

**REQUEST FOR QUOTATION (RFQ) / INQUIRY  
FOR PAINTING WORKS AT KMPCL SITE, CHHATTISGARH**

<b>Part - A: Painting /Re-Painting of Pipe Rack Structural Steel members of Pipe Rack D &amp;E, and Part – B: Sand/Short Blasting &amp; Outer Side Painting of Condenser Storage Tank</b>	
<b>Plant: 6x600 MW KSK Mahanadi Thermal Power Plant (TPP), Chhattisgarh</b>	
<b>Company Name: KMPCL</b>	<b>RFQ / Inquiry No: 2023-24/KMPCL/HYD/281</b>
<b>Location: Janjgir-Champa Dist. Chhattisgarh</b>	<b>Revision – 0</b>
	<b>Dated: 4<sup>th</sup> June 2024</b>

1.	Scope of Work	As per the attached Annexure – 1A & 1B
2.	BOQ	As per the attached Annexure – 2
3.	Last date of Submission of offer	<b>Within 10 days from the date of Tender. 17-00 Hrs of 15<sup>th</sup> June 2024</b>
4.	Working Period	
	a. Duration of Work	Duration of the Work: 6 months for “Pipe Rack Works” 4 Months for “CST Tank”
	b. Mobilization	As per EIC Confirmation
	c. Date of Start of Work	Shall be informed.
	d. Notice to Proceed	Shall be intimated 7 days in advance from the date of visit.
	e. Completion of Work	Total work completion shall be within 4 to 6 Months.
	f. Validity of work	One Year (as standard)
6.	Payment Terms	100% upon completion of works within 30 days upon the receipt of Commercial invoice duly certified by EIC & Plant Head.
7.	Correspondence Address for Inquiry	KSK MAHANADI POWER COMPANY LIMITED 8-2-293/82/A/431/A, Road No. 22, Jubilee Hills, Hyderabad – 500033, Telangana. (Offer Submission) <b>Contact: Mr. GS Bajwa – 7728888516</b> <b>Email: <a href="mailto:gurpreet.b@ksk.co.in">gurpreet.b@ksk.co.in</a>, <a href="mailto:contracts@ksk.co.in">contracts@ksk.co.in</a> <a href="mailto:mukeshkumar.b@ksk.co.in">mukeshkumar.b@ksk.co.in</a></b>
8.	Site/ Works Address	KSK MAHANADI POWER COMPANY LIMITED (KMPCL), Nariyara Village, Akaltara Tehsil, Janjgir - Chempa Dist - 495556, Chhattisgarh.
9.	Special Note	Please attach stamped and signed copy of all the inquiry / RFQ documents along with your offer.

- A. SCOPE OF WORK :** As per the attached
- **Annexure – 1A:** Painting /Re-Painting of Pipe Rack Structural Steel members of Pipe Rack D &E and
  - **Annexure – 1B:** Sand/Short Blasting & Outer Side Painting of Condenser Storage Tank.
- B. BILL OF QUANTITY (BOQ):** As per the attached **Annexure -2**

- Painting /Re-Painting of Pipe Rack Structural Steel members of Pipe Rack D &E and
- Sand/Short Blasting & Outer Side Painting of Condenser Storage Tank.

**C. QUALIFYING CRITERIA (EXPERIENCE):**

1. Bidder should have minimum 2 to 3 years of experience in this type of work in last five years and must have all requisite documents like PF/ESIC and labour licence and skilled unskilled manpower and tools and plant. He has to submit copy of said document as a proof.
2. Bidder should have executed similar work and should enclose proof of the same.
3. Bidder should submit documents supporting the safe working hours executed during the period of the contract.
4. Bidder shall also submit documents supporting to the related work carried out.
5. Bidder should have carried out similar jobs in 125MW & Above Units and relevant WO Copies should be submitted prior to finalizing the order.
6. Bidder's Batching Plant details, list of tools & tackles should be submitted for KMPCL review to perform the job without any discrepancy in order to gain the level of confidence.

The experience claimed by the bidder shall be considered, if the said experience is in the name of the bidder directly and not by subletting the contract. Firm to furnish satisfactory work completion certificate of executed orders, if not have worked with KMPCL earlier.

During the work period, the successful bidder has to depute well familiar experienced Engineers/ diploma holders/ Senior Supervisors. Bidder has to submit the proof about the qualification and experience of labour, supervisor and engineer deputed for cleaning jobs along with tender documents such as copy of appointment letters or P.F. submission Challan, for last 2 years along with qualification of personnel's who will be deputed for this work.

**D. FQP / QAP:**

Contractor shall submit their FQP (as applicable) for further review and approval from the Owner. In case contractor don't have such a quality plan then they have to follow KMPCL's FQP / QAP as per mutual discussions.

**E. DEFECT LIABILITY PERIOD / WARRANTY CLAUSE:**

The contractor shall provide a warranty of **1 (one) year** for the completed works and in case of any fault the same shall be reinstated by the contractor without any financial implication to the Owner.

**F. MANPOWER PLAN TO BE SUBMITTED (TENTATIVE):** To be submitted by the contractor along with offer.

**G. GENERAL CONDITIONS OF THE CONTRACT:**

1. **General Scope of Contractor: Applicable only if the Vendor is working @ KMPCL Plant Site:**
  - a. Contractor should deploy competent workers for the particular job and should authorize his workers for carrying out electrical works such as welding, grinding and other works carried out by electrical appliances.
  - b. The contractor should approach the EIC for electric supply point(s) and all electric connections and circuits shall be drawn with his approval. In case of non-compliance of the above, or in case of any mishap or accident the contractor shall be solely responsible for all the consequences.
  - c. All the portable tools are to be used with three plugs and three wires for single phase systems/ 3 phase four wire system for 3 phase system only, so as to avoid electrical shock while working. Proper earthing to be checked both at supply end at tools end.
  - d. Three wire sockets and properly insulated electrical boards with earth leakage circuit breakers (ELCB) are to be used by Contractor. ON/OFF switch should be connected in live wire and not in neutral wire. This should be ensured by qualified electrician.
  - e. Contractor shall submit the latest General Medical Test Report of the manpower deployed by the contractor along with the documents for issuance of necessary Gate Pass.

- f. Special Tools supplied by the OEM's shall be issued by the Owner (as per availability basis) to the contractor on returnable basis. In case of some alternate arrangement is required against the Special Tool (non-availability) the same shall be supported by the contractor to save the time during overhauling.
- g. The contractor shall maintain all the tools & tackles in healthy condition throughout the period of work. Contractor shall arrange all the required General Tools for execution of the scope of work including the testing equipment. The testing equipment and tools & tackles should be of reputed make.
- h. All the consumables required for completion of work to be supplied by contractor, unless specified separately.
- i. Scrap, Waste and Effluent disposal if any to be dumped at the designated place within the plant premises by the contractor as per the instruction of Engineer- in-charge.
- j. As per the working plan the Supervisor should be available in all the working shifts for close monitoring.
- k. The contractor shall make his own arrangement of Crane, Hydras, Tractor trailers, Trucks, Hand trolleys, manpower, lifting tools & tackles etc. for all types of material handling job inside KMPCL's plant area at his own cost. This includes loading, unloading and transportation of the material / spares inside plant working area for maintenance work, issue of materials / spares from stores to site of work, return of material back to stores, disposal of scrap & old unused material – from site of work to workshop - from site of work to stores - from the site to the scrap yard / place as specified by the Engineer-in-Charge.
- l. Contractor shall ensure to possess all the required permits (PTW) and isolation form the EIC, prior to the start of the works.
- m. Contractor shall ensure hot and height permits availability before start of job. Execution of job without hot and height permit will be the responsibility of Contractor and shall attract penalty as decided by KMPCL EIC.
- n. Contractor shall ensure 100% illumination at the work place. Any hindrance caused shall attract penalty under unsafe conditions.
- o. Any scaffolding required for doing the job shall have to be erected and dismantled by the contractor. Material for the same shall be arranged by Owner unless separately specified in the contract.
- p. Proper housekeeping is a must during entire work period. Hazardous material and inflammable material should be handled so as not to cause harm to the plant or people.
- q. In case of any ambiguity / dispute about any conditions of contract, Special Conditions of Contract will prevail over General Condition of Contract.
- r. Work will be carried out on round the clock basis or agreed time.
- s. Supervisor will be available on shift basis for close monitoring.
- t. All the tests carried out at site must submit test reports in spiral binding from in 6 sets.
- u. If any work/consumable/tools and tackles not mention above which is required for completion of the work is in the scope of contractor.
- v. The decision of Engineer-in-Charge shall be final in regard to all matters relating to the scope of work.

**2. General Scope of Owner: Applicable only if the Vendor is working @ KMPCL Plant Site:**

- a. Permits will be issued by the Owner as per the requirement and based on the documents.
- b. All the available relevant drawing will be shared as per the requirement of scope of work.
- c. Spares required against the activities will be provided by the Owner.
- d. The electricity, water, compressed air etc., shall be provided at fixed points by KMPCL on the basis of 'as is where is" available in the plant. However, further extension cabling / hoses / piping etc. shall be arranged by the contractor.
- e. Drinking water facility shall be made available by the Owner.
- f. EOT Crane along with operators etc. under the scope of owner, if not specified separately.
- g. Workshop facility for machining activities if not specified separately shall be provided by the Owner.

**3. Statutory Compliance: Applicable only if the Vendor is working @ KMPCL Plant Site:**

- a. Contractor has to produce WC policy/ESIC as applicable, before the commencement of work.
  - b. All provisions of the Factory Act 1948, The Chhattisgarh Factory Rules 1950, Indian Electricity rules 1956, and other rules and regulations should be strictly adhered by the contractor.
  - c. The contractor shall ensure compliance with all the Acts, Rules & Regulations pertaining to Health, Safety as applicable from time to time.
  - d. If any of KMPCL safety officers finds that Contractor is not following the Safety Rules and regulations including use of personal protective equipment at site, he is authorized to stop your work immediately. In case of violation of rules after issue of warning letter contractor shall be liable to penalty as decided by the concerned / safety section.
  - e. Safety of the workers to be engaged in the job is Contractor's responsibility and KMPCL will not be responsible for any type of compensation to Contractor's worker, if any accident occurs during the work and Contractor will be liable for all payments, maintenance etc. to the worker / workers' family as per statute or rule in force in the State or the Country as a whole.
4. **Insurance of The Workmen: Applicable only if the Vendor is working @ KMPCL Plant Site:**
- a. The contractor shall insure all his workmen for payment of compensation in case of any accident under the provision of Workmen's Compensation Act. The supporting papers/documents in this regard shall have to be submitted before start of the work.
  - b. The Contractor shall ensure that all their personnel and machinery are covered adequately under an appropriate insurance policy and shall keep Owner fully indemnified against any claims arising whatsoever during the execution of the work. Contractor shall produce necessary documentary proof before the commencement of work at Site.
5. **Safety: Applicable only if the Vendor is working @ KMPCL Plant Site:**
- a. Induction & Training: All the persons to be deployed by the contractor have to undergo safety induction before being engaged in any job and moreover they have also to undergo safety training regularly.
  - b. Contractor should provide all safety equipment's to their workers such as safety shoes, helmets, goggles, aprons, welding screen, safety belts, appropriate hand gloves etc. Good and approved quality appliance shall be arranged and replaced by new ones as soon as worn out by Contractor at his own cost.
  - c. Work should be carried out with all PPEs and under KMPCL safety guidelines
  - d. If any of KMPCL safety officers finds that Contractor is not following the Safety Rules and regulations including use of personal protective equipment at site, he is authorized to stop the work immediately. In case of violation of rules after issue of warning letter, the contractor shall be liable to penalty as decided by the concerned / safety officer / EIC.
  - e. Adequate supervision must be ensured during execution for compliance of safety measures.
  - f. In case of injury to person, the incidence is to be reported to concerned section without delay and all legal formalities completed at earliest.
  - g. Safety of the workers to be engaged in the job is Contractor's responsibility and KMPCL will not be responsible for any type of compensation to Contractor's worker, if any accident occurs during the work and Contractor will be liable for all payments, maintenance etc. to the worker / workers' family as per statute or rule in force in the State or the Country as a whole.
6. **LD Penalty:**

**Penalty Clause Table:**

Sr. No.	Activity Leading to Penalty	Penalty
1	Delay in mobilization of manpower & total T&P as per manpower deployment plan & T&P list as per WO. Delay in Work due to unavailability of Proper consumables.	Deduction from the bill @ Rs.5,000 per day

2	Delay in Job due to bad workmanship including unskilled manpower deployment	Removal of specific workman from site and penalty of Rs. 10,000 for each workman per occasion.
4	Noncompliance of quality requirement, protocol submission etc.,	Penalty @ Rs.10,000 per each incident
6	Scrap left out after completion of each job	Penalty @ Rs.5,000 for every 24 hrs after completion of each job
7	Noncompliance of safety/legal norms	Penalty decision taken by KMPCL safety In charge as per policy and may go up to termination of contract
8	(a). The Penalty shall only be applicable if the issue it is attributable to the contractor. (b). The Penalty shall have a maximum upper limit of 5% of Basic Contract Value.	

**7. TERMINATION**

The Work Order/Contract is subject to termination by the owner at any time before the contractor/agency commences mobilization of manpower and resources or initiate the work.

**8. QUALITY AND SAFETY**

You shall implement all applicable quality norms in relation to the performance of the Scope of Work by establishing a well-equipped laboratory and a dedicated quality engineer. You shall also comply with all safety norms and maintain industrial practices for safety of men, material and also cover them under insurance. KMPCL shall be completely indemnified from any obligations arise out of any accident, incident or loss of men, material and property.

**9. SPECIAL NOTE**

Kindly note, any payment made under this Work Order whether as advance or otherwise, is strictly for providing the services as per this Work Order. In any circumstances, any payment given under this Work Order shall not be adjusted against any outstanding dues, of whatsoever nature, towards KMPCL or any company of KSK Group. In case service is not provided within time stipulated in completion schedule or is not in accordance with the agreed quality, the party/contractor shall refund the entire advance amount within 7 days of intimation in this regard from KMPCL, without any prejudice.

**10. PROGRESS REPORTS**

You shall provide final report in mutually agreed formats for circulation among all the relevant parities.

**11. CONFIDENTIALITY:**

No party shall disclose this "WO" or any part thereof, without the written consent of the other party, except that such consent is not required when such disclosure must be made to a lender, Statutory Authority or in pursuance of any directive from a Regulatory Authority.

**12. INDEMNITY:**

Notwithstanding anything contained in this "WO", the Contractor hereby agrees and undertakes to indemnify and keep indemnified Owner from and against all and any claims, demands, action, charges, losses, reasonable costs (including without limitation the fees, disbursements and other charges of counsel), expenses, claims, damages, penalties and liabilities that Owner or its Directors or Officers may incur or suffer as a result of, arising out of or in connection with breach by the Contractor of any of its' obligations, undertakings or covenants contained in this 'WO'.

**13. FORCE MAJEURE**

Neither of us shall be considered to have defaulted in the performance of our respective contractual obligations under this Contract, if such non-performance is as consequence of force majeure which shall mean any event beyond the reasonable control of the parties including but not limited to the acts of God, earthquake, typhoon or cyclone, floods, lightening, landslide, fire or explosions, environmental pollution, plague or epidemics, strike and lockouts, (lasting more than fourteen (14) consecutive calendar days except, sabotage, blockade, war, invasion, act of foreign enemies hostilities (whether

war to be declare or not), civil war rebellion, revolution, insurrection / or military usurping power or confiscation or trade embargoes or destruction or requisition by order of any Government or any public authority. However, the affected party shall take all measures to mitigate the impact of such force majeure. Commercial difficulty shall not be force majeure.

14. **ARBITRATION**

All disputes or differences whatsoever arising out of this “WO” which cannot be settled through mutual negotiations shall finally be settled by arbitration through arbitration in accordance with the provisions of the Arbitration and Conciliation Act 1996. The venue of such arbitration shall be Hyderabad. The decision of the Arbitrator shall be final and binding on the Parties.

15. **JURISDICTION**

Parties agree that the courts at Hyderabad shall have the exclusive jurisdiction over all disputes and matters that arise under or pursuant to this ‘WO’.

16. **NOTICES**

Any notice, request or instruction permitted or required to be given hereunder by any party to the other shall be in writing and shall be deemed sufficiently given if delivered personally against receipt or sent by Registered Post A.D or by Speed Post / courier with A.D. at the address of the parties mentioned in the WO.

**H. DEVIATION:**

In case of any deviation during the submission of the offer, the bidder must fill the same in the below formats for technical & commercial deviations (if any).

- **Technical Deviation**

Sr.no	Reference Clause No.	Deviation Taken

- **Commercial Deviation**

Sr.no	Reference Clause No.	Deviation Taken

17. **Personal Conduct:**

Entering of any of contractor’s person into the factory under influence of alcohol / drugs is strictly prohibited. Further any act of sabotage to Owners resources with mala fide intentions shall be taken very seriously and immediate removal of the person(s) will be effected.

## ANNEXURE – 1A

### SCOPE OF WORK FOR “PAINTING /RE-PAINTING OF PIPE RACK STRUCTURAL STEEL MEMBERS OF PIPE RACK D &E”

#### A. TECHNICAL SCOPE OF WORK:

1. To provide workmen skill& semi-skilled and unskilled with machine tools support structural for application of Primer and Paint.
2. Re painting of all structural steel members at all elevation and direction of Pipe Rack D&E as per following.
  - Repainting of two coats of epoxy paint after proper cleaning (manual/mechanical).
  - Repainting of corroded location /points after proper cleaning (Manual/mechanical) and application of one coat of epoxy primer and two coat of epoxy paint.
3. Scaffolding staging preparation of platform for removing of Rusting corrosion cleaning (Manual/Mechanical) surface preparation priming & painting as per KSK specification. Scaffolding material is in KMPCL Scope.
4. The items listed in the heading of tables of paint systems is indicative only, however, the agency is fully responsible for carrying out all the necessary painting, coating and lining on internal surfaces as per the requirement. **Total Quantity – 550 t - D& E Pipe rack.**
5. **Work Standard** -Work to be executed as per KMPCL specification and other relevant Indian and International standard.
6. Shifting, Placing & Clamping of Scaffoldings and shuttering materials, Ladder, Rope & Movable Platform shall be in the scope of Contractor (Shuttering materials provide by KMPCL).
7. Housekeeping, cleaning is in scope of Contractor and as per the instructions of engineer.
8. Removals of Scaffoldings materials, after completion of work shall be in the scope of Contractor.
9. Fooding and transportation of man power shall be in scope of contractor and accommodation shall be in the scope of KMPCL.
10. All types of required Tools like vibrators, other laying tools, Tackles & Consumables (paint brush, emery paper, cleaning tools) and transportation shall be in the scope of contractor.
11. Contractor shall be deploy required manpower along with supervisors for completing the work within stipulated time.
12. Contractor shall be bound to follow Industrial safety norms.
13. Arrangements of required PPEs shall be in contractor’s scope.
14. PF, ESIC, Police verification and any other statutory requirement for Workforce and Safety of the contractor materials are in contractor’s scope.

#### B. SPECIAL CONDITIONS FOR THE WORK

1. Taking / receiving Paint Primer THINNER and related materials from KSK store.
2. On availability of FRONT, painting for the same shall made accessible for painting by scaffolding and staging. And immediately removed after completion of painting work.
3. Removal of dirt/ rust cleaning / priming painting of pipe rack structural in phase manner.
4. The paint manufacturer's instructions shall be followed as far as practicable at all times for Best results.
5. Contractor has acquainted himself with site condition and visited the plant’
6. Particular attention shall be paid to the following:
  - a. Instructions for storage to avoid exposure as well as extremes of temperature.
  - b. Surface preparation/cleaning prior to painting shall be followed.
  - c. Mixing and thinning of primer and paint.
  - d. Application of paints and recommended limit on time intervals in between coats.
  - e. Workmen involved on the painting work are familiar with the paint and painting work.
  - f. The quantity of work may vary up-to 10% positive or negative side.

#### C. Documents-The agency shall perform the work in accordance with the following documents

- i) Job Procedure
- ii) 2-Quality Plan
- iii) Painting protocol.
- iv) Any other approved document. By KMPCL.

## ANNEXURE – 1A

### SCOPE OF WORK FOR “PAINTING /RE-PAINTING OF PIPE RACK STRUCTURAL STEEL MEMBERS OF PIPE RACK D &E”

- D. Quality Standard-** All jobs to be carried out as per KMPCL approved FQP.
- a. Manual and mechanical cleaning will be done as per site requirement on painted surface before application of two coat of paints with in adequate interval as per paint OEM recommendation.
  - b. If location /point is rusted corroded than same shall be cleaned properly inspected with KSK engineer and first Primed and then application of two coats of finish paint to be carried out.
  - c. DFT of One coat of primer-60-80- total (Epoxy Resin Primer )
  - d. DFT of Two Finish Coat >100-120 Micron (Epoxy Finish Paint)
  - e. Visual inspection will be compulsorily carried out before priming /painting.
  - f. During Humid /wet weather condition priming and painting is to be avoided.
- E. KMPCL Scope-**
- a. Electricity and Water will be provided at one location.
  - b. Primer and Paints & Thinner.
  - c. Thinner consumption quantity will be 10% free of cost of paint/primer.
  - d. Scaffolding Material in Owner scope. However, erection and dismantling shall be in Contractor scope.
- F. T&P / MATERIALS**  
All tools and equipment’s like wire brush sander machine set, painting machine, DFT Meter, clean waste cotton, cloths for surface cleaning and related consumables and all type of PPE for working at all level for painter and workmen and staff for successful completion of this work.
- G. TENTATIVE SCHEDULE OF MANPOWER AND T & P:**

Sl.No	Description	Tentative manpower anticipated
1	Painter	06
2	Rigger	02
3	Helpers	04
4	Painting Supervisor /Technician	02

The list of tools and plant are listed are minimum. However, for time bound completion this list is not exhaustive.

Sl.No	Description of T&P Anticipated	Qty
1	PVC Measuring Beaker ½ litres and 1 litres/2 litres.	02 set
2	Electric potable Paint Blender	02 set
3	Scrapper /wire brush /Sander /Sandpaper /Clean waste cloth	Lot
4	Roller /Brusher	Lot
5	Safety PPE.	Lot
6	Electric Distribution Board &lighting set	02 Set
7	Comparator set	01 Set
8	DFT Meter	01 No
9	Manila Rope /Pulley /Painting Cradle	04 set
10	Aluminum ladders Extendable Aluminum Ladder up to 15 feet and 20 feet long	02 set

Above requirement is estimated minimum resources, however for timely completion of work the contractor may increase as per requirement.



**Annexure-1B Scope of Work**  
**For Sand/Short blasting & outer side painting of Condenser Storage Tank**

**A. Scope of Work.**

1. To provide workmen (skilled & semi-skilled and unskilled) with machine, tools, support, structure for application of Primer and Paint.
2. Short blasting / Painting of outer Portion of CST.
3. Scaffolding staging preparation / de-staging of platform for sand blasting and painting as per KSK specification
4. The items listed in the heading of tables of paint systems is indicative only, however, the agency is fully responsible for carrying out all the necessary painting, coating and lining on outer surfaces as per the requirement. **Total Quantity – 1185 m2 (Approx.)**
5. Work to be executed as per KMPCL specification and other relevant Indian and International standard.
6. Taking / receiving Paint Primer THINNER and related materials from KSK store.
7. The paint manufacturer's instructions shall be followed as far as practicable at all times for Best results.
8. Contractor has to get acquainted himself with site condition and visit the plant.
9. Particular attention shall be paid to the following:
  - a. After surface preparation & before painting the surface to be cleaned with clean clothes and vacuum cleaning machine.
  - b. Mixing and thinning of primer and paint.
  - c. Application of paints and recommended limit on time intervals in between coats.
  - d. Workmen involved on the painting work are familiar with the paint and painting work.
  - e. The quantity of work may vary @ + / - 10%.

**B. Documents-**

The agency shall perform the work in accordance with the following documents

- a. Job Procedure
- b. Quality Plan
- c. Painting protocol.
- d. Any other approved document by KMPCL.

**C. Location – Condenser Storage Tank Area in U # 2, 3, 4**

**D. Quality Stranded-**All jobs to be carried out as per Owner approved FQP

- a. Cleaning to be done through short blasting to SA 2.5 grade Procedure for preparation and mixing of paint will be strictly followed as per Paint OEM.
- b. If location /point is rusted corroded than same shall be cleaned properly inspected with Owner engineer and first Primed and then application of two coats of finish paint to be carried out.
- c. DFT of One coat of primer-60-80- total.
- d. DFT of Two Finish Coat >100-120 Micron.
- e. Visual inspection will be compulsorily carried out before priming /painting
- f. During Humid /wet weather condition priming and painting is to be avoided.

**E. KMPCL Scope-**

- a. Electricity and Water will be provided at one location.
- b. Primer, Paints & Thinner.
- c. Thinner consumption quantity will be 12.5% free of cost of PAINT QUANTITY.

**Annexure-1B Scope of Work**  
**For Sand/Short blasting & outer side painting of Condenser Storage Tank**

**F. Agency Scope-**

All tools and equipment 'Manpower are tabulated below.

**G. Schedule of Man Power/Tools and Plants**

Sl.	Description	Tentative Manpower Requirement
1	Blaster	02
2	Painter	02
3	Rigger	03
4	Compressor operator/ Electrician	01
5	Helpers	03
6	Painting Supervisor /Technician	02

The list of tools and plant are listed are minimum; however for time bound completion, this list is not exhaustive.

Sr. No	Description of T&P	Qty
1	PVC Measuring Beaker ½ litres and 1 litres/2 litres.	02 set
2	Short Blasting set with 45 KW compressor with moisture filter at out let of compressor and inlet of hopper	01 set
3	Short blasting material PS Ball	30-40 t
4	Airless painting machine (Medium Capacity with spare nozzle and 30m long hose	01 set
5	Vacuum cleaning machine 1400 wmc	01
6	Scraper /wire brush /Sander /Sand paper / Roller /Brusher	Lot
7	Clean waste clothe	50kg
8	Safety PPE.	Lot
9	Electric Distribution Board & lighting set /exhaust fan	02 Set
10	Surface Comparator set	01 Set
11	DFT Meter	01 No
12	Manila Rope /Pulley /Painting Cradle	04 set

All above listed items will be checked at site and performance test of the same will be carried out. Above requirement is estimated minimum however for timely completion of work same may be increase to any extent.

## Annexure-2

### **BOQ for Painting /Re-Painting of Pipe Rack Structural Steel members of Pipe Rack D &E & Sand/Short blasting & outer side painting of Condenser Storage Tank**

S.no	Description of work	Unit	Qty	Rate	Amount
<b>1A</b>	<b>Painting /Re-Painting of Pipe Rack Structural Steel members of Pipe Rack D &amp;E</b>				
	Re- painting of all structural steel members at all elevation and direction of Pipe Rack D&E To provide workmen skilled/unskilled, machine tools, support structural for application of primer & paint.  (1). Repainting of two coats of epoxy paint after proper cleaning (manual / mechanical).  (2). Repainting of corroded location /points after proper cleaning (Manual/mechanical) and application of one coat of epoxy primer and two coat of epoxy paint.	MT	500		
<b>1B</b>	<b>Sand/Short blasting &amp; outer side painting of Condenser Storage Tank</b>				
	Scaffolding staging preparation / de-staging of platform for surface preparation (removing existing coating) and Two coats painting. Cleaning standard SA 2.5 1 COAT OF Primer 2 COATS OF PAINT Tank Dimensions –(Dia-10m x height 10.8m Dome Height 0.9 m)	Sq.m	1195		
	<b>Total</b>				
	<b>GST @ 18%</b>				
	<b>Total Value With GST</b>				