



**OWNER:
THE TATA POWER COMPANY LIMITED**

**TITLE OF WORK TO BE AWARDED:
Services for ESP overhauling of Trombay Unit 8 during major shutdown**

ENQUIRY REFERENCE NO.: CC26JG029

NOTICE INVITING EXPRESSION OF INTEREST (EOI) FOR-

Services for ESP overhauling of Trombay Unit 8 during major shutdown

Enquiry reference no.: CC26JG029
Title of Work: Services for ESP overhauling of Trombay Unit 8 during major shutdown
Type of Bidding: E-tendering (through Ariba online portal) / Two Part (Technical and Price bids under separate envelopes)
Contact Details: Contact Details: All communication including EOI submission shall be addressed to following officer/s: Ms. Juhi Gaur Email: juhigaur@tatapower.com Copy of all communications shall be marked to (Cc): Mr. Kailas Surve Email: ksurve@tatapower.com

The Tata Power Company Limited (“Project Manager”) on behalf of M/s Tata Power Company Limited (“Owner”) invites Expression of Interest (EOI) from interested parties for the Two-Part e-Tendering Process of following Relevant Work Package:

Plant Details	Tender Fee	Bid Security	Estimated package value
The Tata Power Company Limited, Trombay Thermal Power plant Chembur	INR 2000/- (INR One Thousand Only) To be submitted along with EOI.	INR 50,000/- (INR Fifty thousand Only). Bid Security to be submitted as a Bank Guarantee at the BID stage (and not with EOI)	Approx. 50 lakhs

Table 1

1. INTRODUCTION:

The Tata Power Company Limited (TPC) is among the largest private sector Power Utility companies in India with presence in Generation, Transmission and Distribution of Power through conventional and renewable sources.

The tendering/ procurement activities for this Project are being managed from Tata Power’s following Office:

The Tata Power Company Limited,
Trombay Thermal Power Station,
Corporate Contracts,
5th Floor, Station B, Chembur-Mahul,
Mumbai 400074, Maharashtra, India.

2. BRIEF SCOPE OF WORK:

This Notice is for inviting Expression of Interest for ESP water washing, clinker removal & internal inspection, Replacement of rapping motor with gearbox, ESP Field Alignment work, Replacement of emitting electrodes etc for overhauling of ESP at Trombay

Detailed Scope of Work for this Contract shall be provided in the Tender / RFQ document to all potential buyers submitting the valid EOI with due tender fees.

3. TENDER FEE & TIMELINES:

a) Interested parties meeting the "Bidder Pre-Qualification Requirements" specified under point no. 4 in this document can request tender document and participate in the bidding process by submitting the Expression of Interest (EOI) Letter along with the Tender Fee Payment Details to the contact details mentioned below not later than deadline specified below. Request for extension of EOI submission date will be not be entertained.

b) Interested bidders should submit the Expression of Interest (EOI) letter and tender fee payment details to below mentioned email addresses:

- Mails shall be addressed to (To): juhigaur@tatapower.com
- Must Mark a copy to (Cc): ksurve@tatapower.com

EOI / requests without complete information and communication as above within deadline shall be liable to be rejected and will not be considered further.

c) Tender Fee, as indicated in the Table1 above may be paid through **NEFT** as per details for payment of Tender Fee given in Table2 below:

Table 2

Details for payment of Tender Fee:	
Bank details for submitting Tender fees through bank transfer / NEFT:	Beneficiary Name: The Tata Power Company Limited Bank Name: HDFC Bank A/c no: 00600110000763 IFS Code: HDFC0000060 A/c type: CC Branch Name & Address: HDFC Bank, Maneckji Wadia Building, Nanik Motwani Marg, Fort, Mumbai 400023
Deadline for tender fee payment and submission of EOI:	20th June 2025

d) Expression of Interest letter to be submitted along with tender fee payment details should include the following details:

- A covering letter duly stamped and signed by an authorized signatory clearly indicating the Tender Reference number and your EOI to participate in the tendering process.
- Tender fee payment details / reference no (ensure that tender fee is received by us within specified deadline)
- Bidder to indicate authorized person name, contact number and e-mail id (mandatory) of the person to whom RFQ / tender and all other communications to be addressed for this tender.

e) Detailed Bid Document (also referred as RFQ) shall be issued through Tata Power e-tender portal (Ariba System) only to the parties submitting a valid EOI as per terms mentioned in this document.

4. BIDDER PRE-QUALIFICATION REQUIREMENTS:

Interested parties to note that Bidder shall be required to fulfill the following bidder pre-qualification requirement / criteria in order to qualify for the subject work. Bidder will be required to submit relevant supporting documents to demonstrate their qualification during the bid submission stage against Tender document / RFQ and bidders not found meeting the pre-qualification requirements given below will be disqualified from the tender.

4.1 TECHNICAL REQUIREMENT:

BIDDER PRE-QUALIFICATION REQUIREMENTS:

Interested parties to note that Bidder shall be required to fulfill the following bidder pre-qualification requirement / criteria in order to qualify for the subject work. Bidder will be required to submit relevant supporting documents to demonstrate their qualification during the bid submission stage against Tender document / RFQ and bidders not found meeting the pre-qualification requirements given below will be disqualified from the tender.

TECHNICAL CRITERIA:

1. Bidder should have at least 5 years of an experience of servicing of 250MW Unit ESP.
2. The Bidder should have an experience of having successfully completed “Similar type works” during last 5years and should submit at least three numbers of Purchase Orders in past Five years with cumulative order value of minimum 50 Lakhs per year and execution was carried out by bidder itself.

SAFETY REQUIREMENT:

a) Bidder should preferably have ISO 9001 / ISO 14001 / ISO 45001 certification or must give an undertaking to obtain the same within 2 months of qualification for the work.

FINANCIAL REQUIREMENT:

1. The Bidder should have average annual financial turnover not less than INR 1 crores (best three out of the last five financial years audited results).

SUPPORTING DOCUMENTS (to be submitted with Technical Bid):

a) Valid ISO Certificates True Copy

b) PO Copy, Completion Certificate from the concerned client in support of successful execution of jobs /reference projects to be submitted.

c) Experience details of past should be submitted as per the following table format:

1	2	3	4	5	6
Sl. No.	Client details/ Power plant details	Order No. Date & Year	Contract Tenure	Order value	Details of scope of work

5. BID SECURITY / EMD:

Interested parties to note that Bidder will be required to furnish a Bid Security along with their Bid, in the format prescribed in Bid Document **in the form of EMD**, for an amount as defined in the covering page of this notice document. Bids not accompanied by an acceptable Bid Security shall be rejected by the Owner as being non-responsive and returned to the bidder without being opened.

Interested parties to note that Bid Security is not required with the EOI and it is required to be submitted with the Bid only during Bid Submission stage, once RFQ is released to the interested parties that have submitted a valid EOI.

6. BIDDING PROCESS:

Detailed Bid Document (also referred as RFQ) shall be issued through Tata Power e-tender portal (Ariba System) only to the parties that submitted a valid EOI as per terms mentioned in this document.

Bidder to note that commercials for subject tender may be conducted through e-auction. Detailed bidding and auction process shall be detailed in the RFQ / tender document.



THE TATA POWER COMPANY LIMITED

TECHNICAL SPECIFICATION/SCOPE OF WORK

FOR PR

Introduction

The electrostatic precipitator system of Unit-8 at the TROMBAY TPS was engineered, manufactured and supplied by BHARAT HEAVY ELECTRICALS LIMITED, RANIPET. There are five fields in SERIES in the direction of gas flow and two electrical bus sections across gas flow in EACH of the electrostatic precipitator passes. There are two independent passes / streams of the electrostatic precipitator system serving the same boiler unit. The total number of fields in both the streams is twenty (20).

All the fields in the electrostatic precipitator system are fitted with SPIRAL TYPE EMITTERS. The emitting system framework for mounting the SPIRAL EMITTERS is arranged in THREE LEVELS and is provided with rapping mechanisms at TWO INTERMEDIATE LEVELS. The drives of the emitting electrode rapping mechanism for the emitting system framework are mounted on the roof of the electrostatic precipitator and the system comprises of the electric motors, the shaft insulators, the vertical drive shafts, the small & big pin wheel assemblies, the horizontal rapping shafts and the tumbling hammer mechanisms. There are a total of TWENTY (20) rapper drives for the TWENTY emitting system frame works.

The collecting electrode system of each of the electrical bus section is provided with a 'tumbling hammer' rapping mechanism located at the bottom of the collecting electrode system. Each row of the collecting electrode is rapped by its own hammer and the hammers are mounted in an angularly displaced manner. The drive for the collecting electrode rapping mechanism is mounted on the casing wall.

Job Scope

Sr. No.	SAP CODE	Job Description	Quantity	SCOPE
1	4151997	ESP water washing, clinkr rem & int insp	2 Streams	FIRM
2	4039679	REPLC RAPPING MOTOR CPLG W/GEARBOX	5 Nos.	FIRM
3	4123051	ESP Field Alignment	20 no.	FIRM
4	4151998	Replacement of emitting electrode.	50Nos.	FIRM
5	4152001	Repl./Repair of CE & DE anvil/shock pad	300Nos.	FIRM
6	4152002	Replacement/Repair of CE & DE hammer	250 Nos.	FIRM
7	4076820	Rem/Repl Big & Small Pinion Wheel	6 Nos.	FIRM
8	4152003	Repl./Repair of Thrust bearing & Pad	20 Nos.	FIRM
9	4152004	Repl./Repair of CE & DE Plain bearing	200 Nos.	FIRM
10	4091446	ELEC,Remove Replace of shaft Insulator	10 No	Firm
11	4152005	Miscellaneous ESP Repair Job	1 AU	FIRM
12	4189816	Replacement removal of GD rapping shaft with hammer	2 No	Optional
13	4189932	Repl/Removal of ESP collecting electrode	5 No	Optional
14	4039683	REPLC SUPPORT INSULATOR	6 Nos.	FIRM
15	4151999	Repl/Rem of CE rapping shaft with hammer	4 No	Optional
16	4152000	Repl/Rem of DE rapping shaft with hammer	4 No	Optional

Detailed Job Scope:

A. Scope U8 ESP Pass A & B Overhaul.

1. Unit-8 Outage is scheduled for 26 days and will tentatively start from first week of Dec 2025.
2. Opening of manholes and provision of hard barricading after opening the man holes of both the passes.
3. Scaffolding erection/dismantling inside the ESP & hopper (if required) by Vendor.
4. Vendor to deploy two separate teams along with supervisor so as to carry out overhaul of both the passes A & B simultaneously. As per our estimate minimum experienced and competent manpower to be deployed will include one Safety supervisor, two site supervisor, 5 nos. of Gas cutter and welder and 14 technician and 14 helpers. Minimum equipment to be deployed for execution of ESP work that will include 5 welding machine set, 3 gas cutting set.

5. ESP water washing, clinker rem & int insp

Water washing of ESP Pass A & B: -

- a) Scaffolding erection inside the ESP stream
- b) Life line arrangement (metal rope with 8mm thickness) to be provided inside the ESP stream by vendor.
- c) Hopper inspection to be carried out for physical inspection of ash presence.
- d) Clinker/Ash removal from Hopper, GD screen and ESP internals prior to water washing.
- e) Individual collecting, emitting electrode and GD Screen should be cleaned from top to Bottom using fire hydrant.
- f) Water hose pipe & Nozzle for water washing provided by Tata Power.
- g) Vendor shall provide the necessary PPE, like rain coat, rubber shoes, Safety Goggles, ear plug and double lanyard safety belt
- h) After water washing of all the ESP internals, detailed field inspection of all fields to be carried out by vendor and share the findings.
- i) Water washing activity along with internal inspection of both the pass A & B should be completed in 5 days.

6. REPLC RAPPING MOTOR CPLG W/GEARBOX

Collecting and emitting gear box with motor replacement. Inspection of collecting and emitting rapping gearbox and replacement if found damaged. Removal of old damaged collecting and emitting rapping gearbox, Installation of new rapping gear box with motor, its trial after proper alignment.

7. ESP Field Alignment

Field alignment wherever required.

- a) U guides to be installed wherever missing and damaged. These U-guide to be welded along the length of U guide with collecting electrode without causing a burn-through on the collecting electrode profile.
- b) Straightening of collecting plate over its entire length by heating of electrode plate by torch, hammering with wooden hammer /mallet, repair/welding of punctured or damaged collecting plate as per instructed by Engineer in charge.
- c) Any dislocated collecting plates from top hook or bottom shock bar shall have to be re-located in its original position and the same shall have to be locked by means of bolting & tack welding.
- d) Tack welding condition checking of all the Huck Bolts (collecting electrode), shock pad & collecting and emitting electrode hammer bolts.
- e) Shifting of emitting frame if required to maintain the gap between the emitting and collecting electrode.

8. Replacement of emitting electrode.

Inspection of emitting electrode (spiral type) and its replacement. Removal of damaged emitting electrode and installation of new emitting electrode as per the site Engineer instruction.

9. Repl/Rem of CE rapping shaft with hammer

Collecting electrode rapping shaft and emitting electrode rapping shaft replacement with hammers & its alignment. Removal of rapping motor gearbox, removal of plain bearing, set ring, rapping hammers and shock pad. Installation of new rapping shaft, sleeve fixing, water level checking, plain bearing & set ring fixing and tack welding, alignment of shaft, rapping hammer fixing and tack welding, shock pad replacement (if found damaged) & its alignment with hammer, Rapping motor gear box reinstallation and alignment.

10. Repl/Rem of DE rapping shaft with hammer

Emitting electrode rapping shaft replacement with hammers & its alignment. Removal of rapping motor gearbox, removal of plain bearing, set ring, rapping hammers and shock pad. Installation of new rapping shaft, sleeve fixing, water level checking, plain bearing & set ring fixing and tack welding, alignment of shaft, rapping hammer fixing and tack welding, shock pad replacement (if found damaged) & its alignment with hammer, Rapping motor gear box reinstallation and alignment.

11. Repl./Repair of CE & DE anvil/shock pad

Collecting and emitting electrode anvil/shock pad inspection and replacement if found damaged. Removal of damaged collecting and emitting anvil/shock pad by opening or cutting the bolts. New collecting and emitting anvil/shock pad installation its alignment with hammer and tack welding of bolts after tightening.

12. Replacement/Repair of CE & DE hammer

Collecting, Emitting and GD screen rapping system maintenance and hammer replacement (if found damaged). Checking of all the components of collecting, emitting and GD screen Rapping hammer. The worn out and damaged/missing component are to be removed by gas cutting. Tack welding on fasteners to be carried out after refitting/renewal of the component & its alignment.

13. Rem/Repl Big & Small Pinion Wheel

Small and big pin wheel inspection and replacement. Removal of damaged big and small pin wheel (if found damaged) by opening /cutting of bolts, new big and small pin wheel installation, its alignment and tack welding of bolts after tightening.

14. Repl./Repair of Thrust bearing & Pad

Inspection of Emitting system thrust bearing and thrust pad and its repair/replacement if found damaged/missing. Removal of damaged thrust bearing and thrust pad of emitting rapping system (if found damaged) by opening /cutting of bolts, new thrust bearing and thrust pad installation and tack welding of bolts after tightening.

15. Repl./Repair of CE & DE Plain bearing

Inspection of Plain bearing of collecting & emitting rapping system and its repair/replacement if found damaged/missing. Dismantling of worn out plain bearing of collecting & emitting rapping system (if found damaged) by removing the fasteners. Replacement of rejected worn out bearing, its levelling and tack welding of the fasteners after tightening.

16. ELEC,Remove Replace of shaft Insulator

Cleaning & inspection of all support insulator and its replacement if found damaged. Gasket of support insulator to be replaced if found damaged.

17. REPLC SUPPORT INSULATOR

Cleaning & inspection of all Shaft insulator and its replacement if found damaged. Gasket of shaft insulator (inspection window) to be replaced if found damaged.

18. Miscellaneous ESP Repair Job

Miscellaneous repair Job includes minor modification in ESP internals which requires welding, cutting, grinding, fabrication of material as instructed by site Engineer.

- a) Gasket replacement for manhole doors / covers. After completion of work inside ESP, the manhole doors are to be closed by providing gasket/asbestos rope. Old gasket removal, manhole door cleaning, fixing of new gasket/asbestos rope of 12mm/16mm with adhesive and tightness checking for any air ingress from the door.
- b) Inspection & repair of GD screen plate both front & rear. The damaged plate to be repaired by heating/welding/drilling and tack welding with the frame.
- c) Hopper gas deflector/baffle plate repairing. Inspection of hopper gas deflector plate position and condition, repair of deflector plate by cutting/heating/welding, lifting of its chain shackles by welding as per the required gaps with hopper side plates.
- d) Hopper cleaning after finishing the job. Cleaning and removal of ash/clinker or any other foreign material. Scaffolding erection inside the hopper and removal of ash/clinker.
- e) Guide angle repair/replacement of rapping end side and non-rapping end side by removal/cutting of damaged angle. If required, straightening the same by heating, hammering and re-erection of repaired guide angle in position shall have to carry out by welding as instructed by site Engineer.
- f) Collecting and emitting rapping system strengthening of both the passes A & B. Alignment of shock pad & hammer by heating/drilling/welding. Removal & replacement of damaged /worn out fasteners of shock pad & hammer, then tack welding on fasteners to be carried out properly as instructed by site Engineer.
- g) Old gasket removal from both pass A & B manholes. Cleaning of manhole doors, minor repair (welding/drilling) if required, adhesive application and fixing of new gasket & tightness checking for any leakage.
- h) Replacement / repair of manhole doors.
- i) Inspection and recording of all ESP heaters and replacement of damaged heaters.
- j) Cleaning of rectifier cubical and replacement of insulator if found damaged.



Other Terms & Conditions:

1. Vender shall depute Safety Supervisor having experience in working in confined space and it shall have knowledge of safety standard.
 - A. Daily tool box to be given by safety supervisor to their workers, maintaining the separate attendance register for working in confined space and take the sign (along with the time) of each worker before going inside the confined space i.e. inside the ESP.
 - B. It is the responsibility of safety supervisor to provide the required PPE's like Dust mask, Hand gloves, Safety goggles, Double Lanyard Safety Belt, Life Line Arrangement, rain coat and rubber shoes (during the water washing) etc. to their workers prior going to the job.
2. Vendor shall mobilize all manpower at site two days prior to start of the outage.
3. Gate Pass Formality should be completed 1 month prior to the start of outage.
4. L1 safety training must be completed for all workers, before starting the ESP outage.
5. Dedicated workers provided by vendor should not combined other working area.
6. Vendor shall deploy adequate number of experienced and qualified manpower's along with supervisors exclusively for the work as per the instructions of M/s TPC engineer.
7. Vendor shall maintain the day to day progress and quality records of the work. Read the contract safety management guidelines and follow the guidelines. Any safety violation will lead to penalty as well as cancellation of contract.
8. All the required tools and tackles should reach the site four days prior to start of the outage and stored near the working area. Tata Power Engineer will carry out Safety inspection of electrical equipment like welding machine, cutting set, grinding machine and supply extension board and it's ELCB.
9. Vendor is not allowed to reduce the man power till the completion of ESP Overhauling activities and clearance from the Tata Power Engineer.
10. Vendor shall provide 24 volt lighting transformers along with hand lamps/bulbs and cables of sufficient length & extension boards, torches (Eveready LED torch 4 cell) as per site requirement for proper illumination at site.
11. Testing of contractor's electrical equipment's like ELCB testing of extension boards, welding machine and drill machine will be done by M/s Tata Power Engineer.

- 
12. Form-11 of all lifting tools and tackles to be maintained at site. All lifting tools and tackles should be of IS3832 standard. All chain blocks to be used at site should have locking latch.
 13. All PPE's required for safe working to be arranged by contractor. Specifications of PPE's to be taken from Tata Power Safety dept. in writing.
 14. Shifting of spares, special tools materials and equipment from stores/ workshop to and from site. Any failure in return or damage to company tools shall be back charged from the Vendor.
 15. Vendor must kept one spare filled cylinder of oxygen and DA at site.
 16. Vendor to carry out housekeeping at the end of every shift prior to start of next shift to remove scrap, unwanted material, debris, structural steel, ash, insulation, etc. Failure to do so will attract penalty as per standard terms mentioned in Contractor Safety code of conduct.
 17. Vendor is recommended to have site visit & get briefed about the job scope prior to quoting.

B. Tata Power Scope:

1. Transport vehicles for shifting the ESP spare will be provided by TATA Power.
2. Tata Power will ensure timely work permits, material issue and inspections to ensure timely completion of job.
3. Spare material will be provided by TATA Power.
 - ESP internal spares like Support insulator, shaft insulator, Hammer, Shock pad, Plain bearing, set ring, grip coupling, emitting electrode etc.
 - 440/230V supply will be provided at nearest designated points.
 - Service water wherever required as per site requirements.

C. Deliverables:

1. Vendor has to complete overhaul of ESP with activities mentioned in the job scope within the schedule outage period of 26 days.
2. Vendor to Ensure Safety while working inside the ESP like proper use of PPE's, authorized and tested tools & tackles, maintaining confined space register etc.
3. One spare filled oxygen & DA cylinder should always be present at site.
4. Manpower and material should be mobilized 2 days prior to start of outage.

5. Adequate resources like manpower, welding machine, power tools, 24V lamps, tools & tackles etc. should be available for execution of Job.
6. Working area housekeeping to be maintained round the clock (before starting, while working and after finishing the job on daily basis).
7. Safety supervisor should always be present at site to maintain the confined space entry register and to ensure the safety of each person and equipment.
8. Site/Main supervisor should always be present at site to guide and handle the manpower for execution of planned work.

D. Penalty Clause: -

1. Vendor is expected to complete the maintenance and replacement job scope of ESP.
2. Overhaul within outage schedule, failing to which will attract the penalty of 5% of PO Value.
3. Safety violation will attract penalty of 2% of PO Value per safety violation for each instance.
4. Unavailability of Spare filled cylinder of Oxygen and DA will attract penalty of 2% of PO Value Per day.
5. Delay in mobilization of man power (with Valid Gate Pass) and material will attract penalty of 2% of PO Value Per day
6. Poor housekeeping will attract penalty of 5% of PO Value
7. Rs.10000/- per day penalty for Non-availability of Supervisor in site during the job execution.
8. Rs.15000/- per day penalty for Non-availability of Safety Supervisor in site during the job execution.

Note:

- All the welding electrodes of all type, tools & tackles with form-11, grinding/buffing wheel, cutting wheel, welding machine, consumables, tarpaulins, lighting arrangement (including 24V DC hand lamp) and all other special machines for execution of job is in Vendor scope and Tata Power is not responsible any of the above mentioned item.
- Welding machine or mobile equipment will be allowed after getting safety sticker from authorized Electrical engineer prior to the job. Any machine without the safety sticker are not allowed to use and kept at working site.

- 
- Name of the person along with their designation and qualification should be given by vendor at least one week before the start of outage.
 - Simultaneous job will be carried out in both the passes (Pass-A & B).
 - Minimum 5 Nos. of welder and gas cutter should always be present at site.
 - 8mm of metal rope should be used for providing life line arrangement in 20 nos. of field.
 - Minimum 14 group should always be present at site (one group contain one fitter and one helper).
 - Safety tools & tackles and PPE should always be present at site (in advance) and manpower should not be mobilized by vendor to bring these things from local stores.