

**TENDER FOR COOLING WATER TREATMENT PROGRAMME AT GIPCL VADODARA PLANT 2021-23)". TENDER NO.: GIPCL/MATLS/CW/2021-23**

**GUJARAT INDUSTRIES POWER COMPANY LIMITED**

**TENDER DOCUMENT FOR COOLING WATER TREATMENT PROGRAMME AT GIPCL VADODARA**

**Bid No.: GIPCL/MATLS/CW/2021-23 DT.17.04.2021**



**INSTRUCTIONS TO BIDDERS & CONDITIONS OF CONTRACT**

**TENDER FOR COOLING WATER TREATMENT PROGRAMME AT GIPCL  
VADODARA PLANT 2021-23)". TENDER NO.: GIPCL/MATLS/CW/2021-23**

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**NOTE: All the Bidders should study entire Tender documents carefully & may carry out Plant visit before quoting & submitting their online Bid to understand scope of work and its importance.**

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**NOTICE INVITING TENDER (NIT)  
TENDER NO.: GIPCL/MATLS/CW/2020-21**

<b>Name of work</b>	<b>COOLING WATER TREATMENT PROGRAMME AT GIPCL VADODARA PLANT</b>
Place of work	GUJARAT INDUSTRIES POWER CO. LTD., P.O. Ranoli– 391350 Dist.: Vadodara, Gujarat – India
Quantity	The Successful Bidder will be awarded this Contract involving Total Quantities of various items as mentioned against item descriptions in BOQs.
Contract period	The Period of Contract shall be for two <b>years / 24 months</b> from the Date of Award of Contract and can be extended for a further period of three months with same price, terms and conditions at sole discretion of GIPCL.
<b>EMD</b>	<b>Rs. 1.00 Lacs (Rs. One Lac. only) as per clause No.08.</b>
Availability of online Tender document	Tender will be available on (n) Procure from <b>17.04.2021</b>
Last date of online submission of offer	<b>07.05.2021 up to 17:30</b> hrs. on (n) Procure
Submission of EMD and other supporting documents for technical Bid in physical form	On or before <b>07.05.2021</b> during office hours at office of GIPCL, P.O. Petrochemical – 391346 Dist.: Vadodara, Gujarat – India

**NOTES:**

1. Amendment / corrigendum of the tender document, forms, schedules, etc... may be done any time by the GIPCL during the period of publication of Tender in the website. The Bidders are required to visit the website regularly till the last date & time of Bid submission.
2. GIPCL reserves the right to reject any or all the tenders without assigning any reason thereof.
3. The Bidders are required to quote the rate strictly as per the terms and conditions mentioned in the tender document, adhering to technical specifications as well.
4. The Bidders are required to submit their Bids online through the website [www.nprocure.com](http://www.nprocure.com).
5. The EMD & other supporting documents are to be submitted in physical form only at the following address:-

**Add. General Manager (Materials & Contracts)  
Gujarat Industries Power Company Limited,  
P.O. Ranoli– 391350  
Dist.: Vadodara.**

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**SECTION-A**  
**INSTRUCTIONS TO BIDDERS**

**1. PLANT SYNOPSIS:**

Gujarat Industries Power Company Limited (GIPCL), is a premier power Generating Company, adopting Conventional method using Natural Gas & Lignite as a fuel and Non Conventional method – Solar & Wind. GIPCL Baroda unit is located at village Dhanora has two units: Station I - 145 MW (32×3+49×1) & Station II - 165 MW (111×1+54×1) capacities each. The plant is based on combined cycle technology, using Natural Gas as a fuel. Both Stations are operated either at part load or at base load depending on Gujarat Electricity board demand.

The Company intends to award Annual Rate Contract for the work of Cooling Water Treatment Program strictly with online automation system of monitoring and controlling the water parameters of CW system at GIPCL-Vadodara for a period of two years and is therefore inviting open tenders online (n-procure portal ) from experienced & resourceful contractors.

**2. SCOPE OF WORK:**

- 2.1 Detail Scope of Work for Cooling Water Treatment Programme at GIPCL-Vadodara is mentioned in **Section-D**.
- 2.2 The bid submitted by the bidder not covering the total scope of work and services as detailed out in the tender document shall be liable for rejection.
- 2.3 All the miscellaneous activities pertaining to specific work to be executed for satisfactory performance is in the scope of contractor in his quoted rates.

**3. GENERAL INSTRUCTIONS:**

- 3.1 The Bidders who are interested in participating in the tender must read and comply with the instructions and the Terms & Conditions contained in the tender documents.
- 3.2 The Bids shall be filled in by the Bidders clearly, neatly and accurately. Any alteration, erasures or overwriting shall be liable to make the tender invalid unless the same is neatly carried out and attested over the full signature of Bidder. The decision of the Company to interpret the information and rates filled in by the Bidder shall be final and binding on the Bidder.
- 3.3 The Bidders are requested to make themselves fully conversant with the General Conditions of Contract, Special Conditions of Contract, Technical Specifications, Site conditions, Safety & Health Aspects and Norms to be observed etc. before submitting their bids so that no ambiguity arises in these respects subsequent to submission of the Bids.

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- 3.4 Before quoting the rates, Qty of chemicals the Bidder should go through the specifications, scope of work etc. and get himself fully conversant with them. The Bid should include, cost of supply of chemicals, rent of online remote monitoring instruments / equipment, cost of manpower supply etc. for mobilization and cost to adhere to all Safety Norms as described in the tender. No relaxation or request for revision of quoted / accepted rates shall be entertained subsequent to the opening of Bid on account of mobilization or Safety costs.
- 3.5 Bidder has to quote the rates for GIPCL-Vadodara plant in (n) Procure only.
- 3.6 Bidder has to submit all the information as per required Bid document. Failure to furnish all the information as per required Bid documents or submission of a Bid containing deviations from the contractual terms and conditions, specifications and requirements, shall be rejected.
- 3.7 The Bids shall be submitted within the time frames set out in the Notice Inviting Tender ('NIT') and Bids submitted thereafter shall not be accepted and considered.
- 3.8 The tender documents shall not be transferable.
- 3.9 The Bidders are expected to examine all instructions, forms, terms & specifications in the Bid documents and to get fully acquainted themselves with all the conditions and matters which may affect the subject matter of the work/tender or the cost thereof. If any Bidder finds any discrepancies or omissions in the specifications and documents or any doubt in true meaning or interpretation of any part, he shall seek necessary clarifications in writing.
- 3.10 Conditional offers shall not be considered and liable to be rejected.
- 3.11 The Company reserves the right to extend the deadlines for submission of the Bids by giving amendments.
- 3.12 During evaluation of Bids the Company may, at its discretion ask the Bidder (s) for clarification of their Bid. The request for clarification and the response shall be in writing and no change in prices or substance of the Bid shall be sought, offered or permitted.
- 3.13 The Company reserves the right to amend/ modify the Bidding documents at any time prior to the deadline for submission of Bids, either at its own discretion or in response to the clarification requested by a prospective Bidder. In such case, the Company may in its discretion extend the deadline for submission of Bids in order to facilitate the prospective Bidders for incorporating the effect of the amendment in their Bids.
- 3.14 The Bidders shall bear all costs and expenses associated with the preparation and submission of their respective Bids, to attend meetings or conferences, if any, including any pre award discussion with the successful Bidder, technical and other presentations etc. and the Company shall not be liable for any expense thereof.
- 3.15 If the successful Bidder is a joint venture, formed of two or more companies, the Bidder along with the partners shall accept joint and several responsibilities and liabilities for all obligations under the Contract.
- 3.16 Timely and satisfactory completion of the work and strict adherence to the allotted time frames for jobs shall be the essence of the contract.
- 3.17 The Company reserves the right to qualify/disqualify any applicant without assigning any reason.
- 3.18 The Bidder shall be disqualified if any untrue statement or misrepresentation is made in the Bid forms, attachments and other supporting documents submitted by the Bidder.

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**4. PLANT VISIT:**

The Bidder is advised to visit the GIPCL-Vadodara Plant after downloading the tender copy from (n) Procure to study the actual working conditions, before submitting their offer. The Bidders shall examine the site of works and its surroundings and see for himself that may be necessary for preparing the Bid and entering into a contract. All costs and liabilities arising out of the site visit shall be at Bidder's account.

The submission of tender by a contractor implies that he has read these instructions, conditions of the contract etc. and has himself aware of the scope, nature of works & specifications of the works to be done. GIPCL will not, therefore after acceptance of contractor's rate, pay any extra charges for any other reason in case the contractor is found later on to have misjudged the site conditions.

Any error in description or quantity or omission in the contract document shall not vitiate the contract or release the contractor from executing the work comprised in the contract according to scope of works, magnitude of the works, requirement of materials, equipment, tools & tackles, labour, etc. Contractor has to complete the work in accordance with the contract documents irrespective of any defects, omissions or errors that may be found in the contract documents.

The Bidder is deemed to have examined and understood the tender document, obtained his own information in all matters whatsoever that may affect the works to be carried out especially mentioned or works which may have to be carried out to fulfill his contractual obligation within the scheduled rates and to have satisfied himself to the sufficiency for his offer.

BIDDER shall inspect the site, examine and obtain all information required and satisfy himself regarding matters such as access to site, communication, transport, working condition including constraint of work place, confined area, quantum of dusting, running equipment, importance of work, round the clock working conditions, safety requirements, flow of water during monsoon/dry season in the River, the type and number of equipment and facilities required for the satisfactory completion of work, the quantity of various items of the work, the availability of local labour, availability and rates of material, local working conditions, uncertainties of weather, obstructions and hindrances that may arise, etc which may affect the work or cost thereof, before submission of his Bid. Ignorance of site conditions shall not be accepted by the GIPCL as basis for any claim for compensation. The submission of a Bid by the BIDDER will be construed as evidence that such an examination was made. Any later claims / disputes in regard to rates quoted shall not be entertained or considered by the GIPCL.

The rates quoted by BIDDER shall be based on his own knowledge and judgment of the conditions and hazards involved and shall not be based on any representations of the officer.

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**5. ELIGIBILITY CRITERIA:**

The following criteria shall be adopted for qualifying the Bidders for further proceeding.

- 5.1** Bidder should have successful experience of cooling water treatments with online automation system of monitoring and controlling the water parameters of CW system. I.e. supply of chemicals, operation, monitoring and trouble shooting of cooling water treatment.
- 5.2** Bidder should have R&D set up and / or technical collaboration with a reputed Institute laboratory / internationally renowned company/organization providing cooling water treatment package for trouble shooting of the problems associated with cooling water treatment. Requisite documents supporting the above shall be enclosed.
- 5.3** The Party should have minimum turnover of **Rs. 1.00 Core** per annum from tender related works for last any three financial years. Balance Sheet of the company along with profit and loss account to be submitted duly audited by chartered accountant with membership number. The Balance sheet must be in the name of the Company who is purchasing the tender document any type of MOU for this purpose shall not be entertained. Bidder should submit registration certificate of the company under Companies act 1956 or register partnership deed for partnership firm.
- 5.4** The Party shall provide list of customers with a list of past and present orders executed/being executed for similar systems with copies of performance certificate from user including system details therein.
- 5.5 The Party shall assure:**
1. Enhance the efficiency of CW system
  2. Improve Vacuum at Condenser
  3. Operate Cooling Tower at COC of  $7.00 \pm 0.50$  to save water
  4. Minimize Algae, Microbial growth
  5. Saving on chemical & energy cost
  6. Minimize Corrosion / Scale inside the Heat exchangers, Condensers etc.
- The execution of this contract is to be performed strictly with online automation system of monitoring and controlling the water parameters of CW system by:
1. Automated monitoring and control CWTP to maintain seamless operation without breaks and prompt communication and response to system upsets
  2. **On-line Bio flushing and fills cleaning to improve or maintain the cooling tower efficiency.**
  3. Providing Real-time Input data
  4. Artificial Intelligence based monitoring
  5. Eliminating human intervention and analytical error

The online Monitoring system should work round the clock for 365 days to:

- Detect system variances related to scale, corrosion and bio-activity
- Determine corrective actions needed based on proprietary algorithms

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- Deliver improved results in water treatment and related processes

**5.6** Bidder should possess minimum **three** years of experience of similar work out of last five years (as per following Cl. No.5.8) in similar system and should enclose proof of the same. Bidder shall submit necessary evidence for the same like attested copies of work orders along with work completion certificates from clients. The work completion certificate shall comprise of Order value & Executed value. Bidders should have executed the work directly. The work executed as a sub-contractor or subletting agency shall not be taken in to consideration.

Note: For evaluation of the bid, the executed value mentioned in the work completion certificated will be considered.

**5.7** Bidder should produce evidence of having experience of successfully completed similar works as defined hereunder during last **Three years out of last five years** ending last day of the month previous to the one in which tender is invited, satisfactory progress of ongoing works etc. secured from clients along with certified copies of documentary evidence preferably photo copies of work experience. The experience should be either of the following:

**a. One similar completed work each costing not less than the amount equal to Rs.51.00 lacks.**

**OR**

**b. Two similar completed work each costing not less than the amount equal to Rs.34.00 lacks.**

**OR**

**c. Three similar completed work each costing not less than the amount equal to Rs.25.00 lacks.**

Bidder should specifically mention fulfilling of above criteria in his offer along with details of work orders & work completion certificates issued by clients.

**5.8** Contractor shall have to submit satisfactory work completion certificate from the client of above submitted orders. Experience as a sub-contractor will not be allowed and Price Bid of such Bidders will be rejected.

**5.9** EMD: The EMD shall be accompanied in the form of DD in favor of GIPCL, Baroda.

**5.10** The net worth of the bidder should be positive as evidenced from audited accounts of last financial year.

**5.11** Bidder should have separate Employees Provident Fund code number towards registration of firm with RPF commissioner.

**5.12** Attested copies of relevant documents duly signed & seal on each & every page shall be submitted. The above documents will be analyzed and after satisfaction, the Price Bid will be open. GIPCL may verify the documents, experience certificates issued by concern authority. After opening of technical Bid, if any required attested documents found missing in the Technical Bid submitted by the Bidder, the tender inviting authority may inform to that



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- Bidder only once by E-mail to submit the missing required documents within stipulated time limit. If Bidder/Bidders fail to submit within stipulated time, their Bid will be declared technically disqualified and no further correspondence will be entertained.
- 5.13** The Bidder has to submit INCOME TAX Permanent Account Number (PAN), TIN/VAT no. of the firm. Copies of the same shall be submitted.
- 5.14** Bidder has to submit GST registration number. Copy of the same shall be submitted.
- 5.15** In case Bidder is a joint venture company since last five years, the above requirements/credential of Joint Venture Company / Parent companies shall be considered.
- 5.16** If Bidder or its Partner(s) or Director(s) is /are/was Black Listed / Deregistered / Stopped or banned from dealing in the past by any Govt, of Gujarat Undertakings / Depts. / Authorities and Govt. of Gujarat supported companies / undertakings / organizations, Bid of that party may be liable to be rejected. Bidder agrees and undertakes to accept decision of GIPCL in this regards as final and binding on the Bidder without any demur and that no further correspondence shall be done in this regard at any stage. Bidder shall have to submit "Declaration for Contractual Litigations" as amended in Annexure – G attached.
- 5.17** Bidder shall have to submit the "Declaration-cum-Undertaking for Compliance of Safety Laws and Regulations" as amended in Annexure –F attached.
- If any Major Violation of any safety law(s) / Rule(s) is / are found during the preceding Three (3) years, Bid of that party will be liable to be rejected. Bidder agrees and undertakes to accept decision of GIPCL in this regards as final and binding on the Bidder without any demur and that no further correspondence shall be done in this regard at any stage.
  - If any of the details submitted in the prescribed Annexure / Form to the Bid is/are found to be false, incorrect at any time in future, then the Contract awarded to that Bidder / Contractor shall be liable to be terminated forthwith without any notice / correspondence and Bidder agrees and undertakes to accept decision of GIPCL in this regards as final and binding on the Bidder without any demur and that no further correspondence shall be done in this regard at any stage. Further, Performance / Security Deposit will also be liable to be forfeited. Any dues to GIPCL from the Bidder / Contractor shall be recovered from the pending bills or any other dues payable to the Bidder / Contractor, if any or otherwise through any other recourse available under the Laws.

The Bidder shall submit all the evidences, documents, attested copies of work orders & work completion certificates etc... as a proof with EMD and also provide the requisite details online for meeting the prequalification requirements. GIPCL will verify the experience, performance, capability &

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strength of Bidders, independently for executing the job. GIPCL may visit the site & consult the owner of the industry/property where similar job is executed by the Bidder. GIPCL reserves the right to accept/cancel/reject any/all Bids without assigning any reason thereof. The tenders of qualified Bidder/Bidders shall only be considered for further evaluation.

**6. LANGUAGE OF BID:**

The Bid prepared by the Bidder, and all correspondence and documents relating to the Bid exchanged by the Bidder and the Company, shall be written in the English language. Any printed literature furnished by the Bidder, written in another language shall be accompanied by an English translation for the purpose of interpretation of the Bid.

**7. EARNEST MONEY DEPOSIT (EMD):**

7.1 An EMD of **Rs. 1,00,000/-** shall accompany with Bid. The EMD shall be in the form of a crossed bank Demand Draft in favor of Gujarat Industries Power Co. Ltd. **and payable at Vadodara or through BG format attached in annexure- A2 in section-H or through RTGS.**

7.2 The EMD of the successful bidder will be returned after payment of Security Deposit by successful bidder.

7.3 The earnest money deposit paid in the form of demand draft will be refunded to the unsuccessful BIDDER as soon as the tender is finalized.

7.4 No interest shall be payable on EMD.

7.5 The EMD will be forfeited if the BIDDER (i) withdraws his tender after acceptance or (ii) withdraws his tender before the validity date of the tender.

**8. SCHEDULE OF EMD:**

EMD and other documents dully signed to be submitted in physical form <b>within three working days</b> after due date of closing of the tender	Address for Submission: <b>AGM (Materials &amp; Contracts) Gujarat Industries Power Company Limited P.O. Ranoli– 391350 Dist.: Vadodara, Gujarat - India</b>
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**9. SUBMISSION OF BIDS:**

**A: MODE OF SUBMISSION**

The Bids shall be submitted in two parts along with EMD within dates specified in NIT as under:-

- (a) Pre-qualification and Techno-commercial Bid without price.
- (b) Price Bid.

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**Note: EMD shall be submitted in physical form within three working days after due date of closing of the tender.**

**a) Pre-qualification and Techno-commercial Bid without price:**

**The following Documents shall also be submitted along with EMD in Physical Form to GIPCL-Vadodara.**

The tender document duly signed in all pages without price bid along with Techno-commercial deviations, if any, shall accompany the bid. The following Information shall be provided in the techno commercial bid:

1. Qualification and experience of site in charge / Supervisors / Chemist.
2. Schedule of deviation Technical as well as commercial, if any.

The following supporting documents shall also be submitted along with EMD in physical form:

1. The tender documents dully signed in all pages without price bid along with techno-commercial deviations, if any. If you don't have deviations then write "NIL" in the deviation sheet and then submit with sign & stamp.
2. Proof of experience meeting the minimum eligibility criteria.
3. Performance certificate issued by clients.
4. Previous work order copies.
5. Details of present work order (if any)
6. Turn over for the last three years, audited annual accounts/financial statements i.e. profit and loss account and balance sheet duly certified by a practicing CA will be required.
7. P.F Number and Allotment Letter.
8. PAN Number.
9. GST registration number/certificate copy.
10. Annexure-3 of Section E to be submitted with sign & Stamp.

**b) Price Bid:**

- 1) Price Bid shall be submitted only in soft form through **(n) Procure Only**.
- 2) You shall submit the rates for Supply of Chemicals, Rent for online monitoring instruments, man-power deputation charges, consumables, tools & tackles, rent of equipments, pumps and their maintenance charges, all man power, food & accommodation of workers, packing & forwarding, transportation of material up to site (FOR Site), storage and handling at site and also safety and statutory compliance, mobilization and de-mobilization etc.
- 3) We have provided format of Schedule of Rates for the purpose in **Section-D**. Evaluation of bids shall be done considering combine / total landed cost of GIPCL, Vadodara. Price bid submitted in hard copy shall not be considered for opening.

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- 4) The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents.

**10. METHOD OF TENDERING / SIGNATURE ON BIDS:**

- (i) The Bid must contain the postal address like name, residence and place of business of the person or persons submitting the Bid and must be signed and sealed by the Bidder with his usual signature. The name of all persons signing the documents shall also be typed or printed below the signature on each page.
- (ii) Bid by a joint venture / partnership firm must be furnished with full names of all partners and be signed with the partnership name, followed by the signature and designation of one of the authorized partners or other authorized representative(s). A certified copy of the power of attorney authorizing such partner or representative shall also be submitted.
- (iii) Bids by a Corporation / Company must be signed with the legal name of the Corporation / Company i.e by the President / Managing Director / Secretary or other person or persons authorized to Bid on behalf of such Corporation / Company. A certified copy of the board resolution / power of attorney authorizing such partner or representative shall also be submitted.
- (iv) The Bidder's name stated on the proposal shall be the exact legal name of the firm.
- (v) Erasures or other changes in the Bid Documents shall be initialed by the person signing the Bid.
- (vi) Bids not conforming to the above requirements of signing shall be disqualified.

**11. MODIFICATION AND WITHDRAWAL OF BIDS:**

- a. The Bidder may modify or withdraw the bid prior to the deadline prescribed for submission of bids.
- b. No Bid shall be modified subsequent to the deadline for submission of Bids.
- c. No Bid shall be withdrawn in the interval between the deadline for submission of Bids and the expiration of the period of bid validity.

**12. Evaluation of Technical Bids:**

**12.1** Technical Bids will be brought to an acceptable level of conformance with the technical specifications through direct correspondence and / or negotiations with the Bidders.

**12.2** All responses to requests for clarifications shall be in writing and shall be presented to the Owner on or before the dead line requested by the Owner. If the Technical clarifications sought by the Owner do not reach the Owner on or before the dead line, the Bid will be rejected.

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**13. EVALUATIONS AND COMPARISON OF BIDS:**

- 13.1 The Bids received and accepted shall be evaluated by the Owner to ascertain the lowest evaluated Bid in the interest of the owner, for the complete 'Order' covered under these specifications.
- 13.2 Evaluation of bids shall be done considering Total Landed Cost of Supply.

**14. POLICY FOR BIDS UNDER CONSIDERATION:**

- a. Bid shall be deemed to be under consideration immediately after opening of the bid and till official intimation of award/rejection made by the Company to the Bidders.
- b. While the Bids are under consideration, Bidders and / or their representative or other interested parties are advised to refrain from contacting by any means, the Company. The Engineer, if necessary, will obtain clarifications on the Bids by requesting for such information from any or all the Bidders, in writing as may be necessary. The Bidder will not be permitted to change the price or substance of the Bid after the Bid has been opened.

**15. EFFECT AND VALIDITY OF THE BID:**

- a. The Bid should be kept valid for acceptance for a period of 180 calendar days from the last date of submission of Bids.
- b. The submission of any Bid along with the required documents and specifications shall constitute an agreement that the Bidder shall have no cause of action or claim, against the Company for rejection of his Bid. The Company shall always be at liberty to reject or accept any Bid or Bids at his sole discretion and any action will not be called into question and the Bidder shall have no claim in that regard against the GIPCL.

**16. OPENING OF BIDS:**

16.1 The GIPCL will open the pre-qualification/Technical Bid/price Bid, in presence of authorized officers of GIPCL.

**16.2 Preliminary Examination:**

16.2.1 The Company will examine the Bids for any computational errors, for sureties furnished by bidder, for authentication of documents submitted and completeness of the Bids.

16.2.2 Arithmetical errors will be rectified on the following basis:

- (a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price will be corrected & will be binding to the bidders
- (b) If there is a discrepancy between the Total Bid Amount and the sum of total prices, the sum of total prices shall prevail and the Total Bid Amount will be corrected & will be binding to the bidders.

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**17. EVALUATION & COMPARISON OF BIDS:**

- 17.1 GIPCL shall evaluate the Bids received and accepted by it to ascertain the lowest evaluated Bid in conformity with the specifications of the tender documents.
- 17.1 Bidder has to quote the rates for GIPCL-Vadodara plant in (n) Procure only.
- 17.1 The Technical Bids will be examined for minor matters regarding qualification of bids. Subsequent to correspondence with the respective bidders, the decision of Tender Committee will be final.
- 17.1 All responses to requests for clarifications shall be in writing and shall be presented to the Company through e-mail or in a sealed envelope on or before the given date requested by the Company. If the Technical clarifications sought by the Company do not reach the Company on or before due date, the Bid will be rejected.
- 17.1 The comparison of all the Bids shall be carried out with reference to the scope of work as per the technical specification. Any deviation/omission shall be evaluated at highest quoted price of the deviation/omission quoted by any of the Bidder. In case a separate price (for omission) is not given by any other Bidder, a reasonable price of the same shall be taken & the same shall be binding to the Bidders.
- 17.1 The commercial deviation, if any, shall be loaded to bring all the Bids at par. The loading shall be carried out at an interest rate of 2% above PLR of SBI.
- 17.1 A Bid to be substantially responsive shall be one which on evaluation confirms to all the terms, conditions and specifications of the Bid documents without any material deviation or reservation.
- 17.1 For the above referred purpose, a 'material deviation' shall be one
  - (a) Which affects in any substantial way the scope, quality or performance of the contract, or
  - (b) Which limits in any substantial way and in a manner inconsistent with the Bid documents, GIPCL's right or the Bidder's obligations, under the contract, or
  - (c) Whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.

**18. RIGHT OF REJECTION OF TENDERS:**

- 18.1 GIPCL reserves the right to accept or reject any Bid or to cancel the Bidding process and reject all Bids at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders regarding the same.
- 18.2 Any Tender without EMD will be treated as non responsive and shall be rejected at the outset & no further correspondence shall be entertained regarding this.
- 18.3 GIPCL reserves the right to debar any Bidder from participation in future Bids if such Bidder has quoted an abnormally low rate in the Bid document/price Bid.

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**19. AWARD OF CONTRACT:**

19.1 GIPCL will award the contract to that bidder whose quotation has been determined to be substantially responsive and evaluated as the lowest quotation in conformity with the requirements of the specifications and documents contained herein, provided further that the bidder is determined and evaluated to be qualified to perform the contract satisfactorily.

19.2 The successful bidder shall be intimated of his selection through the Letter of Intent or Letter of Award/ Work Order which shall be sent to him through e-mail, courier, fax or registered mail.

**20. CONTRACT PERIOD:**

20.1 The contract will be for a period of **Two Years** from the date of actual commencement of operation of the contract as stated in the Work Order ('Contract Period').

20.1 GIPCL reserves the right to extend the Contract Period up to 3 months on the same rates and terms and conditions without any price escalation and entering into any new contract.

**22. ASSIGNMENT AND SUB-LETTING:**

The Contractor shall not directly or indirectly assign or sub-let total/any part of the contract to any other party or agency.

**23. Clarification of Bidding Documents:**

If any Bidder requires any further information or clarification in the Bidding Documents, may notify the Company before one week of last date of submission of online Bid, in writing or by E-mail at the GIPCL's mailing address [bcshah@gipcl.com](mailto:bcshah@gipcl.com) / [purchase@gipcl.com](mailto:purchase@gipcl.com) / [nvkarode@gipcl.com](mailto:nvkarode@gipcl.com) as indicated in the 'Invitation to Bids'. The GIPCL's response (including an explanation of the query) will be sent in writing or by E-mail to all prospective Bidders who have received the Bidding Documents.

**24. TIME SCHEDULE:**

The basic considerations and the essence of the 'Contract' shall be the strict adherence to the time schedule for performing the specified 'Works'.

**25. UNDERSTANDING AND CLARIFICATION ON DOCUMENTS AND SPECIFICATION:**

The Bidder is required to carefully examine the specifications and documents, all the conditions and matters work wise & cost wise. If any Bidder finds any discrepancies or omissions in the specifications and documents or is in doubt for any meaning of any part, he shall request in writing for an interpretation/clarification to the GIPCL or during Pre-Bid meeting.

All such interpretations and clarifications shall form a part of the Bid documents.

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**26. PAYMENTS:**

All the payments against the work order shall be in Indian currency and payable through cheque / RTGS only.

**27. POINTS TO BE CONSIDERED DURING QUOTING ONLINE PRICE BID:**

- a. The method of measurement of completed work for payment shall be in accordance with the method of measurement specified in the tender.
- b. No separate amount shall be payable for use of auxiliary equipment incidental to or in day to day operation in the course of fulfillment of contractual obligation of the supplier.

**Note: Interested bidders are requested to submit the online tender at least two days in advance from the due date set for on line submission of bid in order to avoid non participation of (n)-Procure.**

**28. QUANTITIES:**

Payment will be made, based on accepted Supply of chemicals & actual work done as certified by Engineer-in-charge of GIPCL.

Quantities of individual items may be revised during the course of contract period based on site requirement. Contractor shall not be entitled for any compensation on ground of such alteration in scope of work. GIPCL reserves the right to operate or increase/decrease quantities in each item or omit any item included in Schedule of Quantity at his discretion. Contractor shall have no claim, whatsoever, on grounds of loss of anticipated profit etc. on account of the same.



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**SECTION-B  
INSTRUCTIONS TO BIDDERS FOR ONLINE TENDERING**

<b>Sr. No</b>	<b>Description</b>
01.	Tender documents are available only in electronic format which Bidders can download from the website <a href="https://www.nprocure.com">https://www.nprocure.com</a> and <a href="https://gipcl.nprocure.com">https://gipcl.nprocure.com</a>
02.	Price bid should be submitted online through the website <a href="https://gipcl.nprocure.com">https://gipcl.nprocure.com</a> only. No physical submission of price bid will be entertained as it should be furnished on-line only.
03.	Bidders who wish to participate in online tenders will have to procure / should have legally valid Digital Certificate (Class III) as per Information Technology Act-2000, using which they can sign their electronic bids. Bidders can procure the same from any of the license certifying Authority of India or can contact (n)code solutions- a division of GNFC Limited, who are licensed Certifying Authority by Government of India
04.	All bids should be digitally signed. The bidders are required to contact at the below mentioned address for detailed training on on-line tendering and also for requirement.  (n) Code Solutions - A division of GNFC Ltd. 403, GNFC Infotower, S.G Road, Bodakdev, Ahmedabad – 380054 (Gujarat, India) Toll Free: 1-800-419-4632/1-800-233-1010, Tel: 079-26857315/316/317 E-mail: <a href="mailto:nprocure@gnvfc.net">nprocure@gnvfc.net</a> , website: <a href="http://www.nprocure.com">www.nprocure.com</a>

**REVERSE AUCTION:**

- 1) GIPCL reserves the right to conduct E-Reverse auction through (n) Procure platform.
- 2) E-Reverse auction shall be conducted amongst (a) the lowest 50% eligible bidders (rounded to the next higher whole number) from the total bids received OR (b) Minimum three (03) lowest bidders, whichever is higher, shall be invited for participation in e-Reverse Auction through n-procure platform.
- 3) Opening Price, Detrimental value and duration for the e-Reverse Auction shall be informed to the qualified bidders before start of e-Reverse Auction.
- 4) After e-Reverse Auction process, L1 bidder shall be decided on Lowest Total Contract Price.
- 5) To participate in e-Reverse Auction, Bidders have to create e-Auction USER ID on <https://e-auction.nprocure.com> that the bidder shall be allowed to participate the e-Reverse Auction.
- 6) In case of any further information regarding online bidding or if a Bidder needs any assistance in accessing/ submission of online bid/ clarification or if training is required for participating in online e-reverse bidding, then the Bidder can contact the following office for assistance or training:

(n) Procure Cell, (n) code solutions-A division of GNFC Ltd.,

403, GNFC Info tower, S.G. Road,  
Bodakdev Ahmedabad – 380054 (Gujarat)  
Toll Free: 1-800-419-4632 / 1-800-233-1010,  
Phone No. 079-26857315 / 316 / 317,  
Fax: 079-26857321 / 40007533, Email: [nprocure@gnvfc.net](mailto:nprocure@gnvfc.net)

Bidder may visit <https://www.nprocure.com/html/faq.asp> for information regarding e tendering registration process

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**SECTION-C  
GENERAL CONDITIONS OF CONTRACT**

**1. CONTRACT SECURITY DEPOSIT/ PERFORMANCE BANK GUARANTEE:**

As a Contract Security, the successful Bidder, to whom the work is awarded, shall be required to furnish a Performance Bank Guarantee (PBG)/Contract security deposit in favor of Gujarat Industries Power Company Limited for guarantee amount at **10%** of the "Annual Contract Price excluding tax and duties" from any Schedule Public Sector bank or Schedule Private Sector Bank in the format attached in **SECTION-F**, and it shall guarantee the faithful performance of the 'Contract' in accordance with the terms and conditions specified in these documents and specifications. Contract security deposit shall be submitted strictly within twenty one days from the date of Lol or work order, whichever is earlier. The guarantee shall be valid up to retention period of three months from the contract completion date. The Guarantee amount shall be payable to the Company in Bidder's home currency without any condition whatsoever.

The Performance Bank Guarantee (initial security deposit) money will be returned to the Vendor/Contractor without any interest at the end of the 'Retention Period' after completion of contract and on fulfilling contractual obligations throughout the retention period. However, any delay in submission of initial SD will result in equivalent late release of entire SD after guarantee period.

**2. RECOVERY CLAUSE:**

- (i) In case of any damage of equipment / machinery due to negligence of contractor or any other reasons attributed to contractor the decision of Officer-in-charge regarding the amount of recovery shall be final and binding subject to a maximum of 10% of contract value. Recovery will be affected from the monthly bills and security deposit.
- (ii) If the contractor fails to execute the work as per directions of Engineer (I/c) within the time frame given in work order and as per day to day instructions by officer-in-charge, GIPCL shall get the work done by third party at the risk & cost of the contractor with 15% additional overhead charges of GIPCL.

**3. ASSIGNMENT AND SUBLETTING OF THE CONTRACT:**

The contractor shall not assign or sub-let any part of the contract to any other party or agency without written permission from GIPCL.

**4. DEDUCTIONS FROM CONTRACT PRICE:**

All costs, charges or expenses that GIPCL may have paid, for which, under the contract the contractor is liable, shall be recovered by the GIPCL. The

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contractor shall pay all such claims within 15 days of claim failing which the same shall be deducted from the bills of contractor.

**5. TERMINATION OF CONTRACT BY GIPCL:**

Contractor shall be responsible to complete the jobs within agreed time schedule and in case contractor fail to complete the job, GIPCL shall recover from his bill, Security Deposit and / or whatsoever for expenses incurred to complete the job with additional 15% overhead charges.

In case if contractor's services are not found satisfactory with respect to mobilization, time bound completion of work, workmanship & safety (OHSAS policy of GIPCL) then GIPCL has right to terminate the contract at any time by giving him 15 days advance notice without assigning any reason and will make the alternate arrangement at the risk & cost of contractor.

GIPCL may terminate the contract after due recoveries of pending jobs/damages after giving 15 days advance notice to the contractor if any of the following events occur –

- i. If satisfactory performance in all respect not achieved.
- ii. Contractor is adjudged as insolvent.
- iii. Contractor has abandoned the contract.
- iv. Contractor fails to proceed with the work with due diligence as per requirements of the contract.
- v. Contractor has neglected or failed persistently to observe or perform any of the acts, matters or things, which as per the contract are to be observed and performed by the contractor.
- vi. Contractor repetitively violating the safety norms for more than three incidents.
- vii. Any major contradiction of applicable labour laws.
- viii. Any major deviations from contractual terms and conditions including quality of job.

**6. FAILURE & TERMINATION:**

If the CONTRACTOR after receipt of written notice from the GIPCL / ENGINEER requiring compliance, with such further drawings and / or the GIPCL / ENGINEER instructions fails within seven days to comply with the same, the GIPCL /ENGINEER may employ and pay other agencies to execute any such work whatsoever as may be necessary to give effect thereto and all costs incurred in connection therewith shall be recoverable from the CONTRACTOR by the GIPCL on a certificate by the GIPCL/ENGINEER as a debt or may be deducted by him from any money due or to become due to the CONTRACTOR.

If the contractor fails to execute the work or fails to mobilize the resources and equipments as per directions of GIPCL / ENGINEER within the time frame given and/or violating the GIPCL's safety rules & regulations, ENGINEER / GIPCL shall get the work done by third party at the risk & cost of the CONTRACTOR with additional 15% overhead charges of GIPCL and

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all costs incurred in connection therewith shall be recoverable from the CONTRACTOR by the GIPCL / ENGINEER as a debt or may be deducted by him from any money due or to become due to the CONTRACTOR.

In case if contractor's services are not found satisfactory with respect to mobilization, time bound material evacuation, workmanship & safety (OHSAS policy of GIPCL) then GIPCL has rights to terminate the contract at any time by giving you 15 days advance notice without assigning any reason and will make the alternate arrangement at cost and risk of the Contractor.

**7. SETTLEMENT OF DISPUTES:**

- Any disputes or difference of opinion between parties arising out of the contract to the extent possible shall be settled amicably between the parties. If amicable settlement cannot be reached all the disputed issues shall be resolved through arbitration before a Sole Arbitrator appointed by Managing Director, GIPCL according to the provisions of The Arbitration & Conciliation Act-1996, as amended from time to time. The place of arbitration shall be at Vadodara/ Surat or any other place within state of Gujarat.
- Work under the contract shall be continued by the contractor during arbitration proceedings unless GIPCL shall order suspension thereof or any part thereof in writing or unless the matter in such work cannot possibly be continued unless the decision of the Arbitration proceedings is obtained.

**8. INTERPRETATION OF CLAUSE:**

In case of disputes as regards interpretation of any of the clauses or specification, the decision of GIPCL will be final and binding on the contractor.

**9. EMPLOYEE'S COMPENSATION INSURANCE:**

Contractor shall take all risk Insurance Policy to cover all his workmen/employees, staff applicable under the Employee Compensation Act 1923 or any amendment thereof as also insurance cover for third party liability. The contractor shall keep the GIPCL indemnified from all liabilities arising out of his action in pursuance of this contract. The E. C. Policy should be obtained from Vadodara Jurisdiction for Vadodara plant and shall be assigned to GIPCL. EC policy should cover the specified contract period.

Contractor shall also obtain additional off-duty coverage insurance policy for all his workers.

**10. STATUTORY REQUIREMENTS:**

**a. COMPLIANCE OF LABOUR LAWS:**

1. The contractor shall at his own cost comply with the provision of labor laws, rules, orders and notifications whether central or state or local as applicable

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- to him or to this contract from time to time. These Acts/Rules include without limitation of the followings.
2. Contractor shall be solely responsible and shall fully comply with all the provisions of all the labor laws applicable such as the Minimum Wages Act, 1948, Contract Labor (Regulation & Abolition) Act 1970, Factories Act, 1948, Payment of Bonus Act 1965, Employees Provident Fund and Miscellaneous Provision Act 1952, Industrial Dispute Act 1947, Workmen Compensation Act 1923, Payment of Gratuity 1972, Interstate Migrant Workmen Act 1979, Equal Remuneration Act with Rules, Order and Notifications issued/made there under from time to time.
  3. All other Acts, Rules/Bye-Laws, Orders, Notifications etc. present of future applicable to the contractor from time to time for performing the contract job.
    - 3.1 The Contractor shall provide and be responsible for payment of Wages, Salaries, Bonus, Social charges, Insurance, Food, Accommodation, Transport, Medical and Canteen facilities and other statutory privileges and facilities to his personnel as per law/rules/regulations and orders of the Central Government, State Government, Local Authorities or other authorities as are in force from time to time. All employees of the Contractor shall be employee of the Contractor.
    - 3.2 The contractor shall have a valid license obtained from Licensing Authority under the Contract Labor (Regulation & Abolition) Act-1970 at the time of execution of the contract covering all his employees working at Vadodara Plant and furnish the same failing which GIPCL may terminate the contract at its sole discretion.
    - 3.3. The Contractor shall at the time of execution of the contract have a EPF Code Number obtained from the Authorities concerned under the Employees Provident & Miscellaneous Provisions Act, 1972 and remit contributions in respect of the employees employed by him at Vadodara Plant to the P.F office concerned every month failing which GIPCL will recover from the outstanding payment to the contractor from GIPCL.PF code of Gujarat region should be taken.
    - 3.4. The Contractor shall maintain all records/registers required to be maintained by him under various labor laws mentioned above and produce the same before the Statutory Authorities whenever required.
    - 3.5 The Contractor shall also submit periodical reports / returns to the various statutory authorities such as the Contract Labour (Regulation & Abolition) Act-1970, Employees Provident Fund Act etc. Under intimation to HR&Admn.Dept.
    - 3.6 The Contractor shall not pay less than the Minimum Wages notified by the Government from time to time to his employees of corresponding categories.
    - 3.7. The Contractor shall be responsible for payment of overtime wages to his workmen, if any, in case they are required to work beyond the prescribed hours under law as per applicable rates.
    - 3.8 The contractor shall take Workmen Compensation Insurance Policy for all his employees working at Vadodara Plant. The contractor shall indemnify the company against any liability due to any work injury or accident to any of its employees.

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- 3.9 The Contractor shall in the event any of his workmen / employee sustains any injury or disablement due to an accident arising out of and in the course of his employment, provide necessary medical treatment and pay compensation as applicable, required under the Workmen's Compensation Act, 1923.
  - 3.10 If any of the persons engaged by the Contractor misbehave with any of the officials or the Company or commit any misconduct with regard to the property of the Company or suffer from any serious communicable disease, the Contractor shall replace them immediately.
  - 3.11 The Contractor shall not engage / employ persons below the age of 18 years. Employment of women shall be strictly according to applicable laws.
  - 3.12 GIPCL will have right to deduct and disburse the claims of the individual / parties being a principal employer on any account whatsoever in relation to their employment with the contractor. The Security deposit will be released to the contractor at the end of the contractual tenure subject to an undertaking by the contractor that in the event any of his workmen or the heirs of workmen puts up a claim for recovery of money due to him from the contractor before the appropriate authority under the I.D.Act 1947 or under any other labor laws or for compensation under the Workmen's Compensation Act, 1923 and the appropriate authority has given a direction for making payment the contractor will meet the same or indemnify GIPCL if in the event GIPCL pays it as Principal Employer.
  - 3.13 The contractor shall make payment of wages to his employees on fixed date within the period specified under the applicable Law, in presence of representative of the company. He will submit a true copy of wage sheet, attendance register and P.F. remitted challans on monthly basis to HR&A dept. for verification and record.
  - 3.14 The Contractor shall provide Safety items / kits to his employees such as safety shoes, goggles, ear plugs, hand gloves, safety belts etc., if any, required under the law.
  - 3.15 The contractor shall conduct pre-induction and periodic medical checkup of his workmen as per applicable laws.
4. The contractor shall be solely responsible for any accident caused to his workers and should adhere to all rules / regulations as per labor laws of Government and other statutory laws as applicable.
  5. The contractor should register himself under the Contract Labor Act, Employee Compensation Act and PF Act (Code no. to be mentioned) and submit the copy of registration certificate and should possess the same from the date of commencement of work, failing which the contract is liable to be cancelled. The E.C. Policy copy should be submitted to the GIPCL before commencement of the work and Labor License should be obtained within one week from the date of issue of form-V. Contractor should apply for Form-V immediately after receipt of LOI. A copy of Labour License shall be submitted to GIPCL, HR & A Department.
  6. Contractor shall have to insure his workmen /supervisors etc. under Group Insurance scheme.
  7. The Contractor shall be responsible for compliance of all statutory rules, regulation, act enforced from time framed by the government such as Factory

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Act, Employee Compensation Act, payment of 'Wages Act', Minimum Wages Act', Provident Fund Act, All Labor Laws Act in respect of employees engaged by him for the work and shall have to maintain necessary records. In case any amount becomes due to be payable by him to his employees or to the Government under the above rules, regulation, Acts, GIPCL reserves the right to recover the same from the running bill of the contract.

8. Documentary evidence of deposit of PF paid shall have to be produced by the contractor along with the next bill.
9. Records as per the provisions of various statutory Acts will have to be maintained by the contractor and submitted as and when required.
10. All employees of contractor should maintain due discipline and respect local sentiments. GIPCL reserves the right to direct the contractor to remove any such person who does not comply with it.

The list is indicative in nature and not an exhaustive one. Any amendment/alteration/Notifications or addition to the existing Law or a new statute shall automatically and immediately become applicable.

**b. LEGAL ASPECTS:**

1. Contractor shall maintain all register required under the Labour Laws and make the payment as per the Minimum Wages Act to the workers employed by him.
2. Contractor shall obtain requisite license to carry out this contract under the provisions of Contract Labour Act, 1970 and maintain necessary records and registers under the said Act.
3. Contractor shall submit a copy of each of the registration certificates with respect to Employees Provident Fund and Employee Compensation Act within one week time, from the date of award of this contract.
4. Contractor's employees, agent or sub-agent shall not smoke or light anything within the premises of the GIPCL and carry match box / lighter or any other explosive and /or inflammable material inside the plant.
5. Contractor shall abide by all the statutory rules and regulations like P.F, Labour Laws etc.
6. Contractor shall issue an appointment order to each casual labourer stating therein the nature of job to be performed by him and fix time for which the concerned labourers are likely to be deployed. Contractor shall also issue a temporary identity card specifying the period for which the labourer has been deployed.
7. Contractor is fully liable for the persons engaged by him for above work; however, GIPCL reserves the right to deduct any amount legally justified towards any liability not fulfilled.
8. Contractor shall indemnify GIPCL from any liabilities arising out of the employment of the manpower.
9. If the contractor fails to complete the allocated job within specified time frame, GIPCL shall get the work done by third party at the risk and cost of contractor.

**11. PAYMENT OF WAGES:**

Contractor shall be responsible for compliance of all statutory rules, regulation, act enforced from time framed by the government such as Factory

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Act, Employee Compensation Act, payment of 'Wages Act', Minimum Wages Act', Provident Fund Act, Payment of Bonus Act, Labor Law Act, maternity benefit act in respect of employees engaged by him for the work and shall have to maintain necessary records. In case any amount becomes due to be payable by him to his employees or to the Government under the above rules, regulation, Acts.

**12. ACCIDENT TO WORKMEN:**

Contractor shall be fully responsible for injury or death of any of your or third party workmen due to any act omission / indiscretion on your part while undertaking the work and contractor shall fully abide by the statutory requirements of the employee's compensation act. GIPCL shall not be liable for any compensation due to accident, death or injury to any of contractor's workmen or any third party due to negligence, act or omission on your part.

**13. LIGHTING:**

Necessary illumination at works area will be provided by GIPCL.

**14. NIGHT / SUNDAY / HOLIDAY SHIFT:**

The qualified and adequate resources must be available on round the clock basis for any emergency job, which may come up at night/Sunday/holiday.

**15. SAFETY ASPECT:**

Contractor shall observe all the safety and security rules and regulation of the GIPCL which are at present in force and which may come into force during the pendency of the contract. Any violation of any rules and regulations will entail immediate termination of the contract.

When contractor moves his lifting tools and tackles to the plant area, required test certificates as per the Factory Act 1948 and the state factories rules has to be submitted to safety Deptt. Safety Deptt. will check the certificates and if found okay, then only materials will be allowed to enter inside the plant. Material inward gate pass will be made only after certification from Safety Deptt. Security Deptt. will inform to Safety Deptt., as & when such tools and tackles brought at the gate for making entry in the maintenance site.

The contractor has to submit the list of required safety gears along with safety equipments available with him to safety Deptt. Safety Deptt will check for quantity and quality of the safety gears and then allowed permission of work. Poor quality material will not be allowed to take inside the Plant. If quantity of required safety equipments is not satisfactory, contractor will not be allowed to carry out the work using such safety gears inside the Plant for the work.

**16. GENERAL SAFETY CLAUSES:**

1. The Contractor shall observe and comply, with regard to his workmen working at Vadodara Plant, the safety norms as per the safety operating standards.



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2. The Contractor shall ensure that his workmen are informed and trained regarding the safety standards to be adopted while operating within the Vadodara Plant and the Contractor shall brief them regarding the same and use of the Personal Protective Equipment ('PPE').
3. The Contractor shall issue safety shoes and safety helmet of IS standard to all his workmen immediately on execution of the work and the contractor shall ensure that his workmen wears the protective equipments at all times during the work operation. Brand name for safety shoe & safety helmet shall be suggested by safety representative of Vadodara Plant.
4. Other safety gears like ear plug, dust mask, hand gloves, safety goggles, gum boots, full body safety uniform and belts, safety net etc. shall be issued and used as per the job requirements. Safety helmet shall be of YELLOW COLOUR ONLY. Contractor will procure safety shoes & safety helmet from a reputed company with at least 12 months' guarantee and shall produce the guarantee certificate and IS standard certificate to the safety department. Contractor should purchase safety shoes of reputed brands. Safety shoes will be issued every year. IS certificate and guarantee certificate must be obtained from the vendor and submitted to the Safety department. Safety shoes should be heat, water, oil and chemical resistant, having an anti-slippery sole of 15298- 2002 make.
5. It is the duty of contractor to ensure that his workmen are wearing required PPEs as per work requirement. The contractor has to maintain the PPE issue register with signature of workmen.
6. Contractor will reissue these PPEs in case of damage or misplacement of the same. Replacement shall be made immediately.
7. The contractor shall be responsible for providing first aid or emergency medical help and treatment to his workmen in the event of any accident or injury.
8. If it is observed that contractor is not issuing required PPEs timely and that of required quality, GIPCL will issue the required PPEs to contract workers and back charge the same with 25% overhead charges of GIPCL.
9. All lifting tools and tackles shall be duly certified by competent person in conformity with the statutory requirements and certificate in form no. 10 as per rule 60 of Gujarat Factories Rules, 1963 and section 29 of the Factories Act, 1948 shall be submitted every year before using such tools and tackles. In case of purchase of new lifting tools and tackles, form no. 10 as per the said rules shall be submitted before they are taken into use. All lifting tools and tackles shall be of reputed make having International manufacturing standard and shall be maintained in proper and workable condition.
10. All vehicles shall be operated by licensed drivers only. All vehicles' PUC to be tested as per Government approved RTO guidelines. All Vehicles must be parked in Parking space designated by GIPCL. If any vehicle is found inside the plant premises other than the parking area such vehicles shall be handed over to Security dept. and their entry shall be cancelled for movement inside the plant premises with immediate effect.
11. All electrical equipment shall be in good condition and free from any defect. Electrical tools & equipments i.e. welding machine, grinding and drill machine etc. may be checked by the electrical engineer of the contractors regularly, every six month at least and report to be submitted to concerned HOD and safety depts.

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12. The contractor shall fill – up Incident notification form (S-I), Incident Investigation form (S-II) and near miss report within time limit as specified in forms, if any accident, Incident, near miss occurred while working at Vadodara Plant.
13. No loose connection / joints allowed in electrical cables during performance of any kind of job.
14. The Contractor shall comply all the new requirements related with safety as informed by the HOD / Safety department from time to time.
15. Penalty to be imposed for Violation of safety norms is proposed as follows:-  
The Contractor & Contract workmen shall strictly adhere to Safety standards / Guidelines as per practices. The list provided below is an indicative list to explain the principles behind safety practice. If the contract workmen fail to comply with safety standards as per category A, B & C below, penalty shall be levied on the contractor as per the table mentioned below:

Category	Classification	Examples / Cases	Penalty
<b>A</b>	<b>PPEs Related</b>	<b>Working without helmet, shoes, safety belt, gloves etc.</b>	<b>Rs. 500 /- per instant.</b>
<b>B</b>	<b>WI Related</b>	<p><b>Failure to adhere to HSE guidelines/plans, careless attitude in material handling,</b></p> <p><b>Machine being used with damaged machine guard, unsafe electrical work</b></p> <p><b>- workout plug top/improper electrical joints/cables lying on ground, electrical equipment working without proper earthing, machine being used without machine guard, Welding machine without ELCB / RCCB of proper rating, Gas cylinder without test certificate, Cylinder cap, NRV / Flash back arrester, Cylinder trolley etc.</b></p> <p><b>Unsafe working practices at height more than 3 meters</b></p> <p><b>Working without permit or non-compliance with permit conditions like hot work, height work etc. as applicable, lifting tools and tackles being used without third party inspection certificates in form no. 9/10 as per Factory Act – 1948</b></p>	<p><b>Rs. 500 /- per instant.</b></p> <p><b>After three incidence, Per incidence Rs. 2500/-</b></p> <p><b>Continuous unsafe acts will disqualify the contractor from further participation in tender of GIPCL.</b></p>

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		<i>etc..</i>	
<b>C</b>	<b>Unsafe Practices</b>	<b>Breach of safe practices by a particular person repeatedly for three times.</b>	<b>Suspend the entry gate pass for one week. After two suspensions his gate pass will be cancelled.</b>

Penalty so levied against the contractors and company employees will be used during the observation of National Safety Day.

**The contractor, workmen following good safety practices in their work area continuously will be rewarded / honored on National safety day.**

**17. REJECTION OF WORK:**

If, as a result of inspection, examination or testing, the GIPCL's Representative / Engineer decides that any materials, work or workmanship is defective or otherwise not in accordance with the Contract, the GIPCL / Engineer/ GIPCL's Representative may reject such material, work or workmanship and shall notify the CONTRACTOR promptly, stating his reasons. The CONTRACTOR shall then promptly make good the defect and ensure that the rejected item complies with the Contract. If Contractor failed to rectify the rejected work or workmanship, GIPCL/Engineer reserves the right to deduct or withhold amount against rejected work or Workmanship. CONTRACTOR shall not entitle for any claim or release of hold payment until rectify the defect up to satisfactory of GIPCL. If Contractor failed to rectify any such defective work or workmanship, GIPCL reserve the right to rectify at risk and cost of the CONTRACTOR and deducted by the GIPCL from any amount due, or to become due, to the CONTRACTOR's dues.

If the GIPCL/Engineer/GIPCL's Representative requires such materials, work or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If such rejection and retesting cause the GIPCL additional costs for the traveling and lodging costs of GIPCL/Engineer's personal for attending the retest, such costs shall be recoverable from the CONTRACTOR by the GIPCL and may be deducted by the GIPCL from any amount due, or to become due, to the CONTRACTOR.

**18. CONTRACTOR'S SUPERVISION:**

The contractor shall, during the whole time the work is in progress, employ a qualified experienced site-in-charge of the works with adequate experience in handing of jobs of this nature and with the prior approval of the GIPCL / ENGINEER. Such in-charge shall be constantly in attendance at the site during working hours. During absence of deputed site in charge contractor will make necessary arrangement to depute another competent persons.

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**19. CONTRACTOR TO REMOVE ALL OFFENSIVE MATTER IMMEDIATELY AND CLEAN-UP:**

All loose materials, wastage, packing materials, cut pieces or other matter of an offensive nature shall not be deposited on the surface, but shall at once be carted away by the CONTRACTOR to some pit or place provided by him away from the site of work and approved by local authorities.

As a part of the work included in this contract, the CONTRACTOR shall completely remove and satisfactorily dispose of all temporary works to the extent directed. He shall tear down and dispose of all temporary works, shall remove or grade, to the extent directed, all plant and equipment, shall satisfactorily dispose off all rubbish resulting from the operations under this contract and shall do all work necessary to restore the territory embraced within the site of his operations to at least as good order and conditions as at the beginning of the work under this contract.

**20. FACILITIES TO BE PROVIDED BY GIPCL:**

- A.** The Company shall provide the following facilities to the Contractor at the site:
- a. Electricity, water and sulphuric acid at nearest available point. Further distribution to be done by contractor at their cost.
  - b. The contractor may visit the workshop to ensure the existing facility. For the facilities other than available, contractor has to carry out the job outside at their own cost.
  - c. First aid facilities as available on chargeable basis.

Apart from the above, no other facilities shall be provided by GIPCL.

**21. WORK MEASUREMENT / CERTIFICATION:**

1. Contractor should maintain one computer with printer for keeping daily records and maintain the data.
2. The Contractor shall be required to furnish satisfactory job completion report to GIPCL. The submission of report should be on **Monthly** basis, the monthly bill payment shall be released based on the certified reports of the works.
3. Inspection of work will be done by Engineer in Charge or his authorized representative. If the work is not found satisfactory engineer in charge reserves the right to take suitable action and shall be binding to the contractor.
4. Residual parameters in circulating water like Phosphate, FRC, Zinc, Calcium Inhibition etc. **shall be monitored and mentioned / informed in Monthly Report**
5. **Quantity of Sulfuric Acid consumption / year to be mention in offer only.** If it exceeds, vendor shall bear additional quantity's cost
6. The proposal shall clearly mention monthly / yearly consumption of chemicals during contractual period.

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**22. BENEFIT PAYABLE IN CASE OF ACCIDENT OCCURRING OUTSIDE PREMISES OR BEYOND THE COURSE OF EMPLOYMENT:**

The Contractor shall provide an insurance coverage (Medical + Death Benefit) for sum of Rs. 01/-Lakh to all his workmen/labour deployed at GIPCL Vadodara for the accident taking place anywhere outside the Company premises or at any place when the workman is not in course of his employment.

**23. FORCE MAJEURE:**

The performance of the obligations herein contemplated may be suspended without incurring the penalty in the event of the subsistence of Force Majeure conditions.

If a Force Majeure situation arises, the affected Party shall promptly notify the other Party in writing of such conditions and the performance shall be suspended as per mutual agreement.

For the purposes of this clause, 'Force Majeure' means an event beyond the control of the Party and not foreseeable by the Party and shall include events of floods, explosions, riots, wars, hurricane, epidemics, any other Act of God, quarantine restrictions, terrorism, government actions and provided always that such acts result in the impossibility of the further performance of the contract.

**24. INDEMNITY:**

The Contractor shall indemnify and keep harmless GIPCL from and against all actions, proceedings, claims, demands, losses, costs, damages and expenses whatsoever which may be brought against or suffered by GIPCL which it may sustain, pay or incur as a result of or in connection with the performance/ purported performance/ non-performance of the contract by the Contractor.

In case, in any litigation pertaining to labour employed through contractor if any direction or order is issued by court at any point of time the contractor shall comply with and implement such direction or order whether passed at the time of award of contract or during the pendency of contract. Further, the Contractor shall indemnify the GIPCL against all consequences arising and affecting GIPCL owing to the compliance of the orders by the Contractor.

**25. GOVERNING LAW AND JURISDICTION:**

This tender document and contract shall be governed by the laws of India and the Courts at Vadodara City shall have jurisdiction regarding the same.

**26. Where any portion of the General Condition of Contract is repugnant to or at variance with any provisions of the Special Condition of Contract, then unless a different intention appears, the provision of the Special Conditions of Contract shall prevail to the extent of such repugnancy of variance.**

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**SECTION-D**  
**SPECIAL CONDITIONS OF CONTRACT**

**1. DETAIL SCOPE OF WORK:**

The detail scope of work and technical specifications for GIPCL-Vadodara is mentioned in Annexure-I

**1.1 FAILURE DURING EMERGENCY:**

During any emergencies, contractor shall have to carry out the work by deploying additional force within four hour notice period failing which GIPCL reserves the right to carry out this work by engaging other party. The expenditure occurred due to such situations, the Contractor will be held responsible & the same will be recovered from the Contractor's monthly bill / any other pending bills along with 15% overhead charges. For repetitive failure of such work for more than two incidents, GIPCL reserve the right to terminate the entire contract by forfeiting all pending dues, Security Deposit & other retention money, if any, after giving 15 days notice to the contractor & this will be binding to the contractor.

**1.2 SCOPE OF CONTRACTOR:**

1. All tools & tackles, tractors, required vehicles to execute the contract will be in the scope of the contractor. The contractor should ensure for healthiness/working conditions of tools, tackles & vehicles.
2. All consumable items like cloth, cotton waste, kerosene, gas, diesel, lubricants, etc will be in the scope of the contractor.
3. All safety/PPEs required during work at site are to be arranged by the contractor.
4. The Contractor shall have to provide necessary facilities including accommodation for their labor at their own cost.
5. Contractor has to depute their full time experienced overall site-in-charge for work execution as per specification and for day to day work planning & coordination with respective department's Engineer-in-charge, to obtain day to day work etc.

**1.2. TO REMEDY DEFECTIVE WORK :**

If the work or any portion thereof shall be damaged in any way excepting by the acts of the GIPCL, or if defects not readily detected by proper inspection shall develop before the final completion and acceptance of the whole work, the CONTRACTOR shall forthwith make good, without compensation, such damage or defects in a manner satisfactory to the ENGINEER / GIPCL. In no case shall defective or imperfect work be retained even if contractor followed all technical specifications. GIPCL will not compromise for quality of materials, works & workmanship.

The CONTRACTOR shall remain liable under the provisions of this clause notwithstanding the passing by the GIPCL of any certificate, final or otherwise or the passing of any accounts.

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**1.3 DAILY DIARY AND PROGRESS REPORT:**

*A daily diary register will be kept in the ENGINEER'S office. The CONTRACTOR will supply all detailed information every day at 9:00 hours for the day preceding and the diary will be jointly signed by the ENGINEER and the CONTRACTOR'S representatives, every day in token of its correctness. A works instruction book, serially numbered will also be kept in the ENGINEER'S office and all day to day instructions will be given in that book. The CONTRACTOR'S representative shall report every day to see these instructions and sign them at the bottom in token of his having seen them.*

*The CONTRACTOR shall supply all information regarding procurement of materials and progress of work, as is required by the ENGINEER for compiling the weekly progress reports. This information shall be supplied by 9:00 hours on every Monday, for the preceding week.*

The contractor's supervisor shall monitor all key parameters trend on weekly, monthly, yearly basis with alert system when deviation is observed and is capable of online access mechanism where data can be seen 24 x 7 by GIPCL personnel and Dailey weekly and monthly detail report of consumption of chemicals, analysis etc will be generated and submitted to GIPCL officer in charge.

**2. PRICE & RATES:**

The rates quoted are FIRM throughout the contract period, rates quoted by the Bidder in the online Price Bid for supply of Chemicals, cost of all labour, transportation charges, all man-power deputation charges, consumables, Rent of online monitoring systems, equipments, pumps and their maintenance charges, all man power, food & accommodation of workers, packing & forwarding, transportation of material up to site (FOR Site), storage and handling at site, safety and statutory compliance, mobilization and de-mobilization, supervision, transportation, loading, unloading, equipment, all tools & tackles, safety equipments & PPEs, Royalties, Rents, Stamp Duties, Central or State Government or Local body or Municipal Taxes or Duties, Turn over Tax, Work Contract Tax, Octroi duty and / or any other duty / tax (excluding Service Tax), levied by the Central, State Government or other Public bodies etc...and such other costs that are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work.

The quoted rates shall be deemed to include for everything mentioned in the specification, all leads & lifts, contractor's overheads & profits for due performance of the work under this contract and such other costs that are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work. The rates shall also include cost for mobilization / demobilization of manpower, equipments, materials, etc...

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The rates shall be firm for entire contract period and also during extension, if required and shall not be subject to any escalation in prices, idle charges for labour, transportation charges, machinery, overhead expenses etc. No price escalation / idle charges shall be due to any reason whatsoever.

The prices / item rates quoted by Bidder shall remain firm till completion of the contract period and any agreed extensions thereafter and shall not be subject to any other escalation, idle charges for labor, machinery, overhead expenses etc. No price escalation / idle charges shall be payable due to delay in work by contractor or due to non-availability of work front by GIPCL or any reason whatsoever.

The value and/or quantum of work may be increased or decreased depending upon day to day requirement. However, item rates remains unchanged and the payment shall be made as per the actual quantity executed as informed & certified by GIPCL representatives.

The price will remain firm throughout the contract period and shall not be subjected to escalation for reason whatsoever.

**3. CONTRACT PERIOD:**

Contract period will be of Two **Years** from the date of commencement (mobilization period will be 15 days from the date of issue of LOI or Work Order whichever earlier).

**4. TERMS OF PAYMENT:**

**A. Conditions of Payment:**

The contractor shall supply the chemicals to GIPCL-Vadodara plant as per the requirements and based on that the MRR (Materials Receipt Report) will be prepared and inspection of the chemicals will be carried out by C&L Department. Contractor shall raise the invoices in duplicate.

MRR inspected by C&L Department, the invoice complete in all respects and with all the said documents, the payment in respect of the same shall be made within 30 days of such receipt of a complete invoice as per the following terms of payment:

- (i) 100% of RA bill along with 100% taxes shall be released against the work executed duly certified by GIPCL. Income Tax (IT) will be deducted at source from monthly RA bills as per the rules in force.
- (ii) Security deposit shall be submitted as per clause no.: 1 of **Section-C**. Security deposit will be returned to the Contractor without any interest after retention period of three months from actual contract completion date as certified by Engineer-in-charge as per clause no.: 1 of Section-C.
- (iii) The Contractor shall submit his Final Bill within a period of three months of the expiration or earlier termination of the contract or any extensions



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that may be granted by GIPCL to the Contractor. GIPCL shall not entertain any bill for any work item after expiration of period of three months.

- (iv) The Contractor shall include all his claims in the Final Bill submitted by him and accordingly the final bill submitted by the Contractor shall be deemed to be inclusive of all and whatsoever the claims that the Contractor may have from GIPCL. The Contractor shall not be entitled to claim any amounts which are not mentioned in the Final Bill and the Contractor shall be deemed to have waived any claims not mentioned in the Final Bill and shall not be entitled to recover the same from GIPCL subsequent to the submission of the Final Bill on any account and GIPCL shall stand absolved of all its liabilities in respect of any such claims not raised by the Contractor in his Final Bill.

**B. Validity and Uniformity of Rates**

The rates shall be valid for a period of **two years** of the Contract Period and shall remain unaltered during the Contract Period.

**5. SUBMISSION OF STATUTORY COMPLIANCES WITH EACH BILL:**

Contractor shall submit each RA bill of work carried out along with following documents.

- (i) Copy of statutory compliance like labour license, wages payment register, EC Policy, PF paid Challan with ECR, etc... to respective bill period.
- (ii) No claim - No arbitration certificate as per Performa, after releasing final bill payment.

Bill submitted without any of the above documents shall not be processed for payment.

**6. MOBILIZATION AND EXECUTION:**

- a) Contractor shall provide required separate & independent site supervisor who will be responsible for supervision and execution of job in specified time with respect to quality, specifications, site preparations, safety, co ordination with GIPCL, issue of work permits, joint measurements, etc... The supervisors shall coordinate with the Engineer-in-charge of GIPCL for proper execution of the job.
- b) Contractor may depute one labour for loading and unloading chemicals equipments and other related jobs.
- c) Contractor shall provide accommodation for the persons deployed by him for the work at his own cost.
- d) The resources required for execution of above jobs will vary from time to time, hence contractor shall mobilize the resources accordingly.

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## **SECTION- E**

### **Scope and Technical Specifications For Cooling Water Treatment at - Baroda**

#### **1. General Description:**

##### **1A. Preamble :-**

Gujarat Industries Power Company Limited (GIPCL), is a premier power Generating Company, adopting Conventional method using Natural Gas & Lignite as a fuel and Non Conventional method – Solar & Wind. GIPCL Baroda unit is located at village Dhanora has two units : Station I - 145 MW (32×3+49×1) & Station II - 165 MW (111×1+54×1) capacity each. The plant is based on combined cycle technology, using Natural Gas as a fuel. Both Stations are operated either at part load or at base load depending on Gujarat Electricity board demand.

GIPCL Baroda is drawing approx. 3300 M<sup>3</sup> water from own French well and 900 m<sup>3</sup> water from GSFC source on daily basis (considering 60% PLF of Station-I & 10% PLF of Station-II ). Out of which 80% water is used for make up in Cooling Water (CW) System and balance 20% is used in service water, fire water, DM Plant and potable water use.

Raw water drawn from sources stored in Reservoir in the plant, get filtered through Pressure Sand Filters (PSF) and fed into the cooling water fore-bay at respective Stations. Approx 4,000 M<sup>3</sup> of water stored in the CW circuit which is continuously circulated through the ADM Brass SB 111C based condenser, Auxiliary Cooling Systems/ pumps through Induced draft Counter Flow cooling tower to achieve the necessary condensation in steam/water circuit. Currently the system is being operated ~ 6.0 COC during continuous operations.

**Although installed capacity of Baroda plant is 310 MW (145 MW + 165 MW), this present contract is to be awarded with consideration of 60% PLF of Station I & 10% PLF of Station II.**

##### **Details of System:**

##### **Station – 1 (145 MW) & Station – 2 ( 165 MW)**

##### **Technical specification of Cooling Towers (both) : ( at 100 % Load )**

01.	Number of Cooling Towers	:	One each per Station ( Total Two )
02.	Number of cells per tower	:	Six in both towers
03.	Type of Cooling Tower	:	Induced Draft (Counter Flow)
04.	Total Circulation rate	:	15000 cu.m / hr. (Approx.) in each
	a) Flow across each condenser	:	13000 cu.m / hr. (Approx.) in each
	b) Flow across heat exchanger of Auxiliary system	:	2000 cu.m / hr. (Approx.) in each
05.	Basin Volume	:	2700 M <sup>3</sup> – St # 1 / 2300 M <sup>3</sup> St # 2

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06.	Evaporation loss	:	165 m <sup>3</sup> /hr. (Approx.) in each
07.	Blow down water for calculation of dosing chemical quantity.	:	450 m <sup>3</sup> /day in each Cooling Tower
08.	Side stream filter available	:	Not Available.
09.	Operating COC	:	6.0
10	ACW pumps flow	:	1050 m3/hr (St I) / 1200 m3/hr (St II)
11	CW pumps) flow	:	6700 m3/hr (St I) / 7000 m3/hr (St II)

**Technical specification of Surface Condenser**

01.	Nos. of Surface Condensers	:	2 (total)
02.	Nos. of water side passes	:	2 (total)
03.	Quantity of cooling water	:	13000 cu.m (Approx) / condenser.
04.	Cooling water I/L &O/L temp.	:	32.0 & 41.0°C (nominal)
05.	Tube Material:		
	a) In Condensing Zone	:	ADM Brass, SB111 C / SB Cr
	b) In Air Cooling Zone	:	ADM Brass, SB111 C / SB Cr G
06.	Tube sheets, Channels & Water Boxes	:	CS IS 2062 / CS SA 516 GR 60.
07.	Piping & Valves	:	CS

**The typical analysis of make-up water is as below:-**

Sr. No.	Parameter	Unit	Range
01.	pH		7.9 – 8.1
02.	Conductivity	Micro-Siemens	350 - 500
03.	Total Dissolved Solid	ppm	200 - 300
04.	Turbidity	NTU	< 2.0
05.	Total Harness as CaCO <sub>3</sub>	ppm	120 - 180
06.	Calcium Harness as CaCO <sub>3</sub>	ppm	50 - 75
07.	M-alkalinity as CaCO <sub>3</sub>	ppm	150 - 200
08.	Chloride as CaCO <sub>3</sub>	ppm	20 - 60
09.	Silica as SiO <sub>2</sub>	ppm	15 - 25
10.	Iron as Fe	ppm	0.2 max
11	Sulphate	ppm	10 - 25

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**Plant Operation Philosophy :**

Station I	3 GT + 1 STG	2 ACW + 2 CW Pumps Operation	Irrespective of Load
	2 GT + 1 STG	2 ACW + 2 CW Pumps Operation	Irrespective of Load
	1 GT + 1 STG	2 ACW + 1 CW pump Operation	Irrespective of Load
Station II	1 GT + 1 STG	1 ACW + 2 CW pump Operation	Irrespective of Load

**1B. Present Cooling Water Treatment Program (CWTP):**

Presently CWTP is executed with online automation system of monitoring and controlling the water parameters of CW system by:

1. Automated monitoring and control CWTP to maintain seamless operation without breaks and prompt communication and response to system upsets
2. Providing Real-time Input data
3. Artificial Intelligence based monitoring
4. Eliminating human intervention and analytical error

And this CWTP includes use of anti scalants, corrosion inhibitor for both Mild steel and Copper, Oxidizing & non oxidizing Biocides, dispersants and bio-dispersants.

Sulfuric acid dosing & Cooling Water Blow Down is done through Auto mode of operation

**Side Stream Filtration is not available**

**2. Technical Requirements / Scope for Proposed CWTP**

The scope of this contract is for management of treatment of Cooling Water (CW) for Steam Turbine Condenser & Auxiliary Cooling water system for the period of two years. The main objective of this Cooling Water Treatment Program (CWTP) is to:

1. Enhance the efficiency of CW system
2. Improve Vacuum at Condenser
3. Operate Cooling Tower at COC of  $7.00 \pm 0.50$  to save water
4. Minimize Algae, Microbial growth
5. Saving on chemical & energy cost
6. Minimize Corrosion / Scale inside the Heat exchangers, Condensers etc.

The aim of this contract is to carry out treatment of CW to control scale; corrosion and fouling with suitable non-chromate based chemicals/ formulations and its executions as per system requirements. The chemicals & its concentrations that are non-hazardous & environmental friendly shall be used to achieve the objective. Since the cooling tower blow down water is directly disposed off from the site without any further treatment, in to effluent conveying channel, Vendor shall ensure that the concentrations of the chemicals, in offered treatment program, does not exceed the consent conditions of the State Pollution Control Board (GPCB) in the final blow down. (GPCB consent parameters attached as Annexure E).

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**The execution of this contract is to be performed strictly with online automation system of monitoring and controlling the water parameters of CW system by:**

1. Automated monitoring and control CWTP to maintain seamless operation without breaks and prompt communication and response to system upsets
2. **On-line Bio flushing and fills cleaning to improve or maintain the cooling tower efficiency.**
3. Providing Real-time Input data
4. Artificial Intelligence based monitoring
5. Eliminating human intervention and analytical error

The online Monitoring system should work round the clock for 365 days to:

- Detect system variances related to scale, corrosion and bio-activity
- Determine corrective actions needed based on proprietary algorithms
- Deliver improved results in water treatment and related processes

**2B. General requirements of proposed CWTP**

a. Vendor shall provide CWTP consisting of:

- Chemicals that are Biodegradable, non-toxic, non-hazardous and non-chromate based.
- Orthophosphate with Zinc & Azole base Corrosion inhibitors for Iron & Copper
- Organophosphate & high stressed Polymeric dispersant for deposit control
- Bio Dispersant
- Oxidizing and Non Oxidizing Biocide

A toxicological test report & MSDS should be submitted along with the offer for all the chemicals supplied. The CWTP shall comprise of zinc as the cathodic inhibitor and stabilized ortho-phosphate as the anodic inhibitors combined as a single formulation. The products offered should be field tested and proven.

b. Vendor should offer the CWTP which is well proven in other industries with similar kind of circulation rate, technically proven & suitable to our plant in terms of metallurgy, environment, safety norms and consent conditions (Annexure I) etc. GIPCL is free to accept / reject the part of schemes or full scheme.

c. The chemicals should not have any deleterious effect on any component of the Cooling water system including Condenser, Heat Exchangers, fill packs etc.

d. A dedicated scale inhibitor cum dispersant program shall be included in the program for dispersion of iron, general scale, and sludge to take care of chances of scaling / deposition inside Heat Exchangers, Condenser and Tower Fill Packs. Treatment should ensure no scaling in above mentioned areas of interest. There should not be reduction in heat transfer capacity of heat exchanger, due to fouling or formation of deposits so as to achieve Vacuum at Condenser at desired level. And also treatment should ensure no pitting across condenser and heat exchangers with corrosion in admissible control.

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e. Effective control of Biological, Microbiological growth shall be provided by using suitable biocides, bio dispersant together. Vendor may opt online CLO<sub>2</sub> generation or own proprietary chemical as Oxidizing Biocide.

f. In GIPCL Baroda Chlorine (through cylinder) dosing is not carried out.

g. The Monitoring and Dosing equipments required for implementing the CWTP shall be brought, installed, commissioned and maintained by the contractor adopting site safety standards. They should be of proven design and fit for the purpose. Electrical power supply will be given by GIPCL at free of cost.

h. The Monitoring and Dosing equipments brought to site by the vendor, shall be operated and maintained by vendor staff at site. Successful vendor shall provide Calibration report of dosing and Monitoring equipments.

i. Chemicals shall be supplied in New HDPE containers to site. The containers must be properly sealed and also shall be labeled properly with name, brand name, batch no, expiry date etc.

Each batch of chemicals should have test certificate that all chemicals are bio-degradable (preferably within 24hrs), environment friendly and do not fall under banned category. Vendor shall take back the empty containers, carboys of chemicals.

j. Vendor shall provide the quality control check procedure for the each chemical supplied. Each dispatch of the chemical shall have quality check details from the manufacturer's lab. These chemical upon receipt will be first analyzed in GIPCL lab before accepting the consignment and will be accepted/rejected based on analysis results. In case active ingredient found lower with respect to minimum of the value specified by party, deduction from the delivered cost on prorata basis, shall be done for said total chemical supplied in that lot. In addition to above, cost of testing if done from lab other than GIPCL's own laboratory, shall be borne by vendor for such case. Opinion of GIPCL officer regarding acceptance / rejection of chemicals will be considered final.

k. Vendor shall send labor along with consignment for unloading of chemical carboys and drums. The labor shall be equipped with required PPE's - safety shoes, safety helmets, chemical resistance gloves, chemical resistance dress, splash proof goggles etc. as per GIPCL site safety standards. Any violation observed & reported in plant area by concerned officer shall attract penalty, as mentioned in penalty clause section.

l. Vendor should maintain required barrel pumps, transfer pumps at site for handling of chemicals.

m. Total quantity of chemicals should be sufficient and reasonably adequate at site.

n. Vendor is advised to visit plant site and submit proposal only after extensive survey, ascertaining quality of make-up, circulating water, blow down, equipment metallurgy etc. Vendor is free to quote chemicals based on formulations for water quality data to meet the guaranteed parameters. Vendor is required to refer instructions points and have to either provide acceptance of each or give comments before Pre Bid meeting.

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o. Vendor shall depute one trained, experienced & competent Site In charge / chemist as mentioned in Service section. And if require can depute one helper for managing day to day affairs.

p. Site in charge in presence of GIPCL official shall carry out any require analysis to monitor the necessary treatment parameters. Lab facilities shall be provided to the vendor for the above analysis. If any laboratory chemicals not available in GIPCL Laboratory store then vendor should arrange required lab chemicals with own cost for supplied chemicals analysis and cooling water parameters analysis.

q. Corrosion coupon will be assessed (Monthly) jointly by GIPCL and vendor.

r. The vendor shall submit detail operating procedure, manual of monitors & contingency procedure

s. Microbiological analysis of circulating water will be carried out by vendor.

t. Successful Vendor shall provide analytical method of analysis along with active content, details of instruments/reagents required for analysis of various chemicals supplied & active content in bulk chemicals and their value before start of the treatment.

u. The vendor (authorized representative) shall visit quarterly on site and take cooling water sample (each phase) and sample analyze shall carry out in third party reputed Laboratory. Reports shall be submitted to GIPCL within 15 days.

v. **Sulfuric acid & Electricity will be supplied by GIPCL at free of cost. But Oxidizing Biocide-e.g.Sodium Hypochlorite (NaOCL), NaClO2 etc. will be supplied by vendor at his own cost.**

w. Supervision of unloading of H2SO4 from tanker to storage tank is in vendors scope

**2C. Performance / Guarantee Parameters of proposed CWTP:**

**a. Plant operating / Chemistry limiting parameters:**

**Following levels of Parameters / Inhibitors / Chemicals in circulating water are to be maintained / Guaranteed**

Sr. No.	Parameters	Residual value in CW
01.	pH	8.00 to 8.20
02.	Residual Zinc as Zn	Min. 1.0 ppm
03.	Residual Orthophosphate as PO4 (Inorganic)	Min.4.5 to 5 ppm
04.	Residual Organophosphate as PO4 (Organic)	Min. 2 to 2.5 ppm
05.	Residual Total Phosphate as PO4	Min. 7.0 ppm

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06.	Residual Chlorine	0.2 ppm
07.	Iron Corrosion	Max. 4.0 mpy
08.	Copper Corrosion	Max. 0.20 mpy
09.	Suspended Solids	Max. 50 ppm
10.	Ryzner Index Value	Neutral
11.	Cycle Of Concentration ( CoC )	7.00 ± 0.50
12.	Total Bacterial Count (TBC)	Max. 10 <sup>5</sup> Counts/ml
13	Sulphate Reducing Bacteria (SRB)	Max. 100 Counts/ 100 ml
14	Azole	Min. 1.0 ppm

**b. Chemistry based Performance parameters:**

These are identified as the ones that need to be controlled & maintained within the limits to ensure long term integrity of the plant.

**Scale control** - It is evaluated based on the Ryzner index values & other observations described below.

- The Ryzner Index value should be neutral in all circumstances.
- Test heat exchanger that will be inspected on monthly basis & should be free from scale deposition.
- It is not envisaged to carryout cooling tower fill cleaning. Visual inspection of the fills & or weight gain measurements may be carried out from time to time. These results should not indicate any abnormal level of deposition. However vendor can reasonably suggest for online cleaning of cooling tower fill packs provided that he should be able to demonstrate the performance improvement after cleaning.
- Deposit monitor: Visual inspections, weight of deposit measured monthly should reveal no deposition. Calculation of heat transfer co-efficient should reveal consistent values
- Any deviation in above shall attract penalty as mentioned in penalty clause.

**Silt deposit control** - Presence of silt in fills, cooling tower basin, condenser water box & condenser tubes will be monitored.

**Bio-fouling control** - Performance is measured based on the results indicated by the bio-fouling monitor & lab results for biological activity.

- Visual inspection of the cooling tower structure, fills, columns, culvert, surfaces should not reveal any biological growth.
- Total bacterial or viable count (TBC) should be less than 10<sup>5</sup> counts/ml..
- Total Sulphate Reducing Bacteria (SRB) count should be less than 100 counts/100ml.
- Non oxidizing Biocide to be dose on hold up volume.
- Cooling tower/condenser/heat exchange surfaces inspections as mentioned previously should not reveal any bio fouling.
- Free residual chlorine of 0.2 ppm is to be achieved.



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- Any deviation in above shall attract penalty as mentioned in penalty clause.

**Corrosion** - Performance of treatment program in terms of corrosion control will be evaluated based on the following measurements

**Copper corrosion** –

- Corrosion rate should be less than 0.20 mpy as measured using standard CU-Ni coupons (90-10). ASTM standards will be followed for measurements/ preparation techniques & installation of the coupon.
- Water-soluble Cu levels in CW will be measured at monthly interval.
- The traces of copper in condenser deposit analysis (if any) shall be within the justifiable limits of copper corrosion rate.
- Any deviation in above shall attract penalty as mentioned in penalty clause

**Iron / Mild Steel corrosion** –

- Corrosion rate should be less than 04 mpy as measured using standard Mild Steel coupons. ASTM standards will be followed for measurements/ preparation techniques & installation of the coupon.
- Water-soluble Iron levels in CW will be measured at monthly interval.
- The traces of iron in Heat exchanger deposit analysis (if any) shall be within the justifiable limits of iron corrosion rate.
- Any deviation in above shall attract penalty as mentioned in penalty clause

**Microbiological Induced Corrosion** -

- Micro biological induced corrosion rate (MIC) should be in control. Heat exchanger surface inspection & spool piece or any dismantled equipment/pipe work inspection should reveal no evidence of MIC.

**c. Plant Technical Performance parameters**

These parameters essentially guaranty following parameters.

- **Cycle Of Concentration (COC):** You shall maintain agreed COC in circulating water throughout the contractual period. ( desire COC = around  $7.00 \pm 0.50$  )
- Any deviation in above shall attract penalty as mentioned in penalty clause
- **Vacuum at Condenser :** You shall maintain vacuum at mutually agreed level.

**2D. Alternative chemicals for water Treatment:**

The Vendor may sometimes find it necessary to change one or two chemicals during the treatment based on his experience regarding efficacy of the chemicals in use. Since the Vendor shall be in better position to know regarding nature of make-up, circulating water and effectiveness of the treatment, after carrying out the treatment for some time, allowing use of alternative chemicals is considered in the interest of achieving better results.

For this purpose vendor shall specify all such alternative chemicals along with their unit rates in the quotation itself. Main chemical shall be taken for the purpose of bid

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evaluation and calculating guaranteed cost. Any chemical not in the bidding list, if needed can be agreed after mutual discussion and prior approval of unit in charge. Based on the suitability, the proposal will be evaluated & accepted/rejected by the owner. However, the overall guaranteed cost shall remain the same.

### **2E. Change in Dosing**

The normal blow down rate shall be based on the set COC targets. It is not envisaged to increase the blow down rate with the optimum chemical being dosed. If vendor fails to meet the performance parameter and recommend for increased blow down rate, equivalent additional chemical quantities to keep the optimum concentration shall be dosed. Vendor shall dose the same at his own cost. Change in chemical concentration / formulation, if any required, shall first have to undergo technical approval.

### **2F. Monitoring:**

#### **1. On Line Monitoring System :**

The Vendor shall provide a comprehensive solution to problems arising in CW system when stressed to its technical limit and upset conditions which results in expensive operational problems such as corrosion, scaling, Bio fouling etc.

The Vendor shall provide software based CWTP monitoring system which gives real time data which can be monitored from remote location and depending on the stress developed in the system can increase or decrease chemical addition.

The software based CWTP monitoring system offered by Vendor shall have following facility:

- a. Detects & measures corrosion, scaling & microbial stresses in the system
- b. Responds through proprietary microprocessor algorithms to system variables & to take actions before performance deteriorates
- c. 24\*7 monitoring & control of pH, Conductivity, Temperature, FRC and ORP with data logging and reporting.
- d. Monitoring of corrosion and pitting rates on two types of chosen metallurgy.
- e. Monitoring of corrosion & scale inhibitor dosage & their residual
- f. System shall be able to analyze, monitor & control residual polymer in Cooling water
- g. Communicates to keep informed through Web Based Alarm Management System
- h. Automated Onsite Alarms to notify system situations. Remote alarm monitoring feature. Automated alarm response to concern's mobile.
- i. Optimized chemical dosage with pump PID settings. Dosed based on live reading & set point basis.
- j. Smart control over each parameter during upset, control logic gets updated to compensate upset in a best way.
- k. Water upset can be expected for various reasons and all upsets are interlinked with each other. Artificial intelligence logic to identify accurate remedy for each upset taking all possible outcomes into matter.
- l. System Calibration Alarm & its Auto / Manual Calibration facility

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- m. System shall monitor all key parameters trend on weekly, monthly, yearly basis with alert system when deviation is observed and is capable of online access mechanism where data can be seen 24\*7 by GIPCL personnel.
- n. Customer Interface platform for checking historical and live system data.
- o. Daily/weekly/monthly detailed analysis report will be generated, stored in a system for three years at least and will be shared with GIPCL.

Data, inputs received from this system will be analyzed, interpret by vendor to predict health of critical heat exchangers in terms of fouling, scaling, pitting etc.

**2. Manual Equipment monitoring System:**

Vendor will set up following monitoring equipment & stations for monitoring at his cost. Vendor should clearly mention details of the monitoring instruments which will be supplied with the package for use at site on returnable basis. The monitoring systems installed shall be of standard, proven design.

While ascertaining the performance, results of monitors will be taken into considerations. Following monitors shall be installed –

a) Bio fouling monitor

a) Deposit monitor - Replacement of installed tube at quarterly frequency with fresh one and analyze the deposit sample in your lab & submit report.

b) Coupon Rakes – for analyzing Corrosion on 30 / 45 days cycle. Coupons will be fixed at the starting of the treatment and replaced for analysis. Vendor shall provide ASTM a 53 grade -MS & Cu Ni coupons each.

c) Test heat exchanger – This shall be installed by vendor and will be opened once in month for inspection of internal condition w.r.t. scale, corrosion, fouling etc.

e) Analysis kits with reagents for special analysis (e.g. TBC, SRB etc.)

After completion of contract period rest of chemicals will be return to the vendor. Or otherwise supplier will provide the free service up to consumption of all the chemicals.

The above mentioned monitoring equipment are identified as the minimum requirement for smooth operation of the system however other monitoring techniques, if required, will be identified and installed on mutual agreement.

All the instruments shall be calibrated at certain frequency as per manufacturer recommendations and result should be submitted.

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**2G. Services:**

Vendor will depute site in charge / Chemist preferably B.Sc. – Chemistry / Diploma – Chemical and having minimum five (05) years experience in the Cooling Water Treatment as site in charge. If require Vendor may depute one labor for daily routine chemical dosing work, loading / unloading of chemicals & equipments.

- a) The chemist must have adequate knowledge & experience in the field. The analysis of Raw material done by the chemist in the presence of our officers will be considered final for material rejection / acceptance. The site in charge will work on all working days during G shift i.e. 9:00 to 17:30 hrs.
- b) Site in charge shall set all required dosing functions / parameters of metering pumps, so that during 17:30 hrs to next day's 09:00 hrs and on holidays the dosing of chemicals in CT shall not get affected.
- c) Lunch / Breakfast / Tea- Coffee etc. availed by deputed staff of Vendor will be on chargeable basis as per GIPCL's policy. Township facility is not available.
- d) Vendor shall issue dosing chemicals from stores and keep required quantity at designated dosing location, maintain the operating levels in dosing tanks.
- e) Unloading of chemicals is in vendors scope
- f) Take daily field round, collect the technical data associated with CW treatment regime.
- g) Daily analysis of makeup & cooling water for required parameters will be carried out by Vendor's site in charge / chemist.
- h) Keep informed Head of C&L department regarding activities of treatment and monitoring observations.
- i) At regular interval, readings of CW system & condenser shall be collected by vendor and submitted with comments/suggestions & action taken.
- j) Submission of Monthly Reports on water quality, monthly consumption of chemicals, observations & recommendations to head C&L department
- k) Availability of technical expert at site once in two months or as & when required on call basis.

**2H. Dosing Equipments:**

All required chemicals, online CLO<sub>2</sub> generation if any, shall be dose through metering pumps / equipments only. Vendor will set up dosing pumps, equipments & stations for dosing, monitoring at his own cost. Vendor should clearly mention details of the dosing & monitoring equipments which will be supplied with the package for use at site on returnable basis. The dosing pumps, monitoring equipments installed shall be of standard, proven design.

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**2 I. Penalty Clause**

Penalty shall be applicable in the following cases:-

- **Guaranteed Parameters** :

<b><u>Parameters</u></b>	<b><u>Desire Value / Results</u></b>	<b><u>Monitoring Frequency</u></b>	<b><u>Penalty</u></b>
Cycle of Concentration (COC)	7.00 ± 0.50	15 days Average	If desire value not achieved in given time interval then 10% the cost of chemicals for that particular period shall be deducted.
Iron / Mild Steel Corrosion	< 4.0 mpy	Monthly	
Copper Corrosion	< 0.2 mpy	Monthly	
TBC Count / 100 ml	< 10 <sup>5</sup>	Monthly	
SRB Count / 100 ml	< 100	Monthly	
Iron & Copper in CW	< 0.1 ppm	Monthly	
Test Heat Exchanger, Deposit Monitor & Bio Fouling Monitor Performance	Practically no deposition	Monthly	

01. If the Algae growth control, desire Condenser Vacuum, Tower fill pack condition and effect of polymeric dispersant are not achieved as per satisfaction of concerned officer, then 10% of the cost of chemicals for the particular period shall be deducted.
02. Fore-bay strainer cleaning frequency shall be limited to 24/year (Each station), if it exceeds Rs.1, 000/- per strainer cleaning shall be back charged.
03. Landed cost of the chemical shall be considered for calculating the deductions.
04. In the absence of skilled / unskilled manpower for continuously two or more days, penalty of Rs.1000/- and Rs.500/- per day respectively shall be recovered from vendors bills.
05. If any deputed contract person found not equipped with required PPE ( as per safety norms of GIPCL ), then Rs. 500/- will be charged on each instance as penalty to Vendor. And on repeated violation of safety norms, ( more than three times ) particular deputed person of vendor will be asked to be relieved from GIPCL plant.
06. Corrosion coupon shall be provided in advance, if vendor fail to fulfill the requirement then 10% cost of the chemicals for the particular period shall be deducted.

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- 07 If any force shutdown occurs in plant due to incompetence of CW treatment, then 20% cost of the chemicals for total contract period shall be deducted.
- 08 All chemicals should be dozed through dozing pumps. If chemicals dozed without dozing pump continuously for three or more days, cost of chemical for particular days will be deducted from the Bill
- 09 Additional chemical required more than prescribed to maintained the system healthiness , should be provided ( after consulting Head C&L )by the vendor at free of cost.
- 10 If any of the online Monitoring System is not working continuously for more than 5 days then cost of chemical for particular period will be deducted from the Vendors Bill.

**2 J. Mobilization**

Vendor should mobilize chemical in such a way that at least two month stock is available at plant, so that treatment can go smoothly uninterrupted for 60 days.

**2 K. Instructions to Bidder:**

**Kindly go through the following before submitting the bid**

- Representatives of the Vendor shall essentially visit the site before submission of technical offer for data collection (other than provided in scope of work), for evaluating current status of cooling tower, monitoring system & dosing arrangement and for discussion, clarification on Scope of work.
- Vendor team shall collect required water samples for analysis in their laboratory to develop formulation of treatment regime
- Vendor shall indicate the maximum consumption of each regular chemical to be supplied by him on the basis of 60% PLF of Station#1 & 10% PLF of Station#2. Maximum payable / guaranteed contract amount shall be calculated for yearly actual consumption.
- Vendor shall mention maximum consumption of sulfuric acid / year. If it exceeds, vendor shall bear additional quantity's cost
- Vendor should specify the time period for stabilization before start of treatment program. Maximum stabilization period shall be of 30-45 days from startup of cooling water treatment
- Vendor to specify Active ingredient (w/v %) of all formulation / chemicals supplied and their dosage quantity per day along with offer
- Residual parameters in circulating water like Phosphate, FRC, Zinc, Calcium Inhibition etc to be mentioned in offer
- Vendor to ensure COC of circulating water at  $7.00 \pm 0.50$

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**SECTION- F**

**TECHNICAL BID**

- Preferred parameters / constituents of chemicals and their respective desire residual contents in circulating water is tabulated below. However the Vendor may mention his own preferred parameters of chemicals & desire residual in CW as per his own expertise which is suitable to GIPCL CW System
- The Vendor to mention Product Name, % Active Content, Estimated quantity and their Dosage with Residue in CW system in the table
- Quantity of Chemicals to be mentioned for two years on the basis of 60% PLF of Station # 1, and 10% PLF of Station II

Sr. No	Preferred Parameters	Product Name	Qty. estimated per Year		%Active Content req.	Dosage ppm	<u>Desired/ preferred C.W. Residual</u>
			ST#1	ST#2			
1	Ortho Phosphate - Corrosion Inhibitor (Zinc & Phosphate base)						PO4-Min 4.5 to 5.0 ppm & Zn-Min 1 ppm
2	Polymeric Dispersant						95% Ca3(PO4)2 inhibition
3	Organo Phosponate-Antiscalant						Min 2.0 to 2.5 ppm. Total PO4 = min 7.0 ppm
4	CU Inhibitor - Azole						Min 1.0 ppm
5	Bio- Dispersant						---
6	Oxidizing Biocide 1 / chemicals for CLO2						0.2 PPM FRC in CW
7	Oxidizing Biocide-2						
8	Non Oxi. Biocide 1-						----
9	Non Oxi.Biocide 2 –						----
10	Fill Pack Cleaner						----

- Vendor to mention Sulfuric Acid consumption / year in proposal. If it exceeds, vendor shall bear additional quantity's cost
- Vendor to mention chemical quantities to keep COC of CW at  $7.00 \pm 0.50$
- The proposal shall clearly mention monthly / yearly consumption of chemicals during contractual period. Cost of additional quantities of chemicals required (over and above mentioned in the offer) to maintain the system, shall be born by Vendor
- Vendor shall have to strictly adhere to the mentioned chemical quantities, their active Content, dosage & their Residual in CW system during the contractual period to avoid penalty
- Non Oxidizing biocides preferably would be of carbamate & quarternary compound

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**UN-PRICE BID**

Quantity & Cost of Chemicals to be mentioned for Two years

Sr. No	Item Particular	Estimated Qty.		Unit of Measure	Cost for 2020-21	
		ST#1	ST#2		Rate	Estimated Price Rs.
1	Ortho Phosphate-Corrosion Inhibitor (Zinc & Phosphatate base )				<b>To be Submitted Online through n-Procure only</b>	
2	Polymeric Dispersant					
3	Organo Phosponate Antiscalant					
4	CU Inhibitor - Azole					
5	Biodispersant					
6	Oxidizing Biocide-1 / chemicals for CLO2					
7	Oxidizing Biocide-2					
8	Non Oxi. Biocide 1					
9	Non Oxi.Biocide 2					
10	Fill pack Cleaner					
11	Instrument Rent					
12	Manpower Cost					
TOTAL COST Rs.						

- Taxes extra as applicable
- **Vendor shall raise the invoice for the batch of chemicals received and accepted by GIPCL's concerned officer.**
- **Manpower cost for Station # 2 is not be mentioned as Station # 2 is running as per grid demand only.**
- **Rent of monitoring equipments / dosing pumps for Station # 2 is not be mentioned.**
- **Cost of additional quantities of chemicals required (over and above mentioned in the offer) to maintain the system, shall be born by Vendor**

**As Station # 2 (165 MW) is running as per Grid demand, dosing of chemicals in it's Cooling tower shall be carried out by vendor manually and not by pumps (including oxidizing Biocide)**

**Also Online monitoring and other equipments are not to be installed at Station # 2 Cooling Tower Site.**



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**SECTION- G**

**Instructions to the Vendors Kindly submit this Section G with all proofs & necessary documents along with Technical Bid.**

Sr. No.	<b><u>Administrative Requirements</u></b>	Accept Yes/No	Remarks
1.	Proof of <b>Three years of Successful Experience Certificate</b> of Online Automation & Monitoring of similar type of Cooling Water System submitted		
2.	Vendor is having R&D set up / Technical collaboration with renowned Lab		
	<b><u>Monitoring Requirements</u></b>		
1.	Is the Automation & monitoring system proprietary and belongs to the bidder company (Parent company)		
2.	24*7 remote monitoring and controlling center available		
3.	if yes, then Please share the details like address, contact numbers, web site		
4.	Is System providing Real Time Input data with artificial intelligence base monitoring		
5.	Is System capable to detect & measures corrosion, scaling & microbial stresses in the system on current real time basis.		
6.	Is System capable to detect & measures pH, Conductivity, Temp, FRC & ORP with data logging & reporting		
7.	Is System Communicates to keep informed through Web Based Alarm Management System and Automated Onsite Alarms to notify system situations.		
8	Is there any Remote alarm monitoring feature with Automated alarm response to concern's mobile.		
9	System Calibration Alarm & its Auto / Manual Calibration facility available		
10	System shall monitor all key parameters trend on weekly, monthly, yearly basis with alert system when deviation is observed and is capable of online access mechanism where data can be seen 24*7 by GIPCL personnel. – <b>Yes /No</b> (If Yes then GIPCL personnel would like to see and cross check it on-line).		
11	Monitoring of corrosion & scale inhibitor dosage & their residual. - Is the System capable of measuring the residuals of all recommended chemicals online, display stand alone separately and then inject chemicals automatically on a real time basis?		
12	Is System is capable to analyze, monitor & control residual polymer in Cooling water. – <b>Yes /No</b>		
13	chemicals provided are Bio Degradable & environment friendly		
14	Cooling Water Blow Down with Remote operated Valve provided		
15	Sulfuric Acid Dosing in Cooling Tower carried out with Remote operated Valve provided – <b>Yes / No</b>		
16	Manual monitoring Equipments provided		
	<b><u>Any Deviation</u></b>		

**SECTION- H**

**ANNEXURE-A**

**A.1 PROFORMA FOR CONTRACT SECURITY-CUM-PERFORMANCE**

**GUARANTEE BY SELLER / CONTRACTOR.**

(To be executed on non-judicial stamped paper of approximate value)

B. G. No. \_\_\_\_\_ Date: \_\_\_\_\_

1. WHEREAS Gujarat Industries Power Company Limited having its office at PO: Petrochemicals, Dist. Vadodara – 391 346, Gujarat State, India (hereinafter referred to as "The Company/Owner" which expressions shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) has entered into a contract with M/s. \_\_\_\_\_/ has placed a purchase order on M/s.....(hereinafter referred to as "Contractor(s)/ Seller(s)" which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns ) for \_\_\_\_\_on the terms and conditions as set out inter alia, in the Company's contract No./ P.O.No.....date .....and various documents forming part thereof hereinafter referred to as the "said contract" which expression include all amendments, modifications and/ or variations thereto and where as the Contractor(s)/ Seller(s) has agreed for due execution of the entire contract and guarantees its performance including any parts executed through any other agencies/ subcontractors

AND WHEREAS one of the conditions of the "said contract" is that "contractor(s)/seller(s) shall furnish to the owner a Bank Guarantee from a bank for ....% (.....percent) of the total value of the "said contract" against due and faithful performance of the "said contract" including performance guarantee obligations of the contractor(s)/seller(s) for execution/ supplies made under the "said contract."

2. We .....Bank having its branch office at .....do hereby agree and undertake to pay the amount due and payable under this guarantee without any demur merely on a demand from the Company stating that in the opinion of the Company, which is final & binding, the amount claimed is due by reason of default made by the Contractor(s)/ Seller(s) in performing any of the terms & conditions of the said Contract including defect liability obligations, in fulfilling the performance guarantee obligation or loss or damage caused to or would be caused to or suffered by the Company by reason of any breach by the said Contractor (s)/ Seller(s) of any of the terms & conditions of the contract. Any such demand made on the Bank by the owner shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However our liability under this guarantee shall be restricted to Rs. ....(Rupees.....only).

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3. We undertake to pay to the Company any money so demanded not withstanding any dispute or disputes raised by the contractor(s)/ Seller(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not dependent or conditional on the owner proceeding against the Contractor(s)/ Seller(s).
4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said Contractor(s)/ Seller(s) but shall in all respect and for all purposes be binding and operative until payment of all money due or liabilities under the said contract(s)/ Order(s) are fulfilled.
5. This guarantee will remain valid up \_\_\_\_\_ days or \_\_\_\_\_ whichever is earlier. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the OWNER/PURCHASER and further agrees that if this guarantee is extended for a period as mutually agreed between bidder & owner/purchaser, the guarantee shall be valid for a period so extended provided that a written request for such extension is received before the expiry of validity of guarantee.
6. We .....Bank further agree with the Company that the company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract(s)/ Order(s) or to extend the time of performance by the said Contractor(s) Seller(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s)/ Seller(s) and to forbear or enforce any of the terms and conditions relating to the said Contract(s)/ Order(s) and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor (s) / Seller(s) or for any forbearance, act or omission on the part of the Company or any indulgence by the Company to the said Contractor(s)/ Seller(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.
7. Notwithstanding anything contained herein before, our liability shall not exceed Rs.....(Rupees.....only) and shall remain in force till.....Unless a demand or claim under this Guarantee is made on us within three months from the date of expiry we shall be discharged from all the liabilities under this guarantee.

Date.....  
Corporate Seal of the Bank

.....Bank  
By its constitutional  
Attorney Signature of  
duly Authorized person  
On behalf of the Bank  
With Seal & Signature code

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**A.2 PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT**

(To be executed on non-judicial stamped paper of appropriate value)

B. G. No. \_\_\_\_\_ Date: \_\_\_\_\_

1. WHEREAS M/s.Gujarat Industries Power Company Limited having its Corporate Office at PO: Petrochemicals, Dist.Vadodara – 391 346, Gujarat State, India (hereinafter called "The Company Owner" which expression shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) has issued tender paper vide its Tender No.....for -----  
--- (hereinafter called "the said tender")to M/s.....(hereinafter called the said Tenderer(s)" which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns and as per terms and conditions of the said tender, the tenderer shall submit a Bank guarantee for Rs..... (Rupees.....only) towards earnest money in lieu of cash.
2. We .....Bank having its branch office at ..... do hereby undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Company stating that in the opinion of the company which is final and binding, the amount claimed is due because of any withdrawal of the tender or any material alteration to the tender after the opening of the tender by way of any loss or damage caused to or would be caused or suffered by the Company by reason of any breach by the said tenderer(s) of any of the terms and conditions contained in the said tender or failure to accept the letter of Intent Agreement or that the amount covered under this Guarantee is forfeited. Any such demand made on the Bank by the owner shall be conclusive as regards the amount due and payable by the Bank under this guarantee, However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....(Rupees.....only).
3. We undertake to pay to the Company any money so demanded notwithstanding any dispute or disputes raised by the tenderer (s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not dependent or conditional on the owner proceeding against the tenderer.
4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said tenderer(s) but shall in all respect and for all purposes be binding and operative until payment of all money due or liabilities under the said contract(s)/ Order(s) are fulfilled.

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5. We .....Bank Ltd. further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the finalization of the said tender and that it shall continue to be enforceable till the said tender is finally decided and order placed on the successful tenderer(s) and or till all the dues of the company under or by virtue of the said tender have been fully paid and its claims satisfied or discharged or till a duly authorized officer of the company certifies that the terms and conditions of the said tender have been fully and properly carried out by the said tenderer (s) and accordingly discharges the guarantee.
6. That the Owner Company will have full liberty without reference to us and without affecting this guarantee to postpone for any time or from time to time the exercise of any of the power of the owner under the tender.
7. Notwithstanding anything contained herein before, our liability shall not exceed Rs..... (Rupees.....only) and shall remain in force till..... (Date to be filled up shall be 180 days from the date of submission of Bid).

Date.....

.....  
Bank Corporate Seal of  
the Bank By its  
constitutional Attorney

Signature of duly Authorized person  
On behalf of the Bank  
With Seal & Signature code

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**ANNEXURE-B**

**PERFORMA CERTIFICATE**  
(No claim, No arbitration)

To,

M/s. Gujarat Industries Power Company Limited  
P.O. Petrochemical  
Dist.Vadodara — 391346

Dear Sir,

**Subject:** \_\_\_\_\_

**Ref:** Work Order

No.: \_\_\_\_\_ Dated \_\_\_\_\_

We hereby confirm with free consent as under:-

1. The measurements certified in final bill is full and final. We accept all the certified measurements and no claim related to the measurement is left.
2. The payment certified in that or above referred Lol / contract is full and final. We accept this, and no claim related to payment is left.
3. The rates of the Lol / contract and its amendments are firm till completion of contract and extension period. We shall not claim any escalation against these rates.
4. Along with the contract referred, the ARBITRATION CLAUSE also perishes i.e. we will not resort to arbitration.
5. No extra items are left to be settled.
6. We do not have any claims against any item related to the Lol than those items certified in the bills.
7. We are accepting the recoveries or hold amount from our bills, if any, made by GIPCL against non compliance or as decided by GIPCL within terms & conditions of contract.
8. We have paid royalties, taxes for all the materials procured by us, for carrying out the works for above Lol and we indemnify GIPCL from any liability arising thereof.
9. In case of any disputes arising in future related to payment of royalties, all liabilities of settlement of dispute and its payment if any, will be borne by us.
10. We have paid wages to all the workmen who were deployed by us for carrying out above referred work as per prevailing Minimum wages act. We have also fulfilled all requirements of the P.F. Act. We have maintained all records necessary as per the statutory requirements. We hereby indemnify GIPCL from any disputes arising in future related to payment of labours, Provident Fund, etc.. and confirm that all liabilities of settlements of disputes and their payment is our responsibility.

The above confirmation will come into effect as soon as payment from final bill after due recoveries will be received by us.

For, M/S. \_\_\_\_\_  
Signature, Stamp and date.

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**Form-A**

**List of qualifying staff to be submitted with physical documents**

<b>Sr. No.</b>	<b>Name of Supervisor</b>	<b>Qualification</b>	<b>Experience</b>

Contractor / Authorized Representative's  
Signature, Company's / Organization's Seal & Date

Note: Form-A of Bid without price shall be submitted with Part-I

**Form-B**

**List of Tools & Tackles to be submitted with physical documents**

<b>Sr. No.</b>	<b>Description</b>	<b>Nos.</b>	<b>Status</b>

Contractor / Authorized Representative's  
Signature, Company's / Organization's Seal & Date

Note: Form-B of Bid without price shall be submitted with Part-I

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**ANNEXURE-C**

**(Performa for daily work done report/measurement sheet)**

**Name of Work:**

**Name of Agency:**

**Work Order No.:**

**DAILY WORK DONE REPORT FOR DATE: \_\_\_\_\_**

**Name of Supervisor of Contractor: \_\_\_\_\_**

**Sign of Engineer-in-charge (to be taken at 08:30 AM to 08:45 AM): \_\_\_\_\_**


\_\_\_\_\_  
Sign of Contractor's  
site-in-charge

Total nos. of trips certified by me

\_\_\_\_\_  
(Shift-in-charge, Main Control Room)

Name: \_\_\_\_\_

Date: \_\_\_\_\_





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**ANNEXURE E**

**GPCB Consent conditions for Treated Effluent (Cooling Water Blow Down)**

<b><u>Parameters</u></b>	<b><u>Unit</u></b>	<b><u>Limit</u></b>
		<b><u>(Max.)</u></b>
<b>p H</b>	-	<b>6.5 - 8.5</b>
<b>Temprature</b>	0 C	<b>40.00</b>
<b>Color (Pt-Co scale )</b>	units	<b>100.00</b>
<b>T.S.S.</b>	mg / lt	<b>100.00</b>
<b>Oil &amp; Grease</b>	mg / lt	<b>10.00</b>
<b>Phenolic Compounds</b>	mg / lt	<b>1.00</b>
<b>Cyanide</b>	mg / lt	<b>0.20</b>
<b>Fluoride</b>	mg / lt	<b>1.50</b>
<b>Sulphide</b>	mg / lt	<b>2.00</b>
<b>Ammonical Nitrogen</b>	mg / lt	<b>50.00</b>
<b>Arsenic</b>	mg / lt	<b>0.20</b>
<b>Total Chromium</b>	mg / lt	<b>2.00</b>
<b>Hexavalent Chromium</b>	mg / lt	<b>0.10</b>
<b>Copper</b>	mg / lt	<b>3.00</b>
<b>Lead</b>	mg / lt	<b>0.10</b>
<b>Mercury</b>	mg / lt	<b>0.01</b>
<b>Nickel</b>	mg / lt	<b>3.00</b>
<b>Zinc</b>	mg / lt	<b>5.00</b>
<b>B.O.D. ( 3 Days - 27 deg. )</b>	mg / lt	<b>100.00</b>
<b>C.O.D</b>	mg / lt	<b>250.00</b>
<b>Chloride</b>	mg / lt	<b>600.00</b>
<b>Sulphate</b>	mg / lt	<b>1000.00</b>
<b>T.D.S.</b>	mg / lt	<b>5000.00</b>
<b>Insecticides</b>	mg / lt	<b>Absent</b>
<b>Bio - Assay Test</b>	-	<b>min - 90% survival - 96 hrs</b>

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**ANNEXURE-F**

*(To be submitted on Company's Letter Head)*

**Declaration cum Undertaking for Safety Laws and Regulations Compliance**

I \_\_\_\_\_ on behalf of .....Name of Party/Company.....hereby confirm, agree and undertake that all the Statutory and Safety Laws and Regulations of the applicable Authority/ies shall be strictly followed for all types of works at the site during the period of the Contract, if awarded to me.

Signed and Stamped by the  
Authorized Signatory  
Of the Bidder

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**ANNEXURE- G**

*(To be submitted on Company's Letter Head)*

**Declaration for Contractual Litigations**

**Please Tick (✓) whichever is correct option**

I \_\_\_\_\_ on behalf of .....Name of Party/Company.....hereby confirm that I /We have

- a. Not invoked legal recourse e.g. litigation against any Govt, of Gujarat Undertakings / Depts. / Authorities and Govt. of Gujarat supported companies / undertakings / organizations for the last three( 03) years. There are no ongoing/pending legal matter(s) with any of the Govt. of Gujarat Undertakings / GoG supported Companies, including GIPCL.

**Please Tick( )**

**OR**

- b. Invoked legal recourse e.g. litigation against any Govt, of Gujarat Undertakings / Depts. / Authorities and Govt. of Gujarat supported companies / undertakings / organizations for the last three( 03) years.

**Please Tick( )**

If "b" is applicable, please submit the details for the same.

The above is true, as on date, to the best of my knowledge. Any breach/ false statement in this regard shall amount to disqualification of the Bid being submitted herein.

Signed and Stamped by the  
Authorized Signatory  
Of the Bidder