonry in super Structure (GF)	10%
h.	On completion of Masonry in super Structure (FF)	10%
i.	On completion of Flooring (GF & FF)	10%
j.	On completion of Misc./Finishing Items	5%
k.	On testing, commissioning and trial runs	5%
<b>5.</b>	<b>SINGLE STOREY BUILDINGS</b>	
a.	On completion of Excavation, PCC	10%
b.	On completion of Plinth Level	20%
c.	On completion of Column/Beam up to First Floor / Roof Slab	15%
d.	On completion of First Floor/Roof Slab	20%
e.	On completion of Masonry in super Structure	15%
f.	On completion of Misc./Finishing Items	15%
g.	On testing, commissioning and trial runs	5%
<b>6.</b>	<b>ELEVATED SERVICE RESERVOIR (ESR)</b>	
a.	On completion of Excavation, PCC, Footings	10%
	On completion of Column & beam/shaft, staircases, etc. from ground level upto the required level	15%
b.	On completion of Bottom Dome & Platforms (with railing)	15%
c.	On completion of 100% Side Walls of Container	20%
d.	On completion of Bottom Dome	15%
e.	On completion of Finishing Items, Fixing of required Pipes, etc.	10%
f.	On completion of Hydraulic Test	10%
g.	On testing, commissioning and trial runs	5%
<b>MISCELLANEOUS WORK</b>		

<b>Sr. No.</b>	<b>Item Description</b>	<b>Percentage Mile Stone Payment</b>
<b>7.</b>	<b>ANY OTHER TO COMPLETE THE WORK IN ALL RESPECTS / ANY OTHER UNFORESEEN WORKS</b>	
a.	On 50% completion of Work	45%
b.	On 100% completion of Work	50%
c.	On testing, commissioning and trial runs of all other works	5%

Signature of Contractor :  
Name  
Company Seal  
Date:

**Add. City Engineer [CZ]**  
**Water Projects**  
**Rajkot Municipal Corporation**

**D1/2, 3, 4, 5 Mile Stone Payment Breakup for Piping, Mechanical, Electrical & Instrumentation works along with spares as specified**

<b>No.</b>	<b>Items</b>	<b>Percentage Mile Stone Payment</b>
1.	On supply of equipment, pipes, specials, valves, accessories, instruments etc. including spares at site, after inspection, along with literature, drawings, operating pamphlets, manual etc. as required.	70%
2.	On erection of all equipment, pipes, specials, valves, instruments and necessary accessories including installation of mechanical / electrical / instrumentation system / equipment, cabling, etc. complete.	15%
3.	On Erection / Installation of Complete Plant & No load trial run	10%
4.	On testing, commissioning and satisfactory trial runs	5%
		100%

Signature of Contractor :  
Name  
Company Seal  
Date:

**Add. City Engineer [CZ]  
Water Projects  
Rajkot Municipal Corporation**