

# **Guwahati Smart City Limited**

**Development of Borsola Beel (Lake),  
Guwahati, Assam**

**Request for Proposal  
For  
Design, Construction, Testing, Trial Run and  
Commissioning of Sewage Treatment Plant of  
Capacity 15 MLD Based on Open Technology  
including Operation and Maintenance of STP for  
5 Years**

## **Volume IV : Preamble to Price Bid**

**DOCUMENT NO.: 10477A-EV-2032-2101**

**Employer**



**Guwahati Smart City Limited, Guwahati-781005**

**Request for Proposal**  
**For**  
**Design, Construction, Testing, Trial Run and Commissioning of Sewage Treatment Plant of Capacity 15 MLD Based on Open Technology Including Operation and Maintenance of STP for 5 Years**

**CONTENTS**

**Volume I : Instructions to Bidders.**

**Volume II: Technical Specifications and Schedules**

**Volume II A**

- Part1. Project Description
- Part2. Extent of work , process requirements
- Part3. Submissions to be made on award
- Part4. Inspection Testing and Commissioning
- Part5. Operation and Maintenance requirements
- Part6. Specification for Leachate Protection Work

**Volume II B:**

- Part 1 Technical Specifications for Civil Works
- Part2. Technical Specifications for Geotechnical Works.

**Volume II C:**

- Part 1-Mechanical Specifications
- Part 2-Electrical Specifications
- Part 3-Instrumentation & Control specifications

**Volume II D :**

- Part1 Functional Guarantees of the Plant.
- Part 2 Datasheets for Process and Civil Works
- Part 3 Datasheet for Mechanical Works
- Part 4 Datasheet for Electrical Works
- Part 5 Datasheet for Instrumentation and Control Works

**Volume III : General Conditions of Contract**

- Volume III A: Special Conditions of Contract.
- Volume III B: Appendix to Special Conditions of Contract

**Volume IV : Preamble to Bill of Quantities**

**Volume V . Bid Drawings**

**PREAMBLE TO PRICE SCHEDULES**

1. This bid is for “Design, Construction, Testing, Trial Run and Commissioning of Sewage Treatment Plant, of 15 MLD Capacity Based on Open Technology at Borsola Beel including Operation and Maintenance for 5 Years in Guwahati, Assam”.
2. The bidder shall quote his lump sum price which will be firm and fixed under this Contract during entire tenure of this contract, defined in more details in various sections of this bid document.
3. It will be entirely at the discretion of the Employer to accept or reject the bidder’s proposal, without giving any reason whatsoever.
4. For the purpose of information, bidders shall furnish the details as per Part E ‘Manpower during operation and maintenance of STP’ and Part F ‘List of Recommended spares, tools & tackles’, The rates shall be quoted in INR in the given Proforma.
5. The rates and prices shall be submitted in the electronic formats only. Rates and prices received in any other formats will be rejected and the Bids will be disqualified.
6. No column in the Price Bid shall be left blank. In case the price is not quoted for any item, the bidder shall be deemed to have covered the cost of such items (according to the requirements of the bid document) elsewhere in the prices quoted for other items and no extra payment on this account will be made. For evaluation purpose the rate of such item will be considered zero (0) to sum up the price of that part.
7. Items not specifically listed in Price Bid, 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 total price quoted in ‘Summary of Price’. No extra payment shall be given for any item which is required for successful completion and commissioning of the project.
8. Bidder shall give year wise break up of cost for Operation and Maintenance
9. The bidder shall mention the extent of land requirement in technical bid duly justified in the Layout Plan as per Part-G.

10. The quoted price by the bidder shall be evaluated as per 'Evaluation of Price Bid' under Volume-IV.
11. Payment Schedule given in Volume –IV, shall form the basis to work out schedule of Interim payments during construction period
12. The bidder shall be deemed to have allowed in his bid proposal for all miscellaneous provisions, maintenance cost of equipments and establishments with final removal of all temporary works of whatsoever nature required for construction including temporary bunds, diverting water, pumping, de-watering etc for the proper execution of works. The rates shall also be deemed to have included any works and setting out that may be required to be carried out for laying of pipeline and construction of structures of all the works involved. The Bidder shall bear the Travelling the travelling and TA/DA cost of GSCL/PMC personnel to factory site for inspection of material.
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. The bidder shall obtain available information / document/ data on survey work, soil investigation work and any other data required for his proposal at his own cost.
15. The prices quoted shall also include the cost of materials utilized for testing.
16. The bidder should acquaint himself with all the site conditions including but not limited to the access to Work site, HFL, High/low Tide Level as etc. The successful bidder shall have to make suitable access to work sites at his own cost. These accesses may be permitted for the use of the other contractors working for as per instruction of Engineer-in-charge.
17. The item descriptions in price schedule are for subject matter guidance only. The prices shall include all the equipments / materials / accessories , transportation costs and services required as per the specifications.
18. The Rate quoted shall be inclusive of Goods and Service Tax (GST) and applicable duties/taxes, if any

19. Items description mentioned in the BOQ is suggestive. Bidder need to assess any work that may be required over and above what is described in the BOQ required to be executed for satisfactory completion of the work meeting the minimum requirement as per technical specification. Bidder will not be separately paid and the cost shall be deemed to be covered in rates to be quoted by the bidder for the respective BOQ item

<b>Schedule A of Price Bid –Design &amp; Drawing</b>		
<b>Sr.No</b>	<b>Description</b>	<b>Quoted Price (INR)</b>
1	Submission and approval of Surveys, Soil Investigations ,Designs, Working Drawings including all layout, sections, typical details, Shop Drawings, as Built drawings etc complete for all components of works	To be quoted online as per schedule A
	Total Price of Part A	

<b>Schedule B of Price Bid - Design Build works</b>		
<b>Sr.No</b>	<b>Description</b>	<b>Quoted Price (INR)</b>
1	Consists of all works like Enabling works, Inlet works, Sewage diversion, Site Grading, Ground improvement, main pumping station works, Sewage Treatment plant, Auxiliary building, internal roads, cable Trench for STP, etc as per Schedule B of Price Bid	To be quoted online as per schedule B
	Total Price of Part B	

## SCHEDULE C - OPERATION & MAINTENANCE SCHEDULE

### SUMMARY

The works of this schedule comprises of the supply of all manpower, electric power for technology, transportation of sludge, spares, repairs and replacement as required and any other requirements for the smooth functioning of the Sewage treatment plant, as well as for all Tendered works with 5 years O & M period from the date of successful commissioning as shown in table below:

<b>Table O &amp; M –SUMMARY</b>		
<b>Schedule</b>	<b>Description</b>	<b>Quoted Price (INR)</b>
C1	Total of Table O & M – 1 <sup>st</sup> Year	To be quoted online as per schedule C for Operation and Maintenance
C2	Total of Table O & M – 2 <sup>nd</sup> Year	
C3	Total of Table O & M – 3 <sup>rd</sup> Year	
C4	Total of Table O & M – 4 <sup>th</sup> Year	
C5	Total of Table O & M – 5 <sup>th</sup> Year	
	Total Price of Part C	

Note: The Prices quoted by Bidder shall be inclusive of all taxes, duties and prevailing GST as per government of India norm

**PART C/1  
OPERATION & MAINTENANCE**

The works of this schedule comprises of the supply of all manpower, electric power, transportation of sludge, spares, repairs and replacement as required and any other requirements for the smooth functioning of the Sewage treatment plant, as well as for all Tendered works with 5 years O & M period during the First year from the date of successful commissioning as shown in table O & M-1 below:

**TABLE O & M-1**

Item no.	Description	Quoted Price (INR)
1	<b>Fixed Charges:</b> It may include manpower charges, admin charges, and any other charges if required.	To be quoted online as per schedule for Operation and Maintenance (Schedule C1)
2	<b>Power Requirements:</b> Minimum power requirement in kWh/MLD as per guaranteed consumption given by the bidder.. All the charges for the use of power shall be borne by the contractor and paid directly to the concerned Electrical authorities by contractor..	
3	<b>Flow Dependent Charges for STP Works:</b> It may include Chlorine, Alum, Poly electrolyte, other chemicals if required and transportation of sludge. Minimum chemical requirement as per as per guaranteed consumption given by the bidder	
4	<b>Replacement Charges for STP Works:</b> All the Replacement Items as enclosed under Schedule F in Volume IV of Price Bid should be procured and handed over to Employer as Shelve spares for replacement at the end of its design life period.	
5	Charges for all Tendered works other than STP works :	
	<b>Total price for O &amp; M for the First Year</b>	

**PART C/2****OPERATION & MAINTENANCE**

The works of this schedule comprises of the supply of all manpower, electric power, transportation of sludge, spares, repairs and replacement as required and any other requirements for the smooth functioning of the Sewage treatment plant, as well as for all Tendered works with 5 years O & M period during the Second year from the date of successful commissioning as shown in table O & M-2 below

**TABLE O & M-2**

<b>Item no.</b>	<b>Description</b>	<b>Quoted Price (INR)</b>
1	<b>Fixed Charges:</b> It may include manpower charges, admin charges, and any other charges if required.	To be quoted online as per schedule for Operation and Maintenance (Schedule C2)
2	<b>Power Requirements:</b> Minimum power requirement in kWh/MLDas per guaranteed consumption given by the bidder. All the charges for the use of power shall be borne by the contractor and paid directly to the concerned Electrical authorities by contractor.	
3	<b>Flow Dependent Charges for STP Works:</b> It may include Chlorine, Alum, Poly electrolyte, other chemicals if required and transportation of sludge. Minimum chemical requirement as per as per guaranteed consumption given by the bidder	
4	<b>Replacement Charges for STP Works:</b> All the Replacement Items as enclosed under Schedule F in Volume IV of Price Bid should be procured and handed over to Employer as Shelve spares for replacement at the end of its design life period	
5	Charges for all Tendered works other than STP works :	
	<b>Total price for O &amp; M for the Second Year</b>	



**PART C/3**  
**OPERATION & MAINTENANCE**

The works of this schedule comprises of the supply of all manpower, electric power, transportation of sludge, spares, repairs and replacement as required and any other requirements for the smooth functioning of the Sewage treatment plant, as well as for all Tendered works with 5 years O & M period during the Third year from the date of successful commissioning as shown in table O & M-3 below

**TABLE O & M-3**

Item no.	Description	Quoted Price (INR)
1	<b>Fixed Charges:</b> It may include manpower charges, admin charges, and any other charges if required.	To be quoted online as per schedule for Operation and Maintenance (Schedule C3)
2	<b>Power Requirements:</b> Minimum power requirement in kWh/MLD as per guaranteed consumption given by the bidder.. All the charges for the use of power shall be borne by the contractor and paid directly to the concerned Electrical authorities by contractor.	
3	<b>Flow Dependent Charges for STP Works:</b> It may include Chlorine, Alum, Poly electrolyte, other chemicals if required and transportation of sludge. Minimum chemical requirement as per as per guaranteed consumption given by the bidder	
4	<b>Replacement Charges for STP Works:</b> All the Replacement Items as enclosed under Schedule F in Volume IV of Price Bid should be procured and handed over to Employer as Shelve spares for replacement at the end of its design life period	
5	Charges for all Tendered works other than STP works :	
	<b>Total price for O &amp; M for the Third Year</b>	

**PART C/4****OPERATION & MAINTENANCE**

The works of this schedule comprises of the supply of all manpower, electric power, transportation of sludge, spares, repairs and replacement as required and any other requirements for the smooth functioning of the Sewage treatment plant, as well as for all Tendered works with 5 years O & M period during the Fourth year from the date of successful commissioning as shown in table O & M-4 below

**TABLE O & M-4**

<b>Item no.</b>	<b>Description</b>	<b>Quoted Price (INR)</b>
1	<b>Fixed Charges:</b> It may include manpower charges, admin charges, and any other charges if required.	To be quoted online as per schedule for Operation and Maintenance (Schedule C4)
2	<b>Power Requirements:</b> Minimum power requirement in kWh/MLD as per guaranteed consumption given by the bidder.. All the charges for the use of power shall be borne by the contractor and paid directly to the concerned Electrical authorities by contractor.	
3	<b>Flow Dependent Charges for STP Works:</b> It may include Chlorine, Alum, Poly electrolyte, other chemicals if required and transportation of sludge. Minimum chemical requirement as per as per guaranteed consumption given by the bidder	
4	<b>Replacement Charges for STP Works:</b> All the Replacement Items as enclosed under Schedule F in Volume IV of Price Bid should be procured and handed over to Employer as Shelve spares for replacement at the end of its design life period	
5	Charges for all Tendered works other than STP works :	
	<b>Total price for O &amp; M for the Fourth Year</b>	

**PART C/5****OPERATION & MAINTENANCE**

The works of this schedule comprises of the supply of all manpower, electric power, transportation of sludge, spares, repairs and replacement as required and any other requirements for the smooth functioning of the Sewage treatment plant, as well as for all Tendered works with 5 years O & M period during the Fifth year from the date of successful commissioning as shown in table O & M-5 below

**TABLE O & M-5**

<b>Item no.</b>	<b>Description</b>	<b>Quoted Price (INR)</b>
1	<b>Fixed Charges:</b> It may include manpower charges, admin charges, and any other charges if required.	To be quoted online as per schedule for Operation and Maintenance (Schedule C5)
2	<b>Power Requirements:</b> Minimum power requirement in kWh/MLD as per guaranteed consumption given by the bidder.. All the charges for the use of power shall be borne by the contractor and paid directly to the concerned Electrical authorities by contractor..	
3	<b>Flow Dependent Charges for STP Works:</b> It may include Chlorine, Alum, Poly electrolyte, other chemicals if required and transportation of sludge. Minimum chemical requirement as per as per guaranteed consumption given by the bidder	
4	<b>Replacement Charges for STP Works:</b> All the Replacement Items as enclosed under Schedule F in Volume IV of Price Bid should be procured and handed over to Employer as Shelve spares for replacement at the end of its design life period	
5	Charges for all Tendered works other than STP works :	
	<b>Total price for O &amp; M for the Fifth Year</b>	

**Schedule D****MANPOWER DURING OPERATION AND MAINTENANCE PROPOSED IN THE CONTRACT**

( To be quoted online as per attach Schedule )

<b>Position</b>	<b>No. of Posts</b>	<b>Rate Per Month in Rs.</b>	<b>Total Cost in INR.</b>
Plant Manager / Supervisor	1	To be quoted online as per schedule for Operation and Maintenance (Schedule D )	
Chemist	1		
Mechanic/Fitter	1		
Electrician	1		
Plant Operators	3		
Helpers	3		
Gradener	1		
Sweeper	4		
Watchmen	3		
Bidder shall quote only rates which he has considered as part of operation and maintenance amount			

**Schedule E****LIST OF RECOMMENDED SPARES, TOOLS AND TACKLES for STP**

( To be quoted online as per attach Schedule )

<b>Sl. No</b>	<b>Item</b>	<b>Quantity</b>	<b>Unit Rate in INR.</b>	<b>Total Price in INR.</b>
	Mechanical			
1	Pumps ( 1 Set)	1	To be quoted online as per schedule for	
2	Mechanical Fine Screens ( 1 Set)	1		
3	Primary Clarifiers ( Drive Mechanism) if Proposed	1		
4	Secondary Clarifier ( Drive Mechanism) if Proposed	1		

5	Fine Bubble Diffusers ( 1 Set)	1	Operation and Maintenance (Schedule E )
6	Mixers/ Agitators	1	
7	Primary sludge pumps (Set)	1	
8	Return Activated Sludge Pumps (Set), If applicable	1	
9	Anaerobic Sludge Digester (Mechanical and Electrical Equipments)	1	
10	Gravity Sludge Thickeners (Mechanical and Electrical Equipments)	1	
12	Filters	1	
13	Feed Pump and Backwash pump for filters	1	
14	Chlorinators ( Set)	1	
15	Dewatering Machines (Set)	1	
Bidder shall quote only rates which he has considered as part of operation and maintenance amount			

### PART G

#### BREAKUP OF LAND REQUIREMENT (Part of Technical Bid )

Sl. No.	Description of Unit	Land Required (In m <sup>2</sup> )
1	STP with Tertiary treatment units (if required )	
2	Deodorization of Primary and Sludge Treatment Units and UF or Cloth Media Disc Filtration for Reuse (future units).	
3	Sludge drying bed (SDB) for 25% of sludge generated (future use)	
4	Additional land for 2nd Phase (if required)	
	<b>Total Area</b>	

**Note:**

**The Bidder shall have to submit the extent of land requirement in Technical Bid duly justified in the Layout Plan.** The excess usage over and above the land requirement proposed by the bidder shall be deducted from his payment towards capital cost at the Prevailing land rate.

.

**PREAMBLE TO MODE OF PAYMENT**

1. The contractor after approval of his detailed designs and drawings shall furnish to the Employer's Representative an initial bill of quantities of all items (to be reviewed and updated periodically). This bill of quantities will be used for assessment of percentage progress of any component at any stage.
2. Measurements jointly taken (for Turnkey works) by the Employer's Representative and the Contractor will be entered in the measurement books and signed jointly by both the parties which shall form the basis for such interim payments.
3. As mentioned in the preamble to price schedule, the provision of measurement will be applicable only for the assessment of value of work done and certified by Engineer-in-Charge
4. Payment for items as mentioned will be released as per provision for interim payment as given in schedule mentioned below.
5. Percentages are indicated in the Payment schedule breakup based on the Employer's best appreciation of the value of the component as related to the total costs of the concerned item as a whole. The percentage breakup as indicated in the Payment schedule breakup, may differ from that corresponding to the Bidder's scheme and bidder's design and he should take this into account while quoting his prices for the items specified
6. During O & M, the Contractor shall be paid at the quoted rates per month. The amount withheld against the O & M from the running bill of the contract shall be released as per direction of engineer in charge.
7. The total inflow mentioned in the tender documents is indicative and only for calculation purpose. Any change in the flow as per actual design shall not lead to extra financial implication to the Employer
8. It is clarified by way of abundant caution that contractor shall not claim any additional remuneration in the head of O & M.

### Payment Schedule

Sr.no	Item	Weightage in % to the Contract Price	Stage for Payment	Percentage weightage	Remarks
1.01	Design & drawings	1%	Submission and approval of Surveys, Soil Investigations , Designs, Working Drawings including all layout, sections, typical details, Shop Drawings, as Built drawings.etc complete for all components of works	100%	Payment shall be released on Pro rata basis only after approval of working Drawings as per implementation schedule
1.02	<b>Enabling Works-</b> Sheet Piling Works,  Excavation plus Transportation of Sludge to existing Boragaon Landfill Site 12 km away plus Leachate Protection works at Boragaon landfill site  <b>STP Site Grading Work</b> Backfilling to attain FGL	7.50%	Sheet Piling Works	15%	Payment to be done on Pro rata basis
			Leachate Protection works	24%	
			Completion of Excavation Work plus Transportation of Sludge to existing Boragaon Landfill Site 12 km away	16%	
			Completion of Backfilling Work	40%	
			On Completion of Miscellaneous Work	5%	
1.03	Ground Improvement work at STP site	6.50%	On Completion of all Necessary work	80%	Payment to be done on Pro rata basis
			On Performance of Confirmatory Load Test	20%	
1.04	<b>Inlet works –</b> Temporary flow diversion arrangement for wet well & for emergency and Receiving	5%	On completion of Temporary bund and Sub-Structural Works	30%	Payment shall be done after completion of each activity
			On completion of Super-Structural Works	10%	



Sr.no	Item	Weightage in % to the Contract Price	Stage for Payment	Percentage weightage	Remarks
	Chamber, Coarse Screen Channel , Raw Sewage Sump (Wet Well) of Raw Sewage and Pumping Station		On completion of all Mechanical works	30%	
			Completion of Electrical, Instrumentation, SCADA works	20%	
			Completion of installation works including testing & commissioning	10%	
1.05	Sewage Treatment plant including all auxiliary buildings	40%	<b>For Sewage Treatment Plant</b>		Payment shall be done after completion of each activity
			Construction of Structure upto Plinth Level	12%	
			Construction of Structure upto Superstructure	15%	
			Completion of Mechanical works	22%	
			All Electrical Works, Testing, Lab Equipment, Instrumentation and Control Works etc Complete	30%	
			<b>For Auxiliary buildings</b>		
			Construction of Structure upto Plinth Level	4%	
			Construction of Structure upto Roof Level / Plaster etc complete	6%	
			Office furniture, Plumbing & Sanitary	1%	
	Completion of installation works including testing & commissioning & ready for Possession	10%			
1.06	Structural Works	11%	Retaining Wall & Walkway- Piling works	55%	Payment shall be done after completion of

Sr.no	Item	Weightage in % to the Contract Price	Stage for Payment	Percentage weightage	Remarks
			Retaining Wall & Walkway-Super-Structure works	35%	activity
			Stone Masonary Compound Wall and Barbed Wire fencing	10%	
1.07	Internal Road Approx 515 m within STP area	1%	On Completion of Civil Works	100%	
1.08	Conversion of OH Line to UG Cable for STP premises	1%	11Kv and 33Kv OH Line to UG Cable Conversion.	100%	Payment shall be done after completion of activity
1.09	Cable trench Duct for STP	1%	On Completion of Civil Works	70%	Payment shall be done after completion of each activity
			On satisfactory testing and commissioning of all works	30%	
1.10	Operation and Maintenance for Five years	26%	For First Year	17%	Monthly Payment against Amount quoted for respective year
			For Second Year	18%	
			For Third Year	20%	
			For Fourth Year	20%	
			For Fifth Year	25%	

## 5.0 METHODOLOGY FOR FINANCIAL BID EVALUATION

Employer will first open the technical bid of all the bidders as per schedule given in the instruction to the Bidders in the presence of the bidders or their authorized representatives who choose to attend on the prescribed place, date and time in the bid for bid opening. After opening of the technical bid, Employer will first evaluate bids for qualification requirement stipulated in the bid document.

Prior to the detailed technical evaluation, the Employer will carry out a preliminary examination to determine whether they are complete, whether the required EMD have been furnished, whether the documents have been properly signed, and whether the Tenders are generally in order and whether Qualification criteria to the requirement of the bidding document are met.

The detailed technical bid evaluation of those bids, who are meeting the qualification requirement, will be carried out. The Price bid of the bidders who are not qualified for the bid, will not be opened and returned to the bidder on award of the contract.

Price-Bid will not be opened by Employer, until evaluation of Technical-bids submitted by the bidders is completed and any conclusion is made. In the evaluation of Technical-bid, all the drawings, details etc., submitted by the bidders will be scrutinized before opening of price bid.

In the process of evaluation of Technical-bid, if there are queries regarding the details, data, drawings etc., submitted by the bidders with their Technical-bid then the same will be raised to the bidders and the bidders will have to give the answers / submit more details etc. accordingly..

After complete evaluation of Technical-bids submitted by all the bidders and after any conclusion is made by Employer to its' own discretion, the price bid of technically responsive bidders will be opened. During the financial bid evaluation the bids shall be evaluated as per below formula to decide the lowest evaluated bid.

**5.1. EVALUATION OF PRICE BID:**

<b>Procedure For Price Bid Evaluation</b>			
Sr. no	Item Description	Schedule Reference	Updated Factors
a)	Total price for Survey, Soil Investigation, Working Drawings , Design	Schedule A	
b)	Total Price for Design Build works	Schedule B	
c)	Price quoted for Operation and Maintenance		
	Annual quoted price for 1 <sup>st</sup> year	C1	
	Annual quoted price for 2 <sup>nd</sup> year	C2	
	Annual quoted price for 3 <sup>rd</sup> year	C3	
	Annual quoted price for 4 <sup>th</sup> year	C4	
	Annual quoted price for 5 <sup>th</sup> year	C5	
	<b>Total O&amp;M Cost (C=C<sub>1</sub>+C<sub>2</sub>+C<sub>3</sub>+C<sub>4</sub>+C<sub>5</sub>)</b>	<b>C</b>	
	<b>Total Cost (D=A+B+C)</b>	<b>D</b>	
d)	The total price for Construction and Operation & Maintenance (O&M) for 5 years shall be evaluated on NPV method for each bidder. The following factors shall be considered:		
i)	Discounting factor applicable ' r ' = 10%	<b>r</b>	10%
ii)	Evaluation will be made by NPV method considering 2 years period for construction and 5 years of operation & maintenance.		
iii)	Cash out flow for construction cost = <b>A+B</b>		
iv)	n = no. of years for determining discounted cash flow for construction and operation period for NPV calculation		
v)	Discounted cash flow factors for years 1,2,3,....n are taken as d1, d2, d3.....d <sub>n</sub> where $d_n = \frac{1}{(1+(r/100))^n}$ Eg. $d_1 = \frac{1}{(1+(r/100))^{1.0}}$ whereas, n=1.0 for 1 <sup>st</sup> year n=2.0 for 2 <sup>nd</sup> year n=3.0 for 3 <sup>rd</sup> year	d1	0.91
		d2	0.83
		d3	0.75
		d4	0.68
		d5	0.62
		d6	0.56

<b>Procedure For Price Bid Evaluation</b>			
	..... ..... n = n for n <sup>th</sup> year	d7	0.51
		d8	0.47
d)	<b>Method of evaluation:</b>		
	i. 1 <sup>st</sup> year cash out flow for construction cost= 0.25 (25% of construction cost) * (A+B) * d1	1 <sup>st</sup> Year (n <sub>1</sub> )	d1*(A +B )*25%
	ii. 2 <sup>nd</sup> year cash out flow for construction cost= (35% of construction cost)* (A+B) * d2	2 <sup>nd</sup> Year (n <sub>2</sub> )	d2*(A+B) *35%
	iii. 3 <sup>rd</sup> year cash out flow for construction cost= 0.40 (40% of construction cost)* (A+B) * d3	3 <sup>rd</sup> Year (n <sub>3</sub> )	d3 *(A+B )*40%
	iv. 4 <sup>th</sup> year cash out flow ( i.e. 1 <sup>st</sup> year for O&M) = d4 * C <sub>1</sub>	4 <sup>th</sup> Year (n <sub>5</sub> )	d4 * C <sub>1</sub>
	v. 5 <sup>th</sup> year cash out flow ( i.e. 2 <sup>nd</sup> year for O&M) = d5 * C <sub>2</sub>	5 <sup>th</sup> Year (n <sub>5</sub> )	d5 * C <sub>2</sub>
	vi. 6 <sup>th</sup> year cash out flow ( i.e. 3 <sup>rd</sup> year for O&M) = d6 * C <sub>3</sub>	6 <sup>th</sup> Year (n <sub>6</sub> )	d6* C <sub>3</sub>
	vii. 7 <sup>th</sup> year cash out flow ( i.e. 4 <sup>th</sup> year for O&M) = d7 * C <sub>4</sub>	7 <sup>th</sup> Year (n <sub>7</sub> )	d7 * C <sub>4</sub>
	viii. 8 <sup>th</sup> year cash out flow ( i.e. 5 <sup>th</sup> year for O&M) = d8 * C <sub>5</sub>	8 <sup>th</sup> Year (n <sub>8</sub> )	d8 * C <sub>5</sub>
	<b>Summation of Sl. No. i - viii discounted outflow (NPV) = N</b>		
e)	Total evaluated price = The net present value of the construction cost and the O & M cost with discounted rate of 10% per year (N) The bidder with the lowest price based on the above evaluated price will be considered as L <sub>1</sub> Bidder	<b>Total Cost (NPV of Construction &amp; O&amp;M)</b>	<b>N</b>
<b>Total Evaluated Price</b>			

**Lowest bidder is decided based on the total evaluated bid value as obtained irrespective of agency's quoted rate subjected to overall technical qualification of the bid.**

**The Contract shall be awarded as per price quoted by the bidder in the price bid considering Total price consisting of summation of Schedule A, Schedule B & Schedule C**

**Following Requirements shall be considered for Technical Evaluation purpose**

## **5.2. MINIMUM POWER REQUIREMENTS**

<b>Sl. No</b>	<b>Energy Cost</b>	<b>ASP</b>	<b>MBBR</b>	<b>SBR</b>	<b>MBR</b>
1	Min. Technology Power Requirement (kWh/d/MLD) for STP and Pumping station	As per Guaranteed Consumption quoted by the Bidder			

1. The bidder shall have to submit the guaranteed energy consumption details in the Volume II (D). The details submitted on energy consumption will be used while bid evaluation and it will used to verify the same during actual operation.
2. Above minimum requirements are indicative purpose only, however, bidders are requested to provide requirement with detailed calculation of Power & Chemical, as per technology proposed for tender works.
3. Kindly indicate the cost of Spare Parts separately
4. Information relating to the examination, clarification, evaluation and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to successful bidder has been announced. Any effort by a bidder to influence the Employer's processing of tenders or award decisions may result in the rejection of his bid.
5. The Employer reserves right to select any offer or to reject any or all offers without assigning any reasons thereof. Employer does not bind itself to accept the lowest offer.

Signature of the Bidder (Stamp & Signature)

Date: