GUJARAT INDUSTRIES POWER COMPANY LIMITED
(Surat Lignite Power Plant)

AT & POST NANI NAROLI, TALUKA: MANGROL, DIST: SURAT, PIN 394110 (GUJARAT)
Phone Nos.: EPABX (02629) 261063 to 261072, fax Nos.: (02629) 261112, 261080

TENDER DOCUMENTS FOR;

Surat Lignite Power Plant - 4X125 MW, Unit # 1 to 4:

1) **Supply and Execution of Replacement of internals of twelve ESP fields of Unit-1 to 4.**
2) **Supply and Execution of 4 Dummy ESP Field Revival of Unit-1 & 2.**
3) **Overhauling /servicing of all remaining ESP Fields of Unit 1 to 4 along with**
4) **Incorporation of 8 Nos. 3-phase (TR) ESP transformer up gradation of one field in each pass for Unit 1 to 4 &**
5) **Retrofitting / up gradation of ESP controller & panel of 36 Field for Phase-1 & 2 (16+20) during annual overhauling/single pass outage of Year-2022-24.**

Bid No.: TENDER NO. SLPP/MECH/BLR/ESP/REPL.& REPAIR /2022-24
(n)-Procure Tender ID: 489088

INSTRUCTIONS TO BIDDERS & CONDITIONS OF CONTRACT

INDEX

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.

NOTICE INVITING TENDER (NIT)
TENDER NO: *SLPP/MECH/BLR/ESP/REPL. & REPAIR /2022-24*

Name of work	**Surat Lignite Power Plant - 4X125 MW, Unit # 1 to 4:** 1) Supply and Execution of Replacement of internals of twelve ESP fields of Unit-1 to 4. 2) Supply and Execution of 4 Dummy ESP Field Revival of Unit-1 & 2. 3) Overhauling /servicing of all remaining ESP Fields of Unit 1 to 4 along with 4) Incorporation of 8 Nos. 3-phase (TR) ESP transformer up gradation of one field in each pass for Unit 1 to 4 & 5) Retrofitting / up gradation of ESP controller & panel of 36 Field for Phase-1 & 2 (16+20) during annual overhauling/single pass outage of Year-2022-24.
Place of work	Surat Lignite Power Plant, Village: Nani Naroli, Taluka: Mangrol, Dist.: Surat - 394110 (Gujarat).
Quantity	The successful Bidder will be awarded this contract involving total quantities of various items as mentioned against item descriptions in BOQs.
Contract period	**24 Month**
EMD	Rs. 08,00,000 /- (Rupees Eight Lakh only) by Demand Draft payable at Mosali-Surat/Nani Naroli/Surat or Bank Guarantee in favor of GIPCL from approved Banks mentioned in this tender in subsequent clauses.
Tender fee	Rs. 5,950/- (Rupees Five Thousand Nine Hundred Fifty only) by Demand Draft in favor of GIPCL payable at SBI- Nani Naroli.
Availability of online e-Tender document	On website: http://www.gipcl.com & https://gipcl.nprocure.com from 24.01.2022
Last date of online submission of Bid	**14.02.2022** up to **17:30 HRS** on website: https://gipcl.nprocure.com
Submission of EMD, Tender fee and other supporting documents for technical Bid in physical form.	On or before Last date of online submission of bid before Office Hrs (i.e.17:30 HRS) at office of Surat Lignite Power Plant, Nani Naroli, Dist. Surat.
E-Reverse Auction	**Will be informed by GIPCL to all qualified Bidders for reverse auction.**

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 or split the work among the Bidders 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 conditional tender will not be entertained and shall be liable for rejection.

5. The Bidders are required to submit their Bids online only through the website www.nprocure.com

6. Bidders are advised to upload the tender well in advance to avoid delay in submission of tenders due to n-procure site related issues. In case of any issues /difficulties cropping up during on line uploading / submission of documents, bidders are requested to inform these well in advance (at least two days before closing of tender) to (n) Code Solutions as mentioned in Section-B of tender and as well as to GIPCL mail to mkvelu@gipcl.com.

7. The EMD, Tender fee & other supporting documents are to be submitted in physical form only at the following address:-

   General Manager (SLPP)
   Gujarat Industries Power Company Limited
   Surat Lignite Power Plant
   At Village: Nani Naroli,
   Taluka: Mangrol,
   Dist.: Surat - 394110, Gujarat.
   Phone: (02629) 261063-72.
   E-Mail: mkvelu@gipcl.com

SECTION-A
INSTRUCTIONS TO BIDDERS

1. PLANT SYNOPSIS

Gujarat Industries Power Company Limited (GIPCL) (henceforth be named Company/GIPCL), is a Premier Power Utility in the State of Gujarat with an installed capacity of 1084.4 MW comprising of various conventional and renewable projects.

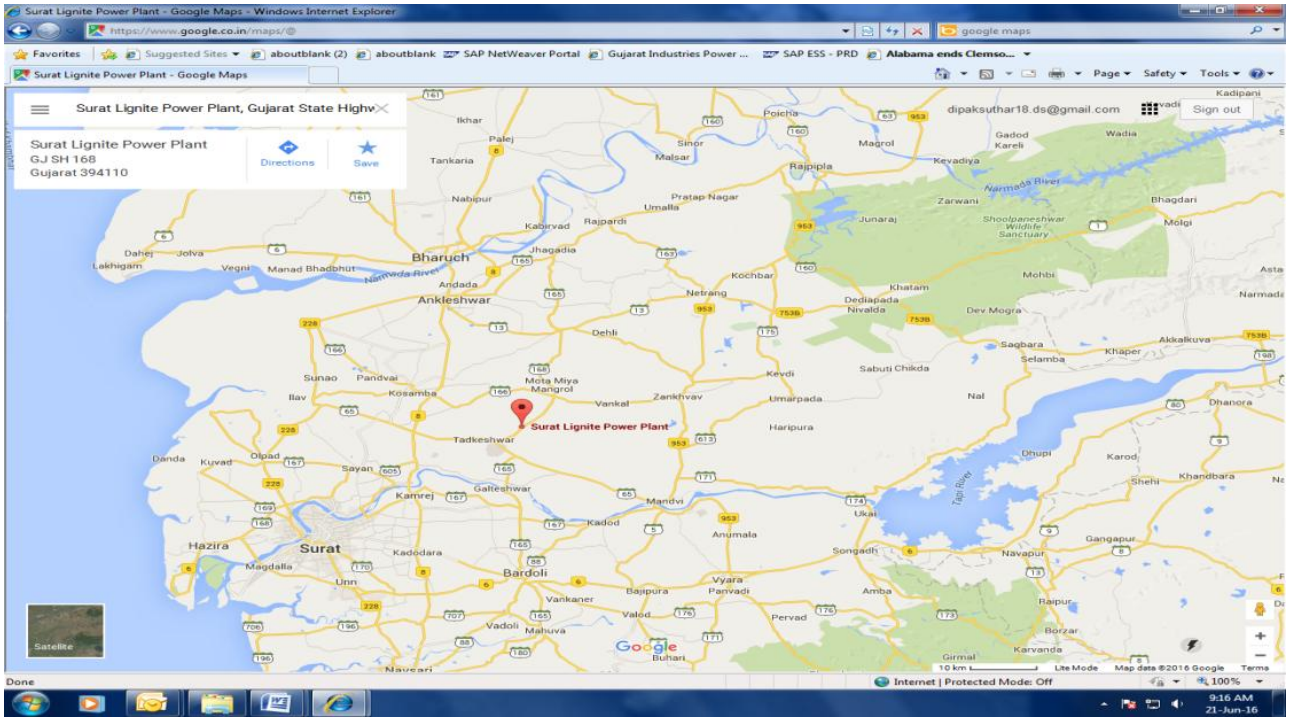
GIPCL commissioned its first power project ; a 145 MW gas based combined cycle power plant in 1992 at Vadodara. It expanded its capacity 165 MW Naptha and gas based Combined Cycle Power Plant at Vadodara in 1997. GIPCL has commissioned 1MWp Distributed Solar Power Projects at two locations in Gujarat viz. at Village: Amrol, Dist.: Anand and at Village: Vastan, Taluka Mangrol, Dist.: Surat.

Surat Lignite Power Plant (SLPP) with four units of 125 MW capacity each is located at Village: Nani Naroli, Taluka: Mangrol, District: Surat in Gujarat. GIPCL has also operating its own captive Lignite and Lime Stone Mines close to the Power Plant. The Power Plant is based on Circulating Fluidized Bed Combustion (CFBC) technology for the Boilers, where Lignite is burnt along with Lime Stone in the Combustor of the Boiler.
It commissioned 5 MW solar power station at SLPP in 2012. Also, GIPCL has commissioned 1MWp Distributed Solar Power Projects at two locations in Gujarat viz. at Village: Amrol, Dist.: Anand and at Village: Vastan, Taluka Mangrol, Dist.: Surat.

GIPCL has successfully commissioned a 2 x 40 MW Solar Project in 2017 as well as a 75 MW Solar Power Project in 2019 at Gujarat Solar Park, Village Charanka, Dist.: Patan. GIPCL has also successfully commissioned 112.4 MW wind farms at different location of Gujarat.

GIPCL is presently executing a 100 MW Solar PV project at the Raghanesda Solar Park, Gujarat.

Surat Lignite Power Plant (SLPP) is accessible by road from Kim and Kosamba, which are on Mumbai-Ahmadabad highway. From Kosamba, SLPP is around 32 KM, out of which 27 KM is part of the National & State Highway and balance 5 KM is District Road. From Kim, SLPP is around 18 KM, out of which 13 KM is the State Highway and balance 5 KM is District Road. The nearest Broad Gauge Railway Line is at Kim, which is around 21 KM from the SLPP. Surat is approximately 50 KM from the SLPP. Location Map for SLPP is as under.



The Company intends to award work Contract for Surat Lignite Power Plant - 4X125 MW, Unit # 1 to 4:

1) Supply and Execution of Replacement of internals of twelve ESP fields of Unit-1 to 4.
2) Supply and Execution of 4 Dummy ESP Field Revival of Unit-1 & 2.
3) Overhauling /servicing of all remaining ESP Fields of Unit 1 to 4 along with
4) Incorporation of 8 Nos. 3-phase (TR) ESP transformer up gradation of one field in each pass for Unit 1 to 4 &
5) Retrofitting / up gradation of ESP controller & panel of 36 Field for Phase-1 & 2 (16+20)

During annual overhauling/single pass outage of Year-2022-24

2. SCOPE OF WORK : Detail scope of work given in Section D

SPECIFICATION:

ESP Description	Unit 1 & 2-PH-I, Make: BHEL	Unit 3 & 4-PH-II, Make: BHEL
Type of ESP	2xFAA-7x45(45) -126-135-2	2xFAA-7x45(45) -132-135-2
No of passes	2	2
Number of fields per pass	07 including 01 dummy field (Last)	08 including 01 dummy field (First)
Pitch between Two Collecting Electrode	300 mm	400 mm

No of rows for CE	43 per field each row 6 plates.	34 per field each row 6 plates
No of rows for EE	42 rows per field, each row 54 (18 x 3) electrodes.	33 rows per field, each row 54 (18 x 3) electrodes.
Total No. Of fields	12 in each unit,24 in Phase-1 excluding dummy Fields	14 in each unit,28 in Phase-2 excluding dummy Fields
Dummy Field Status	Last Dummy Fields are to be revived in Present Tender. Total Field to be revived: 4 Nos. with 400 mm pitch design.	First Dummy Fields were revived. Total Revived Field : 4 Nos.
Total No. of Working Field at Present	12 in each unit,24 in Phase-1 excluding dummy Fields	16 in each unit, 32 in Phase-1 including dummy Fields

Scope broadly covers in four parts Detail Scope of work given in Section-D:

Clause No.	**Work Description**	**UOM**
Clause A1	Supply of internals for Replacement of all working internals-Phase-1	Lot for 9 Field
Clause A2	Supply of internals for Replacement of all working internals- Phase-2	Lot for 3 Field
Clause A3	Supply of all required spares for revival of dummy field including TR set and Panel with all mechanical/ electrical/electronic spares and their accessories in U1 & U2 (2 Field in each unit)	4Lot for 4 Field 1lot for 1 Field
Clause A4	Supply Additional Spare for Phase#1 & Phase # 2	Lot
Clause B1	Execution of erection and commissioning for Field Replacement of all working internals- Phase # 1	Per field
Clause B2	Execution of erection and commissioning for Field Replacement of all working internals- Phase # 2	Per field
Clause B3	Mobilization for Field Replacement	Per Mobilization Per Unit
Clause B4	Execution of installation of all required spares for revival of dummy field including TR set and Panel with all mechanical/ electrical/electronic spares and their accessories in U4 along with commissioning (Execution Including Mobilization of separate & additional resources)	Per Field

Clause B5	Execution for Inner Roof Replacement Work	Per Field
Clause C1	Prescribed minimum maintenance activity-Phase-1 during shutdown	Per unit
Clause C2	Prescribed minimum maintenance activity-Phase-2 during shutdown	Per unit
Clause C3	Mobilization Charges for Prescribed minimum maintenance activity & Clause wise Overhauling activity covered in Clause C4 / C5	Per Mobilization Per Unit
Clause C4	Overhauling/Repair / Replacement/ servicing-service clause wise for both phase-1 & 2	Service clause wise (25 Clauses)
Clause C5	Repair / Replacement / Overhauling for GD screen / Ridge Plate / Dust Guard including their supply for both phase-1 & 2	Service clause wise (10 Clauses)
Clause D1.1	Supply of 4 Nos. 3-Phase Transformer for each Phase;Phase-1	Clause wise
Clause D1.2	Erection & Commissioning-of 4 Nos. 3-Phase Transformer for each Phase; Phase-1	Per Transformer
Clause D2.1	Supply of 4 Nos. 3-Phase Transformers for each Phase; Phase-2.	Clause wise
Clause D2.2	Erection & Commissioning-of 4 Nos. 3-Phase Transformer for each Phase; Phase-2.	Per Transformer
Clause E1.1	Supply of Controller/Panel's Retrofitting/Up gradation; 16 Nos. For Phase-1.	Clause wise
Clause E1.2	Erection & Commissioning of Controller/Panel's Retrofitting/Up gradation; 16 Nos. For Phase-1.	Per Controller
Clause E2.1	Supply of Controller/Panel's Retrofitting/Up gradation; 20 Nos. For Phase-2.	Clause wise
Clause E2.2	Erection & Commissioning of Controller/Panel's Retrofitting/Up gradation 20 For Phase-2.	Per Controller

** In case partial field replacement instructed/required than billing will be governed by "Partial Field replacement billing schedule-Given in Annexure-D"

I. 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.

II. Quantum of job mentioned against all items in the price bid are indicative only & may vary as per site requirement & not to be construed as maximum or guaranteed quantity. The quantities shown in the price bid are approximate quantities for the contract period and they may vary as per job requirements.

III. All the miscellaneous activities pertaining to specific work to be executed for satisfactory performance is in the scope of contractor in his quoted rates.

IV. Servicing/ Repairing of above ESP and its' auxiliaries - equipments shall be done as per best practices & checklist provided by GIPCL if required.

V. The scope also includes all works necessary, which are not specifically mentioned here but required, for effective execution of entire work in all respect within time bound period and are deemed to be included in the scope of the CONTRACTOR. All works shall conform to the specifications, safety norms, legal & statutory requirements.

WORK EXECUTION:

Permit to work system (including the LOTO system, as applicable) in vogue shall be followed strictly and accordingly, workers of contractor shall start any work only after all the necessary isolations, issuance of PTW and clearance / instructions including daily safety briefing (Tool Box Talk) to the contractual workers.

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 and conditions contained in the tender documents.

3.2 The bids shall be filled in by the tendered clearly, neatly and accurately. Any alteration, erasures or over-writing would be liable to make the tender invalid unless the same is neatly carried out and attested over the full signature of tendered. The decision of the Company to interpret the information and rates filled in by the tendered 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 and health aspects and norms to be observed, etc. while submitting their bids so that no ambiguity arises in these respects subsequent to submission of the Bids.

3.4 Before quoting the rates, the Bidder should go through the specifications, scope of work etc. and get himself fully conversant with them. The bid should include cost of 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 both Phase-I (Unit-1 & Unit-2) and Phase-II (Unit-3 & Unit-4) and for all sections. Bids received for only one Phase/section

shall not be considered. However, party shall have to quote the rates on total estimated value section wise.

3.6 Bidder has to quote for both Phase I & Phase II / All Three sections (i.e Q1.1 / Q1.2 & Q2 and Q4). Bids received for only one phase/section (or partial quote) shall not be considered.

3.7 Bidder has to submit all the information and details required in the 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.

3.8 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.

3.9 The tender documents shall not be transferable.

3.10 The Bidders are expected to examine all instructions, forms, terms and 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 during tendering process before tender submission.

3.11 Conditional offers shall not be considered and liable to be rejected.

3.12 The Company reserves the right to extend the deadlines for submission of the bids by giving amendments.

3.13 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.

3.14 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.

3.15 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.

3.16 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.

3.17 Timely and satisfactory completion of the work and strict adherence to the allotted time frames for jobs shall be the essence of the contract.

3.18 The Company reserves the right to qualify/disqualify any applicant without assigning any reason.

3.19 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.

4. PLANT VISIT

It is perquisite and necessary for all interested bidders to visit the site/plant after downloading the tender copy to understand the actual working conditions, compliance related to labour, safety etc. Before submitting their offer. Failing which, any consequential liabilities arising will be to bidder's account. The bidders shall examine the site of works and its surroundings at his own responsibility. The bidders shall collect information 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 bidder is deemed to have examined and understood the tender document, obtained his own information in all matters whatsoever that might affect the carrying out the works expressly 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.

The submission of tender by a contractor implies that he has visited the site and 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, General & Special Terms and Condition. 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.

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, temperature of fresh drained hot bed material and associated risks, right of way, high flood level in River, flow of water during monsoon/dry season in the

River/Nallah, 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 Engineer.

Note: Interested vendor shall visit the site invariably to understand the scope in detail and the clarify the matter if required prior submitting the bid.

5. ELIGIBILITY CRITERIA :

The following criteria will be adopted for qualifying the Bidders for consideration of the Bid for the further proceeding.

1. Bidder has to submit all the credentials and minimum three number performances certificates/supporting documents from other customers.
2. In case of those Bidders, who are having only manufacturing back ground or execution of field erection back ground of ESP at least for last three years, they should have joint venture/ consortium arrangement with executing party in case of manufacturer & visa versa. (Proof to be attached).
3. Leader of consortium shall submit agreement on 100 Rs. stamp paper for joint venture / consortium agreement for participation in contract.
4. Bidder shall have executed at least

→One order each of Single Combined order value to the tune of Rs. 1132 Lakh

OR

→Two orders each of Single Combined order value to the tune of Rs. 755 Lakh

OR

→Three orders each of Single Combined order value to the tune of Rs. 566 Lakh

During last five years ending last day of the month previous to the one in which tender is invited, satisfactory progress of ongoing works etc. along with certified copies of documentary evidence preferably photo copies of work experience from the clients.

Similar nature of work (like Supply/Execution of mechanical/electrical spare/works including Execution of ESP Field Replacement, supply for ESP internals (like Collecting Electrodes, Emitting Electrodes, Transformer/Panel/controller etc…) & Overhauling in power station and shall enclose proof of the same.

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

5. Bidder should have average annual turnover of Rs. 566 Lakh for last three years (2020-21,2019-20,2018-19) individually as a manufacture/Execution of field erection & commissioning or joint consortium.
6. The net worth of the bidder as on 31.03.2021 should be positive as evidenced from audited accounts.
7. Sub letting of execution work shall be allowed subject to approval of GIPCL at sole discretion of GIPCL. In case of subletting the contract, contractor should furnish minimum three resourceful vendor list for approval.
8. Bidder should give guarantee for their material quality and application quality jointly in line with tender document conditions.
9. Bidder shall furnish annual audited financial statement duly certified by Chartered Accountant for the last three financial years to demonstrate the financial healthiness of the company. The balance Sheet AND Profit and Loss Account must be in the name of the company. Any type of MOU for this purpose will not be entertained.

   Note: In case, the annual turnover is less than the statutory guideline which does not require audit, the bidder shall submit the turnover certificate from Chartered Accountant
10. Bidder shall depute one expert qualified and experienced site in charge to co-ordinate the work and three qualified supervisory engineers for site work. Party to submit all engineers Bio-Data for our approval and GIPCL will allow after verification of their experience and skill in ESP work.
11. Bidder should have separate Employees Provident Fund code number towards registration of firm with RPF commissioner.
12. Bidder shall enclose P. F. code allotment letter along with labour licenses and W.C. Policy copies of previous orders.
13. The bidder has to submit PAN Card copy of the firm/Company and Bidder has to submit copy of GST registration number.
14. The Bidders are also required to prove their prudent behaviour and fulfilment of all the legal and contractual commitments, without any past or ongoing dispute / litigation / legal recourse with their present Principal Company / Owners. Bidder

should also submit undertaking as attached in Annexure "Declaration for Contractual Litigations"

15. 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" in Annexure / Form attached
16. Bidder shall have to submit the "Declaration-cum-Undertaking for Compliance of Safety Laws and Regulations" as amended in Annexure / Form attached.
17. Vendor should submit specification & performance certificate for identical application (of ESP) from any customer as a part of technical bid for both 3 phase-transformers as well as controller for the offered make/model.
18. Site Visit is mandatory prior to submission of bid to understand the scope of work, working conditions, site conditions, equipments, tools & tackles, labor deployment, associated risk, surrounding etc.
19. Tender fee: The tender fee (5,900 Rs/-) shall be accompanied in form of Demand Draft/RTGS.
20. EMD: The EMD (8,00,000 Rs./-) shall be accompanied in the form of DD/RTGS or Bank Guarantee given by Bank.

1. NOTE: - In the event bidder fails to submit work completion/work execution certificate as a part of pre qualification criteria (as mentioned above in point no 01), in that case GIPCL shall verify necessary credential for accepting/rejecting bidder and shall review for further process.

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.

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

Attested copies of relevant documents duly signed & seal on each & every page shall be submitted. 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 Bidder 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

The Bidder shall submit all the evidences, documents, attested copies of work orders & work completion certificates etc… as a proof with EMD & Tender Fee and also provide the requisite details online for meeting the prequalification requirements. GIPCL will verify the experience, performance, capability & 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 Bidder. GIPCL reserves the right to accept/split/cancel/reject any/all Bids without assigning any reason thereof. The tenders of qualified Bidder/Bidders shall only be considered for further evaluation. The Bidder shall enclose copy of all the documents, work orders and any other certificates to satisfy his eligibility criteria along with Annexure-I duly filled in.

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) and TENDER FEE

7.1 An EMD of Rs. 8,00,000/- (Rupees Eight Lakhs only) and Non refundable Tender fee Rs. 5,900/- (Rupees Five Thousand nine hundred only) shall accompany with Bid. Tender fee shall be submitted through RTGS / in the form of a crossed bank Demand Draft in favor of Gujarat Industries Power Company Limited only.

7.2 The EMD shall be submitted in the form of DD/irrevocable Bank Guarantee in favor of Gujarat Industries Power Company Limited from any Schedule Public Sector Bank or Schedule Private Sector Bank as per Performa of BG enclosed with this e-tender.

Alternatively, The EMD & Tender Fee may also be submitted through RTGS/online mode of payment by the bidders as per the details given below:-

- BANK NAME**:** State Bank of India
- BRANCH: Nani-Naroli , Taluka Mangrol, Dist. Surat. Pin 394 110
- IFSC CODE**:** SBIN0013423
- BENEFICIARY NAME : Gujarat Industries Power Company Limited
- **A/c No. :** 33514692834,
- **MICR code:** 394002513

7.3 In case EMD is paid in the form of BG, the same shall be valid for a period of 180 days after the due date for submission of the bid.

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

7.5 The earnest money deposit will be refunded to the unsuccessful BIDDER as soon as the tender is finalized and after award of LOI/Work Order.

7.6 Any bid not accompanied with EMD and Tender fee will be rejected. Tender fees and EMD should be submitted to GIPCL.

7.7 No interest shall be payable on EMD.

7.8 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.

7.9 **SCHEDULE OF EMD & TENDER FEES**

EMD &Tender fee and other documents dully signed to be submitted in physical form on or before due date of closing of the tender	**Address for Submission:** **GM - SLPP** **GUJARAT INDUSTRIES POWER CO. LTD.,** **(Surat Lignite Power Plant)** **Village – Nani Naroli, Taluka – Mangrol** **District – Surat 394 110, Gujarat** **Phone : 02629-261063 (10 lines)** **Fax : (02629) 261073 / 261074**

8. SUBMISSION OF BIDS

A. MODE OF SUBMISSION

The bids shall be submitted online at the n-procure (https://gipcl.nprocure.com) website within the dates specified in the NIT along with the details of tender fees, EMD in two parts as under:

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

(b) 1. Price Bid .

2. e-Reverse Auction

Note: Tender fee and EMD along with all the evidences, documents, attested copies of work orders & work completion certificates etc… as a

proof and also provide the requisite details online for meeting the prequalification requirements 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 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.
2. Schedule of deviation (Annexure-J) Technical as well as commercial, if any.
3. Eligibility Criteria (Annexure-I), To be fill and forward as a part of techno commercial bid along with all required document.
4. Qualification & experience of Supervisors/Engineers.
5. Annexure-Q, Duly filled and stamped undertaking for following:
    a) Declaration Cum Undertaking for Safety Laws and Regulations Compliance
    b) Declaration for Contractual Disputes/ Litigations

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

1. The tender documents dully signed in all pages without price bid along with techno-commercial (Annexure-J) deviations, if any.
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. Vendor should submit performance certificate for similar application (of ESP) from any customer as a part of technical bid for both 3 phase-transformer as well as controller.
7. 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.
8. P.F Number and Allotment Letter.
9. PAN Number.
10. GSTIN registration number/certificate copy.
11. User ID for e-reverse Auction
12. Fill all required detail in annexure-I,J,N,P,K,S (whichever is applicable) with all required documents
13. Annexure-Q, Duly filled and stamped undertaking for following:

→Declaration Cum Undertaking for Safety Laws and Regulations Compliance
→Declaration for Contractual Disputes/ Litigations

To participate in e-Reverse Auction, Bidders have to create e-Auction USER ID on www.e-auction.nprocure.com after selecting GIPCL and it is mandatory to submit the same along with physical Techno-commercial Bid; so that the Bidder shall be allowed to participate in the e-Reverse Auction.

(b)

1. Price Bid:

1. **Price Bid shall be submitted only in soft form through https://gipcl.nprocure.com**
2. **Note: Estimate includes cost of all manpower (including minimum wage rate as well as specific additional adhoc allowance), materials, supervision, equipments, vehicles, consumables, tools & tackles, transportation, Safety, legal & statutory compliance, mobilization, Contingency expenditure all taxes & duties (except GST) etc... Bidder shall quote applicable GST separately in online price bid.**
3. GST shall be paid extra at actual as per prevailing rates as declared by Central Government on submission of documentary evidence.
4. **Bidder shall have to quote**

For Supply: Mechanical Portion (Items wise Quote)

(A1) The unit rates per UOM for all 15 items/package/set separately.
(B1) Applicable GST all 15 items/package separately

in online price bid.

For Supply: Electrical Portion (Items wise Quote)

(A2) The unit rates per UOM for all 13 items/package/set separately.
(B2) Applicable GST all 13 items/package/set separately

in online price bid.

For Execution: (To be Quote on "sum of services/execution clause" whose SoR rate per UOM displayed)

(A3) the rates in the form of %age for whole execution section separately. i.e. "At Estimated Value OR %age below the estimated

value OR %age above the estimated value in online Price Bid only." Bidder shall also quote

(B3) applicable GST all whole execution sections separately

in online price bid.

5. Bidder shall have to quote the rates in the form of absolute rate or %age as described above.
6. Online quoted total amount by bidder shall include applicable GST. Total amount will be derived by considering bidder's online quoted % rate/absolute unit rate and quoted GST as per prevailing rates as declared by Central/State Government. Any statutory changes in taxes & duties will be to GIPCL's account. In case of any reduction and/or removal of taxes, the same shall be passed on to GIPCL
7. The quantities shown in the SoR (Section-E) are approximate for the contract period as per clause No. 24 section A
8. The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents
9. Price & rates quoted above shall include cost of all consumables (except free issue materials by GIPCL) labor, supervision, tools and tackles, transport etc. and such other cost are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work.
10. The Goods & service tax shall be paid extra at actual, if applicable. Rate of GST tax to be clearly mentioned. Any changes in rate of the statutory levy or imposition of new levy shall be paid extra. The bidder shall clearly mention whether they attract any GST or not in techno-commercial bid itself.
11. The quantities shown in the price Bid are approximate for the contract period and may vary as per job requirement.
12. The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents.
13. Rate quoted by contractor shall be valid for 180 calendar days from the last date of submission of bids.

QUOTE SECTIONs:

SECTION-1:

SECTION 1.1 Supply Section (Mechanical Portion)

Section 1.1 / Quote table 1.1:**For Supply: Mechanical Portion (Items wise Quote) | Table #Q1.1**

- We have quoted ____A_1 ..... A_{14}_____ Rs./ Per UOM
- GST to be quote separately_____G_1 …….G_{14}_____ in % on each Items

SECTION 1.2 Supply Section (Dummy Field Portion)

Section 1.2 / Quote table 1.2:**For Supply: Mechanical Portion (Items wise Quote) | Table #Q1.2**

- We have quoted ____$A1_5$_____ Rs./ Per UOM
- GST to be quote separately_____G_{15}_____ in % on each Items

SECTION-2: Supply Section

Section 2 / Quote table 2:**For Supply: Electrical Portion (Items wise Quote) | Table #Q2**

- We have quoted ____B_1 …… B_{13}_____ Rs./ Per UOM
- GST to be quote separately_____T_1 …….T_{13}____ in % on each Items

SECTION-3: Execution

Section 3 / Quote table 3: **For Execution Portion (To be Quote on "sum of services/execution clause" whose SoR rate per UOM displayed) | Table #Q3**

Section 3 / Quote 3: Base Estimated rates = 3,67,54,375

- We have quoted ____C_3_____% above the estimated rates as service charge. or
- We have quoted ____D_3_____% below the estimated rates as service charge.
- Quoted ___C_3/D_3___ % will be applicable to each activity`s unit estimated rate on (estimated rates) clause mention in Price Annexure for execution portion. (i.e. clause B1 – B5 & C1- C5 and D1.2/D2.2/E1.2/E2.2)
- GST to be quote separately as ____S_3_____ % above estimated rates including.

- After Considering quoted _(A1)_ A_1 …… A_{15} & (B1)_ G_1% …….G_{15}% for GST (A2)_& B_1 …… B_{13}_& (B2) T_1% …….T_{13}% for GST (A3)_+C_3/-D_3 % & (B3) S_3 % for GST, Gross Price will be derive by applying % quoted rates / % by vendor on respective section
- For section 2: Price & rates quoted above shall include cost of all consumables (except free issue materials by GIPCL) labor, supervision, tools and tackles, transport etc. and such other cost are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work except service charge & GST..
- The GST shall be paid extra at actual and also to be quote; any changes in rate of the statutory levy or imposition of new levy shall be paid extra.
- For section 1: supply item rates are estimated considering all the cost which may incur by supplier / vendor/contractor ex GIPCL with all taxes , duties , freight , transit insurance and such other cost which are not specifically mentioned herein but may require to incur to the contractor for the maintaining highest quality of material supply except service charge & GST.

- It also includes internal transportation / Unloading / Shifting to warehouse / Shifting from warehouse to Point of Lifting and further point of fitting is in the scope of contractor.
- It also includes returning of additional material to warehouse and regularization procedure followed by GIPCL like “Material Return Voucher”.
- It also includes scrapping of material from warehouse to scrap yard.
- Any plant inside shifting only during unloading / Pre shutdown for forward shifting and Post shutdown for reverse shifting.
- For section 1: supply item rates & commissioning scope coveres are estimated considering all the cost which may incur by supplier / vendor/contractor to supply parts ex GIPCL with all taxes , duties , freight , transit insurance and such other cost which are not specifically mentioned herein but may require to incur to the contractor for the maintaining highest quality of material supply and to commission the same and rate considered cost of all consumables (except free issue materials by GIPCL) labor, supervision, tools and tackles, transport etc. and such other cost are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work except service charge & GST (that to be quote separately).
- The GST shall be paid extra at actual and also to be quote; Any changes in rate of the statutory levy or imposition of new levy shall be paid extra.
- Gross Price = Net Price + Quoted % (GST) on [Net Price]

14. The quantities shown in the price Bid are approximate for the contract period and may vary as per job requirement.
15. The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents.
16. Rate quoted by contractor shall be valid for 180 calendar days from the last date of submission of bids.

2. e-Reverse Auction

1. GIPCL reserves the right to opt for e-Reverse Auction for the subject tender at sole discretion of GIPCL.
2. To participate in e-Reverse Auction, bidders have to create e-Auction USER ID on www.auction.nprocure.com and it is mandatory to submit the same along with physical Technical-Commercial Bid; so that the bidder shall be allowed to participate the e-Reverse Auction
3. For conducting e-Reverse Auction, lowest 50% out of total eligible Bidders (rounded to the next higher whole number) or Minimum Three (03) eligible bidders (L1, L2& L3) whichever is higher will be invited".
4. To participate in e-Reverse Auction, bidders have to create e-Auction USER ID on www.auction.nprocure.com and it is mandatory to submit the same along with physical Technical-Commercial Bid; so that the bidder shall be allowed to participate the e-Reverse Auction

5. For e-Reverse auction Decrement value is 1,00,000 and commencement of e-reverse auction shall be informed to the qualified Bidders before start of e-Reverse Auction. The L1 Bidder`s “Net Price-before e-reverse auction including GST” shall be put up for starting e-Reverse Auction.
6. Duration for the e-Reverse Auction shall be 30 Minutes with extension of 15 Minutes at every single reverse bid received during the last 5 Minutes, till there is no further reverse bid entry by the participating Bidders.
7. After e-Reverse Auction process, L1 bidder shall be decided on lowest rate quoted during e-Reverse Auction.
8. After e-Reverse Auction process, the original rates quoted by the final L1 bidder for individual items/packages shall be reduced proportionately based on total % reduction from their original quoted gross price v/s price derived after e-reverse auction, keeping GST percentage (%) rate same as originally quoted by final L1 bidder.
9. Prorata reduction will be applied in the quoted rates for all the items of SoR after price discovery through e-Reverse Auction.

COMPANY SEAL

SIGNATURE ……
NAME ……
DESIGNATION ……..
COMPANY ……
DATE ……

B. 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.

9. 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

10. 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.

11. EFFECT AND VALIDITY OF THE BID

a. The Bid should be kept valid for acceptance for a period of one hundred and eighty (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.

12. OPENING OF BIDS

12.1 The GIPCL will open the pre-qualification/Technical Bid/price Bid, as the case may be, in presence of Bidder's representatives whenever such a procedure has been specified. Otherwise the tender will be opened by the authorized officers of GIPCL.

12.2 Preliminary Examination:

i. 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.

ii. 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.

13. EVALUATION & COMPARISON OF BIDS

13.1 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. ***The overall lowest bidder for all the Three section (Q1 (inc Q1.1, Q1.2) & Q2 and Q3) of price schedule after considering GST will be treated as L1 bidder Post e-reverse auction.***

13.2 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.

13.3 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.

13.4 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.

13.5 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.

13.6 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.

13.7 For the above referred purpose, a ‘material deviation’ shall be one which:

(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.

14. RIGHT OF REJECTION OF TENDERS

14.1 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.

14.2 Any Tender without EMD and Tender fee will be treated as non responsive and shall be rejected at the outset & no further correspondence shall be entertained regarding this.

14.3 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.

15. AWARD OF CONTRACT

15.1 GIPCL will award the contract to that bidder whose quotation has been determined to be substantially responsive and evaluated as the lowest quotation **post e-reverse auction** 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.

15.2 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.

15.3 GIPCL reserves the right to cancel/short close the contract during the contract period without assigning any reason.

15.4 GIPCL reserves the right to split the contract quantity between vendors.

16. CONTRACT PERIOD

16.1 The contract will be for a period of 02 years from the date of actual commencement of operation of the contract as stated in the Work Order ('Contract Period').

16.2 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.

16.3 The said Contract Period can be extended if mutually agreed upon by both the parties up to one year and in such a case a revised work order shall be issued

at the same rates and terms & condition or at negotiated rates acceptable by both parties i.e. the Company & the Contractor.

16.4 The basic considerations and the essence of the 'contract' shall be the strict adherence to the time schedule for performing the specified 'works'. Contractor has to mobilize required number of manpower along with necessary tools, tackles, PPEs.

16.5 The work shall be carried out continuously round the clock with 2x12 hours shift working. Separate gangs shall be engaged in each shift without engaging the same manpower.

16.6 In case of delay in executing the contract by contractor, GIPCL reserves the right to engage another contractor and complete the balance job at the risk and cost of the contractor.

17. ASSIGNMENT AND SUB-LETTING

Sub letting of execution work shall be allowed subject to approval of GIPCL at sole discretion of GIPCL. In case of subletting the contract, contractor should furnish minimum three resourceful vendor list for approval**.**

18. CONTRACTOR'S OBLIGATIONS

1. DEPLOYMENT & RESPONSIBILTY OF MANPOWER

1. The Contractor shall deploy suitably qualified and sufficient manpower for timely & satisfactorily execution of the works under the contract.
2. The Contractor shall deploy sufficient skilled, Semi-skilled and Un-skilled manpower like technician, helper, rigger, welders, cutter, electrician, store keeper etc. separately for Overhauling and Replacement to properly complete the job in given/scheduled time.
3. The Contractor shall depute workmen/labour with proper identification to enter the plant premises after ensuring that the jobs are scheduled.
4. At the time of deploying manpower, the Contractor shall strictly comply all the applicable labour laws/Acts norms including but not restricted to the age of the workers, women workers and shall also ensure that a police verification and security check for all the workmen/labour engaged at the GIPCL site is done and necessary documents regarding the same shall be submitted to the GIPCL's authorized representative/officer-in-charge. Any default in complying with the same or any misrepresentation regarding compliance of the same shall compel GIPCL to initiate appropriate civil or criminal proceedings regarding the same.
5. The Contractor shall also comply with the safety requirements and provide his workmen/labour with safety equipment like helmets, masks, gum boots, a

uniform and other necessary PPEs for properly undertaking the operations involved under this contract. Following are also to be issued:

a) Safety shoes
b) Goggles / face shield.
c) Ear plug / Ear muff.
d) Hand gloves like electrical hand gloves / cotton hand gloves / Chemical hand gloves
e) **Note for safety helmet:** Following brands safety helmet shall be provided by contractor to his workmen.

Sr No.	Model	Company	Specifications
01.	Tough Hat, HP-TH	Sure Safety	IS : 2925 – 1984, ANSI / ISEA Z89.1-2009
02.	V-Gard	MSA	
03.	**PN 521 – S helmet**	Karam	

6. Contractor shall nominate /authorize senior experienced person in writing as site in charge to co-ordinate with GIPCL engineer and who shall bear overall responsibility for performance of the contract. Such person shall remain always available at site or site office allotted to the contractor at SLPP site. Contractor has to submit the authority letter and documentary proof for the same.
7. The Contractor shall appoint a supervisor who shall co-ordinate with GIPCL's Engineer In - Charge for daily maintenance job. They have to maintain daily job register dully signed for the works carried out and duly certified by engineer in charge. The Contractor in co-ordination with the Engineer-In-Charge shall ensure the availability of adequate manpower to carry out the job satisfactorily on a daily basis. As per the instruction of engineer inchrage they have to allot the work and execute the same in specified time limit.
8. During execution of the works, one or more jobs may be required to be done simultaneously and the Contractor shall mobilize additional resources accordingly.
9. During working in high risk area in ESP workman must wear a suitable safety apron, safety belt, safety hand gloves and goggles. It is the contractor's/contractor's supervisor's responsibility to ensure it without fail.
10. During unit overhauling, the contractor has to enhance the site manpower as per the requirement to ensure the timely completion of work (During overhauling period quantum of maintenance work increases substantially). For this, enhanced work shall be completed by deploying additional

manpower with separate supervisor. Payment will be made on job rate basis only. The work during the overhauling period is to be carried out round the clock. Contractor should mobilize sufficient number of manpower and execute the work in two shifts with independent manpower. Contractor should not continue the same manpower more than 12 hours.

2. TOOLS & TACKLES

1. All tools and tackles required to execute the contract are in the scope of the contractor. The contractor should ensure that tools and tackles are in healthy & working condition. All consumable items i.e. cloth, cotton waste, kerosene oil, gases (Oxygen, D/A, Argon), welding electrode, etc. would be in the scope of the contractor.
2. Note: the welding electrode should be approved make i.e. Advani, Oerlikon, ESAB, D&H, L&T.
3. For proper execution of contract, the contractor is required to maintain all required of tools & tackles in good working condition at site. The contractor should note if any additional tools and tackles are required for proper performance of the contract, the same shall also be arranged by the contractor immediately with no extra cost to GIPCL.
4. Provision of scaffolding material for maintenance work will be in the scope of the contractor. The scaffolding shall be with pipe and clamps, metallic jallies.
5. The Contractor shall be required to shift spares, lubricant etc in required quantity duly approved by GIPCL's Engineer-in-Charge whenever necessary from GIPCL store/ warehouse to site or site store as per the instructions of Engineer- in -charge. Contractor shall be required to arrange transportation for above. The cost of transportation will be on contractor's account. The contractor shall be responsible for safe transportation, handling and storage. If equipment gets damaged due to improper transportation or fails due to improper lubrication or intermixing, the cost of such damages shall be recovered from contractor's bills. It is the responsibility of contractor to keep various lubricants separately to avoid intermixing. If the failure /defects of equipment occurs due to improper method of maintenance, equipment assembly due to contractor negligence than the losses will be recovered from contractor's bills.
6. Contractor should work round the clock for execution the work.
7. Arrangement for lighting at the work spot has to be made by the contractor. He has to arrange all lighting equipment such as power cable, hand lamps. The contractor has to take prior approval for taking electrical power supply. The contractor should keep hand lamps of 24Volt for confined space and

sufficient quantity of 240 Volt and halogen lamp. for other area ensuring safety at work place

8. Electrician/supervisor should ensure that the cable connection is not in loose condition, which may cause any damage or failure to the machine/manpower. Pin sockets of IS standards should be used for all connections. For any accident take place & any damage to the equipment and/or injury to human due to carelessness in loose connection, contractors will be held responsible & liable for any recovery/actions.
9. All new replacements whether spare parts or any other, shall be inspected and approved by GIPCL Engineer in charge before it is actually put in use. It shall be the contractor's/supervisor's responsibility to ensure this without failure.
10. The Contractor must ensure that all the generated scrap, cotton waste, waste oil, tools and tackles are removed from the site immediately after completion of works and he must ensure cleaning of the site. Further, these items should be disposed off to the scrap yard or any other designated place as instructed by Engineer In Charge. In case of heavy weight items, if required transportation may be arranged by the GIPCL at the discretion of the engineer in charge. If the scrap removal is not done within 5 days or mutually agreed duration after unit wise ESP handover (Pass wise if work carried out through single pass operation other pass isolation whatever applicable) given by GIPCL Engineer, the scrap will be removed by GIPCL at the risk and cost of Contractor with 15% of overhead charges. This clause shall be made applicable after such duration.
11. Insulation scrape materials like glass wool, ceramic wool etc. should be collected in gunny bags with proper care and then disposed off at a suitable location as per the instruction of engineer in charge.
12. It is the responsibility of site in-charge to segregate and remove the scrap from site. Work will be certified by Engineer In Charge only after removal of scrap to the scrap yard.

19. 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 mechslpp@gipcl.com / mkvelu@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.

20. 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'.

21. 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.

22. PAYMENTS

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

23. POINTS TO BE CONSIDERED DURING QUOTING ONLINE PRICE BID

a. The schedule of rates shall be read in conjunction with Instructions to Bidders, General conditions of contract, Special conditions of contract and Technical specifications.
b. The quantities given in the schedule of rates are estimated and will be made as per actual work carried out as per the rates of work order.
c. The method of measurement of completed work for payment shall be in accordance with the method of measurement specified in the contract
d. 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 e-tender due to probable technical problem in e-tender system.

24. QUANTITIES

The quantities specified are estimated and for tendering purpose only. Payment will be made, based on 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.

After commencement of the work, GIPCL, for any reason may not require to be carried out the whole/part of the work as specified in the tender, the ENGINEER-in-charge shall inform the fact for thereof to the CONTRACTOR and contractor shall have no claim for any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the full amount of the work not having been carried out nor shall he have any claim for compensation by reason of any change having been made in the original specifications and instructions which shall involve any curtailment of the work as originally contemplated.

Basic scope shall remain fixed and quantity variation is mainly applicable only for the price of service scope for overhauling spares which shall be provided by GIPCL as free issue items. For overhauling spares installation payment will be made as per unit rates for actual quantity replaced in each unit.

The quantities specified are estimated and for tendering purpose only. Payment will be made, based on actual work done as certified by Engineer-in-charge of GIPCL.

25. SPLIT OF WORK

The GIPCL reserves the right to split the work among more than one contractor at the stage of initial award of contract, reject or accept/prefer any tender without assigning any reason whatsoever.

Bidder has to quote for total scope. Bids received not covering the total scope shall not be considered. However, GIPCL reserves the rights to allot all the four units' work to a single bidder or GIPCL may split the contract between two parties, Phase wise / Unit wise work separately as it may deem appropriate. In case of splitting of the contract between two parties, the L2 bidder shall match the rate with L1 bidder. After award of work, GIPCL reserves the right to increase or decrease the quantum of works awarded, depending upon progress and performance of work. The GIPCL will not entertain any claim from contractor as a result of such splitting up, rejection, acceptance and reduction in scope.

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SECTION-B

INSTRUCTIONS TO BIDDERS FOR ONLINE TENDERING

Sr. No	Description
01.	Tender documents are available only in electronic format and same can be downloaded from the website **https://www.nprocure.com** and **https://gipcl.nprocure.com** and It can also be viewed from Company's website **www.gipcl.com .**
02.	Price bid should be submitted online through the website **https://gipcl.nprocure.com** 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: nprocure@gnvfc.net , website: www.nprocure.com

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.

REVERSE AUCTION:

1. 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.
2. E-Reverse Auction will be carried out through new e-Reverse Auction portal of (n) Code Solution: https://e-auction.nprocure.com.
3. 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 E-reverse auction platform.
4. As per the tender conditions, L1 value will be declared to start e-Reverse Auction and final reduction in this value by e-Reverse Auction process will be the final L1 price.

5. The decrement value for the e-Reverse Auction is Rs. is 1,00,000.
6. Duration for the e-Reverse Auction shall be **30 Minutes** with extension of **15 Minutes** at every single reverse bid received during the last **5 Minutes,** till there is no further reverse bid entry by the participating Bidders.
7. After e-Reverse Auction process, L1 bidder shall be decided on lowest rate quoted during e-Reverse Auction.
8. Post e-Reverse auction, Reduction in prices will be distributed proportionately on price schedule.
9. 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

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 "Contract Price without GST" from any Nationalized Bank including Public Sector bank-IDBI Ltd or AXIS Bank, HDFC Bank, ICICI Bank or Kotak Mahindra bank, Yes Bank, Ratnakar Bank, IndusInd Bank, Karur Vysya Bank, DCB Bank, ING Vyasya Bank or The Kalupur Commercial Co-operative Bank Ltd, Rajkot Nagrik Sahakari Bank Ltd, The Ahmadabad Mercantile Co-operative bank Ltd, The Mehsana Urban Co-operative Bank Ltd, Nutan Nagrik Sahakari Bank Ltd 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 work order. The guarantee shall be valid up to guarantee period + claim period of three months. The Guarantee amount shall be payable to the Company in Bidder's home currency without any condition whatsoever.

GIPCL reserves the right to forfeit Performance Bank Guarantee (PBG)/Contract security deposit.

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

Bid security/EMD should be refunded to the successful bidder on receipt of Performance Security.

2. **RECOVERY CLAUSE**

(i) In case of any damage of equipment/machinery due to gross negligence of contractor, decision of Engineer-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/or retention money/security deposit. However, it shall exclude any indirect and consequential losses.

(ii) If the contractor fails to execute the work as per directions of Engineer (I/c) within the time frame given in work order, GIPCL shall provide a notice period of 5 days to discuss and submit recovery plan, beyond which GIPCL shall have the liberty to 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

As given in section-B

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 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 period before termination 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. Contractor is adjudged as insolvent.
ii. Contractor has abandoned the contract.
iii. Contractor fails to proceed with the work with due diligence as per requirements of the contract.
iv. 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.
v. Contractor repetitively violating the safety norms for more than three incidents.
vi. Any major contradiction of applicable labour laws.

vii. Any major deviations from contractual terms and conditions including quality of job.

5.1: CONTRACTOR`S RIGHTS FOR SUSPENSION AND TERMINATION OF CONTRACT:

i. Purchaser becomes Insolvent / Bankrupt
ii. Purchaser commits a material breach of the Contract.
iii. Contractor shall have right of suspension and termination in case purchaser does not pay due payments within 90 days from the date it is due.
iv. Contractor shall have right of termination in case of prolonged suspension including that due to Force majeure more than 150 days.

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 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 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

a. 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. Arbitration shall be as per The Arbitration & Conciliation Act, 1996 and amendment thereafter. The place of arbitration shall be at Surat/Vadodara or any other place within state of Gujarat as may be mutually agreed by the parties in consultation with the tribunal.

b. In appointment of the Sole Arbitrator, if the dispute claim is up to a sum of Rs. 25/- Lac, a person having a position equivalent to a Retired District Judge shall be appointed; for the claim higher than Rs. 25/- Lac and up to Rs. 100/- Lac, the same shall be referred to a Retired High Court Judge and for a claim exceeding Rs. 100/- Lac, the same shall be referred to a Retired Supreme Court Judge.

c. 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 General Manager (SLPP) - 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 Surat Jurisdiction 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 as per clause no. 24 herein under.

10. STATUTORY REQUIREMENTS

10.1 The contractor shall be solely responsible for any accident caused to his workers and should adhere to all rules / regulations as per labour laws of Government and other statutory laws as applicable.

10.2 The contractor should register himself under the Contract Labour 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 Labour 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.

10.3 Contractor shall have to insure his workmen /supervisors etc. under Group Insurance scheme.

10.4 The Contractor shall be responsible for compliance of all statutory rules, regulation, act enforced from time framed by the government such as Factory Act, Employee Compensation Act, payment of 'Wages Act', Minimum Wages Act', Provident Fund Act, All Labour 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.

10.5 Documentary evidence of deposit of PF paid shall have to be produced by the contractor along with the next bill.

10.6 Records as per the provisions of various statutory Acts will have to be maintained by the contractor and submitted as and when required.

10.7 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.

A. COMPLIANCE OF LABOUR LAWS

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 to him or to this contract from time to time. These Acts/Rules include without limitation of the followings.

1. 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, Employee 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.

2. 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.

2.1 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.

2.2 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 SLPP site and furnish the same failing which GIPCL may terminate the contract at its sole discretion.

2.3 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 SLPP Site 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.

2.4 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.

2.5 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.

2.6 The Contractor shall not pay less than the Minimum Wages notified by the Government from time to time to his employees of corresponding categories.

2.7 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.

2.8 The contractor shall take Employee Compensation Insurance Policy for all his employees working at SLPP. The contractor shall indemnify the company against any liability due to any work injury or accident to any of its employees.

2.9 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 Employee Compensation Act, 1923.

2.10 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.

2.11 The Contractor shall not engage / employ persons below the age of 18 years. Employment of women shall be strictly according to applicable laws.

2.12 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 Employee 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.

2.13 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 challan along with ECR copy on monthly basis to HR&A dept. for verification and record.

2.14 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.

2.15 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.

2.16 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.

2.17 Contractor shall have to insure his workmen /supervisors etc. under Group Insurance scheme.

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

2.19 Documentary evidence of deposit of PF paid shall have to be produced by the contractor along with the next bill.

2.20 Records as per the provisions of various statutory Acts will have to be maintained by the contractor and submitted as and when required.

2.21 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.

2.22 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 & any other applicable 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 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

- Arrangement for lighting at the work spot and area has to be made by the contractor. He has to arrange all lighting equipment such as power cable, hand lamps halogen & HPSV/ LED fixtures. The contractor has to take prior approval for taking electrical power supply. The contractor should keep hand lamps of 24Volt for confined space and sufficient quantity of 240 Volt and halogen lamp. for other area ensuring safety at work place
- Electrician/supervisor should ensure that the cable connection is not in loose condition, which may cause any damage or failure to the machine/manpower. Pin sockets of IS standards should be used for all connections. For any accident take place & any damage to the equipment and/or injury to human due to carelessness in loose connection, contractors will be held responsible & liable for any recovery/actions.

14. NIGHT/SUNDAY/HOLIDAY SHIFT

The contractor shall depute qualified and adequate resources in night shift/Sunday/holidays to complete the job in schedule time.

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 the SLPP site, the safety norms as per the safety operating standards.
2. The Contractor shall ensure that his workmen are informed and trained regarding the safety standards to be adopted while operating within the SLPP Plant & Mines premises 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 SLPP site.
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. Contractor should ensure that their workers are wearing Safety helmet, safety shoes, dust mask, goggles, ear plug etc. at all times when they are at work throughout the contract period. 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. The Contractor shall nominate one Safety Officer with required qualification for supervising the daily job/ shutdown jobs for observing and maintaining the safety aspects at site. He is solely responsible for any safety measures during maintenance work. He has to ensure that all the workmen working at site are equipped with essential PPE’s and proper safety arrangement is made at the SLPP site.
11. After mobilization of any tools & tackles to site, which includes chain pulley blocks, D-shackles, wire ropes, winch machines, Mobile crane, Hydra etc. shall be offered for inspection with all above statutory test certificate before using at site for any work. They should use all tools and tackles only after certification by GIPCL representative/safety officer.
12. When working at height, working on ceiling or roof covered with fragile materials, full body harness safety belt, ladders and crawling boards shall be used to prevent accident. Further, during working on height, contractor should arrange proper scaffolding of still pipes, safety net, full body safety belt, fall arrestor system etc. Advice and instructions of engineer in charge/ safety in charge shall be strictly complied with in this regard. All necessary safety

precautions shall be taken by the contractor to prevent accident and personnel injuries while working on height.

13. Flash back arrestors made of reputed manufacturer shall be provided on cutting torch, on DA cylinders and on O2 cylinder. Cylinder caps also required for handling the cylinders at the work at height area. Gas cylinders shall be transferred through gas cylinder trolley only with cylinder cap and stored up right (vertical) position only. All gas cylinders shall be hydro tested / certified as per gas cylinder rules 2004. Gas cylinders shall be stored, handled as per gas cylinder rules 2004.
14. 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.
15. 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.
16. During hot work, contractor will use fire curtains like asbestos sheets or fire blankets to prevent falling and spreading of sparks and hot material on and around the work area. Contractor will procure and use such items. ELCB / RCCB shall be provided with rating of 9-30 milli ampere on welding machine and all portable power tools.
17. 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 SLPP site.
18. Major AMC / ARC contractor (Where the man power strength is more than 50 and above) should appoint / nominate one qualified safety officer and he shall be responsible for addressing all the safety related aspects of execution of contract jobs and he will in close co ordination with safety officer of SLPP and attend all safety related meeting such as safety committee, on job safety training etc. Where the contractual man power is less than 50, the site incharge of the contractor will act as a safety officer and he will perform all the duties of safety officer as mentioned above.
19. No loose connection / joints allowed in electrical cables during performance of any kind of job.
20. Safety shoes to be issued to female employees also.

21. All the vehicles shall be fit as per RTO guidelines and valid fitness certificate is required as per RTO guidelines.
22. The Contractor's nominated safety officer shall be imparted regular on-job safety training like tool-box talk etc. and submit a record of such training in safety dept, respective dept and HR&A dept.
23. The Contractor shall comply all the new requirements related with safety as informed by the HOD / Safety department from time to time.
24. 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
A	PPEs Related	Working without helmet, shoes, safety belt, gloves etc.	Rs. 100 /- per instant.
B	WI Related	Failure to adhere to HSE guidelines/plans, careless attitude in material handling, Machine being used with damaged machine guard, unsafe electrical work - 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.	• Rs. 500 /- per instant. • After three incidence, Per incidence Rs. 2500/- • Continuous unsafe acts will disqualify the contractor from further participation in tender of GIPCL-SLPP.
		Unsafe working	

		practices at height more than 3 meters	
		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 etc..	
C	Unsafe Practices	Breach of safe practices by a particular person repeatedly for three times.	Suspend the entry gate pass for one week. After two suspensions his gate pass will be cancelled.

Penalty so levied against the contractors and company employees will be used during the observation of 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 plant, materials, 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. However Contractor shall not be liable for any workmanship warrantee when arise due to defect in GIPCL supplied material.

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. **GENERAL TERMS AND CONDITIONS:**

1. All tools & tackles, labours, equipments, vehicles, tractors, etc… to execute the contract are in the scope of the contractor. The contractor should ensure that tools& equipments are in healthy condition.
2. The decision of the Engineer-in-charge shall be final and binding on the contractor for defining the terms and condition included in this contract.
3. If the work is not found satisfactory, Engineer-in-charge reserves the right to take suitable action.
4. Contractor shall depute Location/Package wise full time independent experienced site-in-charge and two nos. of independent site supervisors (each at unit /Boiler or unit wise if work performed in more than one unit in parallels) at site. They shall co-ordinate with GIPCL engineer and shall bear overall responsibility of contract including joint measurement, billing etc. Such person shall function from site office of contractor at SLPP.
5. Contractor shall also nominate one safety supervisor at site and shall submit nomination of safety supervisor in writing before commencement of contract. Safety supervisor shall arrange small safety talk on every day morning or whenever required with all workers working under this contract. He shall coordinate with concern department's Engineer-in-charge on daily basis and report daily observations, tool-box talk records etc. The work shall not be allowed without deploying safety supervisor and a penalty equal to Rs. 1,000/- per day absent of safety supervisor shall be levied from Contractor.
6. Contractor shall strictly follow the existing work permit system of the GIPCL and any future revisions.
7. The contractor has to take EC insurance policy for their workmen. The contractor has to submit labor license and PF account number to the Engineer-in-charge before start the work.
8. The contractor has to do the job timely. GIPCL shall not compromise in delay. In case of delay of work without any valid reason, the GIPCL reserves the rights to carry out the work by deploying other agencies at the risk & cost of contractor with additional 15% overhead charges.
9. The scope against each activity mention in annexure/clauses also cover receipt / transfer spare material from ware house, renewal of PTW on daily basis against

work , removal of any scrap generated out of work executed as per instruction and procedure suggested by engineer incharge.

10. Contractor shall mobilize the resources as per need within the period of four hours. If the contractor fails to mobilize sufficient resources to complete the job in time, GIPCL will execute the job through other agency at the risk and cost of the contractor with additional 15% overhead charges.
11. Contractor should mobilize all resources for efficient & smooth execution of contract within seven days from the date of issue of Letter of Intent/Work Order.
12. The prices / item rates quoted shall remain firm till completion of the contract and any agreed extensions thereafter and shall not be subject to any escalation, idle charges for labor, machinery, overhead expenses etc… due to any reason whatsoever. No price escalation / idle charges shall be entertained due to delay in work on unavailability of work front, non-issue of work permit, holding of work permit for any reason up to one week., However unavailability of contractor's supervisor, unavailability of contractor's safety supervisor, violation of safety rules, unsafe act by any of contractor's worker, negligence & ignorance of safety & quality instructions of GIPCL Engineer-in-charge or any other reason whatsoever will attract penalty as per mentioned in tender specification.
13. Contractor must fulfill all the safety regulations and to take safety measures to avoid hazards. Contractor shall arrange all standard adequate healthy safety PPEs like but not limited to approved quality safety shoes& safety helmets, standard dust masks, safety goggles, etc… as required and shall use exclusively under this contract for all the time during working at specified locations failing which, the Engineer-in-charge may hold the work and will take necessary action including penalty as decided. If the contractor repeatedly violates safety rules/regulations (more than three successive incidents), Engineer-in-charge may take necessary action against the contractor, including appropriate financial penalty (Maximum of Rs. 1,000/- per incident per man-day and as per clause no.12) and/or termination of contract.
14. One or more jobs may be required to be done simultaneously and contractor shall mobilize additional resources accordingly.
15. Timely completion of all jobs and works shall be the essence of this Contract. Contractor should closely monitor each activities and complete the jobs as per the time given by and under the supervision of the Engineer-In-charge and shall ensure that sufficient manpower is deployed for the same.
16. The contractor has to complete the works as per the planning schedule and their respective supervisor has to interact with Engineer In Charge for PTW (Permit to work), work instruction, Return of permit.
17. The contractor has to submit daily reports showing work carried out with details of available manpower, resources etc.

18. Any job other than the listed jobs in work order shall be executed by the contractor on instruction from GIPCL and payment shall be made to the contractor on respective item rate only. Further Rates of any other job, not having rates in work order, shall be arrived / derived from similar job rates with mutual agreement.
19. The Government of India has enacted the Micro, Small and Medium Enterprises Development Act, 2006 (the "Act") and the Act has come into force from October 2, 2006. The Bidder shall confirm whether your organization is registered under the Micro, Small and Medium Enterprises Development Act, 2006. If your organization is registered under the Act, please specify the category i.e., Micro Enterprise, Small Enterprise or Medium Enterprise under which it is registered and kindly attach a copy of your registration certificate.
20. The Bidder shall provide details of registration along with copy of the registration certificate issued by the District Industries Centre/Department of Industries, etc of the respective State Government. It is to be noted that large scale industries and trading firms have been excluded from the purview of the Act.
21. GIPCL is an ISO 9001, ISO 14001, OHSAS 18001 & ISO 50001:2011 (EnMS) certified company, and GIPCL gives extreme importance to maintain these global standards. Contractor shall be required to observe these standards while working with GIPCL. Contractor should ensure that his workmen/labour work in accordance with them.

19. **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 CONTRACTOR'S supervisory engineer absence during working hours, if unavoidable, and also beyond working hours, when it may be necessary to give directions, orders may be given by the ENGINEER / GIPCL and shall be received and obeyed by the CONTRACTOR'S superintendent or Foreman who may have charge of the particular part of the work in reference to which orders are given. If requested to do so, the ENGINEER /GIPCL shall confirm such orders in writing. Any directions, instructions or notices given by the ENGINEER / GIPCL to him, shall be deemed to have been given to the CONTRACTOR. The representative of the CONTRACTOR shall have all necessary powers to receive materials from the GIPCL, issue valid receipts for the same, engage labour or purchase materials and proceed with the work as required for speedy execution.

None of the CONTRACTOR'S Superintendents, engineers, supervisors or labour should be withdrawn from the work without due notice being given to the GIPCL / ENGINEER; further no such withdrawals shall be made if in the opinion of the

GIPCL / ENGINEER such withdrawals will jeopardize the required pace of progress / successful completion of the work.

The CONTRACTOR shall employ in or about execution of the work only such persons as area careful, skilled and experienced in their respective trades, and the GIPCL shall be at liberty to object to and require the CONTRACTOR to remove any person employed by the CONTRACTOR in or about execution of works who in the opinion of the ENGINEER misconducts himself or is incompetent or negligent in the proper performance of his duties and all such persons shall not again be employed upon the works without the prior permission of the GIPCL.

Neither the CONTRACTOR and the PURCHASER nor the ENGINEER shall hire or employ any employee of the other party except by mutual consent.

20. 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.

21. FACILITIES TO BE PROVIDED BY GIPCL

A. The Company shall provide the following facilities to the Contractor at the site:

- **a.** Electricity & water at nearest available one point. Further distribution to be done by contractor at their cost.
- **b.** Quarter(s) for supervisor/ engineers on chargeable basis in GIPCL's township at discretion of GIPCL if available.
- **c.** Workshop facility as available at site only. However 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.
- **d.** Site office shall be provided at site.
- **e.** Hydra will provided by GIPCL based on availability on chargeable basis.
- **f.** First aid facilities as available on chargeable basis.

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

B. Items/services to be provided by GIPCL free of cost.

(i) Spares

(ii) Lubricants

The Contractor has to collect above items from GIPCL stores/warehouse and shifting arrangement has to be made by Contractor at his own cost and within minimum shifting time. Contractor may keep the separate vehicle for shifting of spares and lubricants for timely movement of materials at site. Contractor shall give report/ reconciliation of the issue of materials drawn.

22. WORK MEASUREMENT/CERTIFICATION

a. The work to be performed being a specialized nature, the contractor should be fully conversant with modern practices and should be able to carry out works independently of large thermal power plant. The contractor shall therefore be required to engage qualified/ experienced personnel to undertake the work as per specifications and requirement.

b. Contractor should maintain one computer with printer for keeping daily records and maintain the data.

c. The Contractor shall be required to furnish satisfactory job completion report to GIPCL. The submission of report should be on daily basis, the monthly bill payment shall be released based on the certified reports of the works.

d. 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.

23. 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-SLPP site for the accident taking place anywhere outside the Company premises or at any place when the workman is not in course of his employment.

24. 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.

25. 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.

Further Indemnity shall be limited to contract value governed by Limitation of Liability clause excluding IP, criminal negligence and wilful misconduct. Limitation of liability shall include Third party claim.

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.

26. LIMITATION OF LIABILITY AND CONSEQUENTIAL DAMAGE:

Total aggregate liability under this contract/order, on all account including but not limited to direct or indirect losses etc. shall be limited to the total contract value (Excluding Taxes, freight & Insurance). Contractor shall not be held liable for any other indirect or consequential losses or Loss of Profit.

27. GOVERNING LAW AND JURISDICTION

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

28. 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.

SECTION-D
SPECIAL CONDITIONS OF CONTRACT

1. SCOPE OF WORK

ESP Description	Unit 1 & 2-PH-I, Make: BHEL	Unit 3 & 4-PH-II, Make: BHEL
Type of ESP	2xFAA-7x45(45) -126-135-2	2xFAA-7x45(45) -132-135-2
No of passes	2	2
Number of fields per pass	07 including 01 dummy field (Last)	08 including 01 dummy field (First)
Pitch between Two Collecting Electrode	300 mm	400 mm
No of rows for CE	43 per field each row 6 plates.	34 per field each row 6 plates
No of rows for EE	42 rows per field, each row 54(18x3) electrodes.	33 rows per field, each row 54(18x3) electrodes.
Total No. Of fields	12 in each unit,14 in Phase-1	14 in each unit,28 in Phase-2
Dummy Field Status	Last Dummy Fields are to be revived in Present Tender. Total Field to be revived: 4 Nos. with 400 mm pitch design.	First Dummy Fields were revived. Total Revived Field : 4 Nos.
Total No. of Working Field at Present	12 in each unit,24 in Phase-1 excluding dummy Fields	16 in each unit, 32 in Phase-1 including dummy Fields

2. Scope broadly covered in four parts:

Clause No.	Work Description	UOM	Page. No.
Clause A1	Supply of internals for Replacement of all working internals-Phase-1	Lot for 9 Field	70-73
Clause A2	Supply of internals for Replacement of all working internals- Phase-2	Lot for 3 Field	
Clause A3	Supply of all required spares for revival of dummy field including TR set and Panel with all mechanical/ electrical/electronic spares and their accessories in U1 & U2 (2 Field in each unit)	Lot for 4 Field 1lot for 1 Field	63-69
Clause A4	Supply Additional Spare for Phase#1 & Phase # 2	Lot	74-77
Clause B1	Execution of erection and commissioning for Field Replacement of all working internals- Phase # 1	Per field	91-97
Clause B2	Execution of erection and commissioning for Field Replacement of all working internals- Phase # 2	Per field	
Clause B3	Mobilization for Field Replacement	Per Mobilization Per Unit	

Clause B4	Execution of installation of all required spares for revival of dummy field including TR set and Panel with all mechanical/ electrical/electronic spares and their accessories in U4 along with commissioning (Execution Including Mobilization of separate & additional resources)	Per Field	78-90
Clause B5	Execution for Inner Roof Replacement Work	Per Field	98-98
Clause C1	Prescribed minimum maintenance activity-Phase-1 during shutdown	Per unit	99-100
Clause C2	Prescribed minimum maintenance activity-Phase-2 during shutdown	Per unit	
Clause C3	Mobilization Charges for Prescribed minimum maintenance activity & Clause wise Overhauling activity covered in Clause C4	Per Mobilization Per Unit	101-101
Clause C4	Overhauling/Repair / Replacement/ servicing-service clause wise for both phase-1 & 2	Service clause wise (25 Clauses)	102-110
Clause C5	Repair / Replacement / Overhauling for GD screen / Ridge Plate / Dust Guard for both phase-1 & 2	Service clause wise (10 Clauses)	111-114
Clause D1.1	Supply of 4 No. 3-Phase Transformer for each Phase;Phase-1	Clause wise	115-121
Clause D1.2	Erection & Commissioning–of 4 No. 3-Phase Transformer for each Phase; Phase-1	Per Transformer	
Clause D2.1	Supply of 4 No. 3-Phase Transformer for each Phase; Phase-2	Clause wise	
Clause D2.2	Erection & Commissioning–of 4 No. 3-Phase Transformer for each Phase; Phase-2	Per Transformer	
Clause E1.1	Supply of Controller/Panel's Retrofitting/Up gradation; 16 For Phase-1.	Clause wise	121-124
Clause E1.2	Erection & Commissioning of Controller/Panel's Retrofitting/Up gradation ; 16 For Phase-1	Per Controller	
Clause E2.1	Supply of Controller/Panel's Retrofitting/Up gradation ; 20 For Phase-2	Clause wise	
Clause E2.2	Erection & Commissioning of Controller/Panel's Retrofitting/Up gradation ; 20 For Phase-2	Per Controller	

** In case partial field replacement is to be carried out than billing will be governed by partial field replacement schedule“

Combine Price Schedule:

Clause. No.	TABLE	UOM	Qty.	Part	Estimate Unit rate before T & D per UOM	Total net Estimate before T & D	Section for SOR	SECTION for Quote
Clause A1	TABLE #Q1.1	Lot for 9 Field	1	Part 1 Supply Mechanical Portion	For Supply Portion-Mechanical Part, Bidder need to quote item wise rate for 15 items & GST rate in % for 15 items. Refer Supply Portion Price Schedule format for mechanical Items below.			**Non SoR** Section 1- Supply (Mechanical) (Item wise rate to be quote along with GST)
Clause A2		Lot for 3 Field	1					
Clause A3		Lot for 1 Field (BBU to be submit for approval)	4					
Clause A4	TABLE #Q1.2	Lot	4					
Clause D1.1	TABLE #Q2	Lot	1	Part 1 Supply Electrical Portion	For Supply Portion-Electrical Portion, Bidder need to quote item wise rate for 13 items & GST rate in % for 13 items. Refer Supply Portion Price Schedule format for electrical Items below.			**Non SoR** Section 1- Supply (Electrical) (Item wise rate to be quote along with GST)
Clause D2.1			1					
Clause E1.1		Lot	1					
Clause E2.1			1					
Clause B1	TABLE #Q3	Per field	9	Part 2 Execution Mechanical Portion	11,34,000	1,02,06,000	3,38,78,375	**SoR** Section 2 / Clause wise Schedule of Rates (SoR) given & Bidder need to quote service charge in % on sum of Clause wise SoR, i.e. Rs. 3,38,78,375 (Mech. Portion) + 28,76, 000 (Elect.
Clause B2		Per field	3		10,24,000	30,72,000		
Clause B3		Per mobilization per unit	5		7,22,000	36,10,000		
Clause B4		per Field	4		25,48,125	1,01,92,500		
Clause B5		per Field	12		1,39,000	16,68,000		
Clause C1		Per Unit	3		1,56,000	4,68,000		
Clause C2		per Unit	3		1,20,000	3,60,000		
Clause C3		Per mobilization per unit	6		1,50,000	9,00,000		
Clause C4		Service clause wise	1		24,05,875	24,05,875		
Clause C5			1		9,96,000	9,96,000		
Clause D1.2		Per Transfor	4	Part 2 Execut	1,64,000	6,56,000	28,76,000	

Clause D2.2		mer	4	ion Electrical Portion	1,60,000	6,40,000		Portion) = 3,67,54,375
Clause E1.2		Per Controller	16		42,500	6,80,000		
Clause E2.2			20		45,000	9,00,000		

Section-1 Supply Portion-Mechanical Supply Portion Break-up for mechanical Items- in Detail Non **SoR :**

Table Q1.1

Serial No.	Item Code	Quantity Schedule A1	Quantity Schedule A2	Quantity Schedule A4 Part B	Quantity Schedule A4 Part C	Quantity Schedule A4 Part A	Quantity Schedule A3	Total Quantity to be Supply	UOM
1	710802038	2322	612	258	204	Not Applicable	Not Applicable	3396	Nos.
2	710801032	3870	1020	430	340			5660	Nos.
3	710801039	9288	2448	1032	816			13584	Nos.
4.1	150105020	2335	620	260	206			3396	Nos.
4.2	150105019	4644	1224	516	408			6792	Nos.
5	710117001	20445	5365	2278	1782			29808	Nos.
6	710117002	15	5	1	1			18	Nos.
7	710801058	3870	1020	430	340			5660	Nos.
A(8)	2710801044	Not Applicable				387		387	Nos.
B(9)	2710801045					50		50	Nos.
C(10)	2710801050					387		387	Nos.
D(11)	2710802002					68		68	Nos.
E(12)	710801034					129		129	Nos.
F(13)	710801014					8		8	Nos.

Table Q1.2

Sr. No.	Item Description	Quantity Schedule A3	Total Quantity to be Supply	UoM
14	Supply of Dummy field revival (Refer Scope of supply Clause A1.3 Mechanical + Electrical)	4 Field	4 Field	Set/ lot

Supply Portion Price Schedule format for mechanical Items- **Non SoR**

Table Q1.1								
Sr. No.	**Item Code**	**Total to be Supply (A)**	**UoM**	**Unit Rate Per UOM, (B)**	**Total** (C = A x B)	**GST Rate (%)**	**GST Amount (Rs.) (D)**	**Total Amount (incl. GST)**
1	710802038	**3396**	**Nos.**	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item >*		
2	710801032	**5660**	**Nos.**	*<Amount to be Quote by bidder>*				
3	710801039	**13584**	**Nos.**	*<Amount to be Quote by bidder>*				
4.1	150105020	**3421**	**Nos.**	*<Amount to be Quote by bidder>*				
4.2	150105019	**6792**	**Nos.**	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		
5	710117001	**29870**	**Nos.**	*<Amount to be Quote by bidder>*				
6	710117002	**22**	**Nos.**	*<Amount to be Quote by bidder>*				
7	710801058	**5660**	**Nos.**	*<Amount to be Quote by bidder>*				
A(8)	2710801044	**387**	**Nos.**	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		
B(9)	2710801045	**50**	**Nos.**	*<Amount to be Quote by bidder>*				
C(10)	2710801050	**387**	**Nos.**	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		
D(11)	2710802002	**68**	**Nos.**	*<Amount to be Quote by bidder>*				
E(12)	710801034	**129**	**Nos.**	*<Amount to be Quote by bidder>*				
F(13)	710801014	**8**	**Nos.**	*<Amount to be Quote by bidder>*				
								***S1 (sum)**
Table Q1.2								
Sr. No.	**Item Description**	**Total to be Supply (A)**	**UoM**	**Unit Rate Per UOM, (B)**	**Total** (C = A x B)	**GST Rate (%)**	**GST Amount (Rs.) (D)**	**Total Amount (incl. GST)**
14	**Supply of** Dummy **field revival (Refer Scope of supply Clause A1.3 Mechanical + Electrical)**	**4**	**Set/ Lot**	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		***S2 (sum)**
Total inc GST for Supply Portion Mechanical (Q1)								***S (sum)**

*S (S1+S2) , S1 & S2: Derive sum based on Quotes from bidders, *<Total Inputs from bidder : 15 (column B) +15 (Column "GST Rate")>*

Section-2 Supply Portion-Electrical Supply Portion Break-up for mechanical Items- in Detail - **Non SoR | TABLE # Q2**

Serial No.	Item Description	Total Qty. to be Supply	UOM
I	Supply of 3 Phase HV Transformer (rectiformer) with suitable External Disconnecting Switch	8	No.
II	Field controller panel (TRCC Panel) along with latest Controller for 3PH TR set having local & remote control facility & ERM/CRM motor control	8	No.
III	PH-1 LT Module (Complete Switch fuse Unit) at LT MCC 400A Siemens make including supply of fixed contact at vertical dropper bus bar and incoming /outgoing copper bus bar assembly inside module, doors, outgoing assembly at Cable vault for connecting outgoing cable etc suitable for 3 phase supply	4	No.
IV	Ph-2 LT Module (Complete Switch fuse Unit) at LT MCC 400A C&S make including supply of fixed contact at vertical dropper bus bar and incoming /outgoing copper bus bar assembly inside module, doors, outgoing assembly at Cable vault for connecting outgoing cable etc suitable for 3 phase supply	4	Set
V	Armoured LT PVC insulated FRLS Cable between LT MCC & controller panel and between Controller panel & rectifier transformer - for PH-1 as per list attahced	4	Set
VI	Armoured LT PVC insulated FRLS Cable between LT MCC & controller panel and between Controller panel & rectifier transformer - for PH-2 as per list attahced	4	Set
VII	Supply of Various networking items for Remote controlling from Main plant control room (with extisitng controlling ESP system) along with change in software and hardwares, cabling.	4	Set
VIII	Supply of necessary earthing material (25X3 GI flat and 50X6 GI flat), channels, angles, cable trays etc.	2	Lot
IX	One no. Additional spare item like controller/contactor / fuse / relay / electronic cards / switches / meter / display / communication cables / resistors / LED / switch fuse unit / auxiliary relays / diodes / protective devices etc. of each type / make / rating which is part of new field control panel for 3ph transformer	2	Set
X	Supply of Field controller panel (TRCC Panel) along with latest Controller having local & remote control facility & ERM/CRM motor control for control of existing 2 phase transformer (repalcement of existing TRCC)	36	No.
XI	One no. Additional spare item like contactor / fuse / relay / electronic cards / switches / meter / display / communication cables / resistors / LED / switch fuse unit / auxiliary relays / diodes / protective devices etc. of each type / make / rating which is part of supplied field control panels for 2 phase transformers	4	No.
XII	Fire proof ceiling type -A under the control panels in sqmeter	90	Sqm
XIII	Supply & installation of entire Remote Monitoring and control system to control each and every ESP field from main plant control room in Phase-II which includes supply of latest version computer with LED monitor (23 inch), required software / hardware and networking components, network switchges of D-Link make, other components of reputed make, cabling (for all 8 fields x 2 Pass x 2 Unit (Unit 3 &4), communication cable is 4P x 0.5	1	No.

	twisted pair armoured screened copper cable (tentative communication cable requirement 400 + 400 + 250 = 1050M plus communication cable required in between panels 4 x 10M = 40M hence total requirement is 1090M) of reputed make		

Supply Portion Price Schedule format for Electrical Items- **Non SoR | TABLE # Q2**

Sr. No.	Item Description	Total to be Supply (Qty) (A)	UoM	Unit Rate Per UOM (B)	Total (C = A x B)	GST Rate (%)	GST Amount (Rs.) (D)	Total Amount (Incl. GST) (C+D)
I	Elect Item I	8	Nos.	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item >*		
II	Elect Item II	8	Nos.	*<Amount to be Quote by bidder>*				
III	Elect Item III	4	Nos.	*<Amount to be Quote by bidder>*				
IV	Elect Item IV	4	Set	*<Amount to be Quote by bidder>*				
V	Elect Item V	4	Set	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		
VI	Elect Item VI	4	Set	*<Amount to be Quote by bidder>*				
VII	Elect Item VII	4	Set	*<Amount to be Quote by bidder>*				
VIII	Elect Item VIII	2	Lot	*<Amount to be Quote by bidder>*				
IX	Elect Item IX	2	Set	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		
X	Elect Item X	36	Nos.	*<Amount to be Quote by bidder>*				
XI	Elect Item XI	4	Nos.	*<Amount to be Quote by bidder>*				
XII	Elect Item XII	90	Sqm	*<Amount to be Quote by bidder>*				
XIII	Elect Item XIII	1	Nos.	*<Amount to be Quote by bidder>*				
Total inc GST for Supply Portion Electrical (Q2)								***D(sum)**

*D : Derive sum based on Quotes from bidders *<Total Inputs from bidder : 13 (column B) +13 (Column "GST Rate")>*

Section-3 Execution Portion-Mechanical + Electrical Break-up –**SoR | TABLE # Q3**

Clause. No.	UOM	Qty.	Part	Estimate Unit rate before T & D per UOM	Total net Estimate beforeT & D	Section for SOR	SECTION for Quote
Clause B1	Per field	9	Part 2 Execution Mechanical Portion	11,34,000	1,02,06,000	3,38,78,375	**SoR** Section 2 / Clause wise Schedule of Rates (SoR) given & Bidder need to quote service charge in % on sum of Clause wise SoR, i.e. Rs. 3,38,78,375 (Mech. Portion) + 28,76, 000 (Elect. Portion) = 3,67,54,375
Clause B2	Per field	3		10,24,000	30,72,000		
Clause B3	Per mobilization per unit	5		7,22,000	36,10,000		
Clause B4	per Field	4		25,48,125	1,01,92,500		
Clause B5	per Field	12		1,39,000	16,68,000		
Clause C1	Per Unit	3		1,56,000	4,68,000		
Clause C2	per Unit	3		1,20,000	3,60,000		
Clause C3	Per mobilization per unit	6		1,50,000	9,00,000		
Clause C4	Service clause wise	1		24,05,875	24,05,875		
Clause C5		1		9,96,000	9,96,000		
Clause D1.2	Per Transformer	4	Part 2 Execution Electrical Portion	1,64,000	6,56,000	28,76,000	
Clause D2.2		4		1,60,000	6,40,000		
Clause E1.2	Per Controller	16		42,500	6,80,000		
Clause E2.2		20		45,000	9,00,000		
Total (A)						3,67,54,375	
Service Charge in %, to be quote by Bidder						X % on (A)	
Service Charge in Rs., derived based on (B)						[(A) x (X%)] / 100%	
Total Without GST (C=A+B)						(A)+ (B)	
GST in %, to be quote by Bidder						G % on (C)	
GST in Rs., derived based on (D)						[(D) x (G%)] / 100%	
Total With GST in Rs. (C+D)						(C) + (D)	

Quote Summary:

Sr. No.	Table Reference	Description	Total Quote including GST (Rs.)
1	**Table Q1.1**	**Section-1 Supply Portion-Mechanical- Non SoR**	
2	**Table Q1.2**	**Section-1 Supply Portion for Dummy field revival- Non SoR**	
3	**Table Q2**	**Section-2 Execution Portion Electrical- SoR**	
4	**Table Q3**	**Section-3 Execution Portion (Mechanical + Electrical- SoR**	
Grand Total including GST			

Detail Scope of work
Supply of internals
Part-A3/ Clause A3
Supply of spares dummy Field revival of Unit#1's & Unit#2's first fields
[Total 4Nos]

Schedule of Fields:
Unit #1: Field 7A & 7B | Unit #2: Field 7A & 7B | 400mm Pitch Design

- Supply of spare to GIPCL site: Vendor will supply all internals spare parts required for replacement of the field as mentioned in the **"ScheduleA1.3"given** below. Supply of spare also including transportation from their works to GIPCL as per standard and safe transportation procedure without any damage/bend.
- Inspections need to carry out by GIPCL engineer in charge at contractor`s workshop. Contractor need to intimate progress of production at each stage of process to GIPCL. GIPCL will depute their representative for inspection. in case purchaser/GIPCL`s representative fails to attend inspection of the materials within 10 days of notice, deemed approval shall be considered to dispatch the materials.
- Joint Inspection at site after receipt of spare: Joint inspection of spares received at site will be carried out and if any parts observed defective will be rejected.
- PMI will be conducted at random after receiving the material at GIPCL site through external agency and result of the same shall remain binding to both.
- GIPCL reserves the right to get the material verified through government approved laboratory and result of the same whall remain binding to the contractor.
- Internal`s shifting within plant: Will be in the scope of contractor.

Schedule A3 [Scope of Supply], Refer along with schedule A3-M [Tentative list of spare] and Electrical supply schedule A3-E					
Sr. No.	**System Description**	**Material Description**	**Actual Requirement per Field**	**Actual requirement for 2 field**	**UOM**
A	**MECHANICAL SYSTEM**				
A1	**Emitting electrode system:**		1	2	Set
A1.1	Emitting electrode system:	Emitting electrode main frame	1	2	Set
A1.2		Emitting electrode sub frame	1	2	Set
A1.3		Emitting Electrodes	1	2	Set
A1.4		Support insulators and surrounding Accessories	1	2	Set
A1.5		Suspension rod along with support insulator & his electrical heater, screen tube , supporting flange , supporting bracket, locking washer, adjustment screw with rope and other CAF sealing membrane	1	2	Set
A1.6		Insulator Housing with closing cap , MHD , heaters	1	2	Set
A1.7		TR set with all surrounding structure, wheels, HV duct , fasteners, CU tubing ,other accessories as per electrical scope of work	1	2	Set
A2	Collecting electrode system:	Collecting electrode ,suspension frame for collecting electrodes, U clamps, shock bars, shock bar angle ,U clamp guide, connecting strips , box beam , washer plates , fasteners , shock pad , shock bar guide along with attachment and ridge support	1	2	Set
A3	Rapping system:	Rapping shaft, sleeve, hammers ,fasteners , plain bearing/ fixed bearing , bearing support , seams , pin wheel, thrust bearing, vertical shaft bearing, set rings, ERM/CRM gear motor , pinion , coupling , clutch, shaft end connection , carbon bush , structure like bracket assemblies, bearing's cantilever support and required support along with all connected accessories like Shaft heater ,ER housing	1	2	Set

B	**ELECTRICAL SYSTEM:**		1	2	Set
B1	Refer Annexure A3-E	3-Phase-High voltage transformer rectifier (HVR) with electronic controller (EC) with relevant auxiliaries	1	2	Set
B2		Auxiliary control panel (ACP) with relevant auxiliaries	1	2	Set
B3		Disconnecting switch with relevant auxiliaries	1	2	Set

Vendor should consider all required spare for filling dummy field of BHEL make ESP as a part of supply package will be in the scope of vendor.

The total scope of supply of spare is to deliver all required spare (with highest quality) to fill dummy field of BHEL make ESP hence ***Interested vendor shall visit the site invariably to understand the scope in detail, view drawings and the clarify the matter if required prior submitting the bid***.

Bidder should quote service charge as a percentage of estimation considering total actual required spare to fill dummy field of BHEL make ESP and submit the bill of material in blank format schedule tagged as “Actual Bill of material “given in annexure section of tender document without price during technical bid.

Schedule A3-M : Tentative list of spare required for dummy field revival

Sr. No.	Material Description	Per Field	2 Field	4 Field
1	Collecting electrodes Carton steel 1.25 mm thick	204	408	816
2	U clamp	510	1020	2040
3	M12 X 50 ,with 2 washer, 1 spring washer & nut	204	408	816
4	M12 X 40,with 2 washer, 1 spring washer & nut	408	816	1632
5	Washer plate 8 x 70 x 100	816	1632	3264
6	Emitting Electrodes	1782	3564	7128
7	SHOCK BAR WITH SHOCK PAD & FASTENERS	34	68	136
8	Shaft end	1	2	4
9	Shaft 1	1	2	4
10	Shaft 2	1	2	4
11	Shaft 3	1	2	4
12	Sleeve tube	3	6	12
13	CRM outer arm	34	68	136
14	Inner arm	34	68	136
15	HT HEX BOLT,M16X100MM	34	68	136
16	Plain Bearings	8	16	32
17	Set ring	4	8	16

Sr. No.	Material Description	Per Field	2 Field	4 Field
18	Shaft end Top	1	2	4
19	Shaft-1 (Top)	1	2	4
20	Shaft-2 (Middle)	1	2	4
21	Shaft-3 (Bottom)	1	2	4
22	Pin wheel -1	2	4	8
23	Pin wheel -2	2	4	8
24	Bearing V shaft	5	10	20
25	Thrust bearing	1	2	4
26	Shaft 1	1	2	4
27	Shaft 2	1	2	4
28	Shaft 3	1	2	4
29	Sleeve tube	2	4	8
30	ERM outer arm	42	84	168
31	Inner arm	42	84	168
32	HT HEX BOLT,M16X100MM	42	84	168
33	Plain Bearings	12	24	48
34	Set ring	4	8	16
35	Screen tube EERM	1	2	4
36	Screen tube Support Insulator	4	8	16
37	Shaft insulator	1	2	4
38	Support Insulator	4	8	16
39	Shock bar guide -Rapp side (Set)	1	2	4
40	Shock bar guide -Rapp side (Set)	1	2	4
41	Suspension frame CE	34	68	136
42	Emitting Electrodes frame/sub frame	1	2	4
43	Suspension rod surrounding relevant accessories	4	8	16
44	Stretching tool for EE /J bolts, support insulator set. spanner	In Sufficient quantity		
45	All required parts but not mention in table above like structure, box beam, bracket assembly, bearing support CERM EERM, diagonal stay, staircase etc..	1 lot	2lot	4lot
46	Electrical package	Refer Schedule A3-E		
47	Other Required parts which are not mentioned in list above but actually required for healthy working of ESP field including local/remote protection/ button in line with other field .	In Sufficient quantity		

M/s GIPCL have made a genuine attempt to furnish the detail pertaining to required spares for dummy field revival to the extent possible. Schedule A3-M should not be treated as exhaustive list. While quoting, party shall taken in to

consideration supply of all required spare for filling dummy field of BHEL make ESP as a part of supply package .After e-Reverse auction and deriving final cap value for work order for clause A1.3, vendor need to submit billing break-up for approval of GIPCL. Approved billing break-up will be only for billing purpose , however actual scope of supply is inline with tender specification only.

Schedule A1.1E Estimate for procurement of Electrical Items for one no. ESP fields:		
SR. No.	**Item required**	**Qty**
1	Three Phase High Voltage Rectifier transformer oil filled with rectifier stack and complete assembly as per GIPCL approved make	1 no.
2	Field controller panel as per GIPCL approved make	1 no.
3	415V LT module at LT MCC 400A, Siemens make along with supply of outgoing sleeved bus bar and incoming bus contacts from vertical dropper for getting three phase supply, incoming / outgoing sleeved bus bar inside LT module	1 Set
4	Armored LT XLPE insulated AL Cable between LT MCC & BAPCON panel - 3 - 3CX150	170m
5	Armored LT XLPE insulated Cable between BAPCON panel & rectifier transformer - (1) 3 - 3CX150 - 3*170m AL cable (XLPE Insulated) (2) 1 - 12CX2.5 Copper cable (PVC Insulated) (3) 1 - 4CX1.5 ARMOURED SCREENED COPPER CONTROL CABLE (PVC Insulated) (4) 1- 4C X 1.5 CU ARMOURED SCREENED CABLE FOR SERIAL COMMUNICATION (PVC Insulated) (5) ANY OTHER CABLES AS REQUIRED	1 Lot
6	Armored LT PVC insulated Copper Cable requirement (1) ACP to HH JB - 3CX10 (2) HH JB to heater - 2CX4 (3) heater to heater - 2CX4 (4) ACP TO CERM JB -2-3C X 2.5 (5)JB TO SSPB OF CERM - 2-3C X 2.5 (6) ACP TO EERM JB -2-3C X 2.5 (7)JB TO SSPB OF EERM - 2-3C X 2.5 (4) JB for hopper thermostat to hopper thermostat - 3CX2.5 (5) ACP to shaft insulator heater JB - 3CX2.5 (6) shaft insulator heater JB to heater and heater to heater - 2CX2.5 (7) ACP to support insulator heater JB - 3CX16 (8) support insulator heater JB to support insulator heater - 2CX2.5 (9) ALI JB to ash level indicator - 3CX2.5 (10) ACP to ALI JB - 7CX2.5 (11) ACP TO EC PANEL FOR ALI HIGH TRIP -3C X 2.5 (12)ACP TO RCP FOR CERM -1-3CX2.5 (13) ACP TO RCP FOR EERM -1-3CX2.5	1 Lot

	(14) ACP TO RCP FOR CERM ON/OFF FEEDBACK -- 4C X 1.5 SQ. MM SC. CU CABLE (15)ACP TO RCP FOR EERM ON/OFF FEEDBACK -- 4C X 1.5 SQ. MM SC. CU CABLE 16) ANY OTHER CABLES AS REQUIRED	
7	Heating element for shaft insulator (total 3 nos.) of Escorts make along with Heater JB	1 set
8	Heating element for support insulator (total 3 nos.) of Escorts make along with Heater JB	1 set
9	Thermostat (total 04 nos.) of Siemens make along with JB	1 set
10	Geared motor for collecting rapping: PBL make Geared motor 0.33HP, 1.1 RPM, 73B-32.1K-D71K4-A-B3, 0.26KW, Bharat Bijlee make, FL Amp 0.9, 1370 RPM with gear box or New Geared motor assembly shall be interchangeable with existing system with adjustment in base frame, if needed.	1
11	Geared motor for emitting rapping: PBL make Geared motor 0.33HP, 0.26KW, Bharat Bijlee make, FL Amp 0.9, 1370 RPM with gear box, 1st Pair H.A. 25 degree vertical mounting, Gear Box - 0.33HP, 2.5 RPM or New Geared motor assembly shall be interchangeable with existing system with adjustment in base frame, if needed.	1
12	ALI high indication	1 no.
13	ALI low indication	1 no.
14	Supply of necessary earthing material (25X3 GI flat and 50X6 GI flat)	1 Lot
15	Contractor shall consider 3 Ph TR cum rapper controller of approved make / approved Vendors.	1
16	**Supply of various cable trays size 300mm, 150mm, 100mm along with cable tray GI supports**	1 Lot As per site requirement
	P.T.O for Notes	

Notes

*** Cable length given is tentative. Bidder to visit our site for physical verification before quote**

*** New items like field transformer, Field Control panel, LT module, ERM/CRM, Heating Elements etc. should be equivalent or better, Further LT module must be suit as per existing switch gear**

*** Bidder to submit their single phase and three phase electrical power requirement required during execution of contract at site. Please note that we have 415V three phase three wire systems.**

*** We have certain permanent lighting system for ESP areas. Over and above any necessary illumination if required at site shall be in Bidder scope.**

*** All power cables to be supplied shall be XLPE insulated. Before cable procurement, technical data sheet of cables to be supplied shall be submitted to GIPCL for approval purpose. Likewise, Before procurement of all electrical items,**

technical data sheet and vendor details shall be submitted to GIPCL for approval purpose and make should be in line with recommended in tender specification
*** Drawings submitted should be part of tender document.**
*** Cable should be supplied as per GIPCL approved vendor list only.**
***3-Phase Transformer and controller of supply package must be of following make :**

• **Hind Rectifier**	**T&R**	**ABB Vadodara**
• **BHEL**	**M/s Kraft power con**	**Ms G.E.**

However vendor should submit performance certificate for similar application (of ESP) from any customer as a part of technical bid for both 3 phase-transformer as well as controller.

Technical specification for collecting electrode **FOR ESP TYPE FAA-6 X 45 (45)-132-135-2**:

(1) Nominal height of Collecting electrode plate: 13560mm
(2) Nominal width of collecting electrode : 750 mm
(3) Corten steel Grade-A as per latest BHEL standard for collecting electrode for Corten steel. However any improvement in profile/rib strengthening keeping interchangeability /fitment with BHEL standard is accepted subject to prior approval.
(4) Collecting electrode thickness: 1.20 mm (+/- 0.02)
(5) Cross sectional shape for collecting electrode as given in Section N-N:

Chemical Composition of CE (Finished Product)		
Element	**Min**	Max.
C	0	0.12
SI	0.25	0.75
Mn	0.2	0.5
P	0.07	0.15
S	0.000	0.035
Cr.	0.30	1.25
Cu	0.25	0.55
Ni	0.00	0.65

Raw steel suppliers are must be of Ms Bhusan Steel / Ms Jindal Steel / Ms Essar Steel / Ms Nippon steel / Ms Tata Steel / Ms SAIL / MsRINL /Ms VIZAG make.

Technical specification for emitting electrode FOR ESP TYPE FAA-6 X 45 (45)-132-135-2:

(1) Emitting electrode type: Spiral with hooks
(2) Emitting electrode size: 2.7 mm dia.
(3) Emitting electrode material: 904 L

Chemical Composition of EE (Finished Product)		
Element	**Min**	Max.
Mn	0.00	2.00
Cr.	19.00	21.00
Cu	1.20	2.00
Mo	4.00	5.00
Ni	24.00	26.00
Fe (Balance)	48.00	50.00

Refer drawing reference in annexure

Clause-A1 & A2:

Supply: Supply of spares for replacement of all (or in partial) working internals ESP Fields of Unit 1 to 4.

Part A1 Supply of spares for field replacement of Unit 1 &2 (PH1) as per detail scope of work.

Part A2 Supply of spares for field replacement of Unit 3 &4 (PH2) as per detail scope of work.

Schedule of Fields:

Phase#1: Unit #1 & 2: 9 Fields Part A1 / Clause A1

Phase#2: Unit #3 & 4: 3 Fields Part A2 / Clause A2

- Supply of spare to GIPCL site: Vendor will supply all internals spare parts required for replacement of the field as mentioned in the **"Schedule A1 & Schedule A2"** given below. Supply of spare also including transportation from their works to GIPCL as per standard and safe transportation procedure without any damage/bend.

- inspections need to carry out by GIPCL engineer in charge at contractor`s workshop. Contractor need to intimate progress of production at each stage of process to GIPCL. GIPCL will depute their representative for inspection.

- Joint Inspection at site after receipt of spare: Joint inspection of spares received at site will be carried out and if any parts observed defective will be rejected.

- Internal`s shifting within plant: Will be in the scope of contractor.

Schedule: A1

Serial No.	Item Code	Description of parts	Per field	UOM	No of field	Quantity
1	710802038	Collecting electrodes Carton steel, Corton steel (1.2 mm) Grade-A	258	No.	9	2322
2	710801032	U clamp	430	No.	9	3870
3	710801039	Washer plate 8 x 70 x 100	1032	No.	9	9288
4.1	150105020	HT 10.9 Fastener : 150105020:M12 X 50 ,with 2 washer, 1 spring washer , & nut	258	No.	9	2322
4.2	150105019	HT 10.9Fastner:1 50105019 M12 X 40,with 2 washer, 1 spring washer , & nut	516	No.	9	4644
5	710117001	Emitting Electrodes	2268	No.	9	20412
6	710117002	Support Insulator	4	No.	X	12
7	710801058	G Clamp	430	No.	9	3870

Technical specifications for collecting electrode FOR ESP TYPE FAA-6 X 45 (45)-132-135-2:

(1) Nominal height of Collecting electrode plate : 13560 mm

(2) Nominal width of collecting electrode : 750 mm

(3) Material: Carton steel **Type-A** As per latest BHEL standard for **collecting electrode**

(4) Collecting electrode thickness: 1.2 mm (+/- 0.02)

(5) Cross sectional shape for collecting electrode as given in Section N-N:

Chemical Composition of CE (Finished Product)		
Element	**Min**	Max.
C	0	0.12
Sl	0.25	0.75
Mn	0.2	0.5
P	0.07	0.15
S	0.000	0.035
Cr.	0.30	1.25
Cu	0.25	0.55
Ni	0.00	0.65

Technical specification for emitting electrode FOR ESP TYPE FAA-6 X 45 (45)-132-135-2:

(1) Emitting electrode type: Spiral with hooks

(2) Emitting electrode size: 2.7 mm dia.

(3) Emitting electrode material: 904 L

Chemical Composition of EE (Finished Product)		
Element	**Min**	Max.
Mn	0.00	2.00
Cr.	19.00	21.00
Cu	1.20	2.00
Mo	4.00	5.00
Ni	24.00	26.00
Fe (Balance)	48.00	50.00

Schedule A2:

Serial No.	Item Code	Description of parts	Per field	No of field	Quantity
1	710802038	Collecting electrodes Carton steel, Corton steel (1.2 mm) Type-A	204	3	612
2	710801032	U clamp	340	3	1020
3	710801039	Washer plate 8 x 70 x 100	816	3	2448
4.1	150105020	HT 10.9 Fastener :M12 X 50 ,with 2 washer, 1 & nut , check nut	204	3	612
4.2	150105019	HT 10.9 Fastner: M12 X 40,with 2 washer, 1 spring washer & nut, check nut	408	3	1224
5	710117001	Emitting Electrodes	1782	3	5346
6	710117002	Support Insulator	4	x	4
7	710801058	G Clamp	340	3	1020

Technical specifications for collecting electrode **FOR ESP TYPE FAA-6 X 45 (45)-126-135-2**:

(1) Nominal height of Collecting electrode plate: 13560 mm

(2) Nominal width of collecting electrode: 750 mm

(3) Material: Carton steel **Grade-A -**As per latest BHEL standard for **collecting electrode for Carton steel**

(4) Collecting electrode thickness: 1.2 mm (+/- 0.02)

(5) Cross sectional shape for collecting electrode as given in Section N-N:

Chemical Composition of CE (Finished Product)		
Element	**Min**	Max.
C	0	0.12
SI	0.25	0.75
Mn	0.2	0.5
P	0.07	0.15
S	0.000	0.035
Cr.	0.30	1.25
Cu	0.25	0.55
Ni	0.00	0.65

Technical specification for Emitting electrode FOR ESP TYPE FAA-6 X 45 (45)-126-135-2:

(1) Emitting electrode type: Spiral with hooks
(2) Emitting electrode size: 2.7 mm dia.
(3) Emitting electrode material: 904 L

Chemical Composition of EE (Finished Product)		
Element	**Min**	Max.
Mn	0.00	2.00
Cr.	19.00	21.00
Cu	1.20	2.00
Mo	4.00	5.00
Ni	24.00	26.00
Fe (Balance)	48.00	50.00

Schedule: A4 | Part A

Serial No.	Item Code	Description of parts	Quantity
A	2710801044	**RECTANGLE TUBE FOR EE HOOKING FRAME Type-1;** 54MM X 36MM RECTANGLE TUBE FOR EMMITING ELECTRODE HOOKING FRAME WITH WELDED HOOK AT PREDEFINE PITCH,TYPE-1 : SINGLE SIDE HOOK	387
B	2710801045	**RECTANGLE TUBE FOR EE HOOKING FRAME Type-2;** 54MM X 36MM RECTANGLE TUBE FOR EMMITING ELECTRODE HOOKING FRAME WITH WELDED HOOK AT PREDEFINE PITCH ,TYPE-2 : BOTH SIDE HOOK	50
C	2710801050	**EE Sub Frame Vertical pipe; EE Sub Frame Vertical pipe** Emitting electrode Sub Frame Vertical pipe OD 40 mm / ID 36 mm / L 4500mm	387
D	2710802002	**Shock Bar 400 mm pitch inc. shock pad & fastener L5155** SHOCK BAR FOR COLLECTING ELECTRODE RAPPING	68
E	710801034	**Shock bar 300 mm pitch inc. shock pad & fastener L5055** SHOCK BAR FOR COLLECTING ELECTRODE RAPPING	129
F	710801014	**Shaft Insulator**	8

Drawing Attached Annexure-II for 2710801044 + 2710801045
Drawing Attached Annexure-II for 710801034 + 2710802002

Schedule: A4 | Part B | 1 Field of Phase # 1

Serial No.	Item Code	Description of parts	Quantity
1	710802038	Collecting electrodes Carton steel, Corton steel (1.2 mm) Grade-A	258
2	710801032	U clamp	430
3	710801039	Washer plate 8 x 70 x 100	1032
4.1	150105020	HT 10.9 Fastener : 150105020:M12 X 50 ,with 2 washer, 1 spring washer , & nut	258
4.2	150105019	HT 10.9Fastner:1 50105019 M12 X 40,with 2 washer, 1 spring washer , & nut	516
5	710117001	Emitting Electrodes	2268
6	710117002	Support Insulator	1
7	710801058	G Clamp	430

Technical specifications for collecting electrode FOR ESP TYPE FAA-6 X 45 (45)-132-135-2:

(1) Nominal height of Collecting electrode plate : 13560 mm

(2) Nominal width of collecting electrode : 750 mm

(3) Material: Carton steel **Type-A** As per latest BHEL standard for **collecting electrode**

(4) Collecting electrode thickness: 1.2 mm (+/- 0.02)

(5) Cross sectional shape for collecting electrode as given in Section N-N:

Chemical Composition of CE (Finished Product)		
Element	**Min**	Max.
C	0	0.12
SI	0.25	0.75
Mn	0.2	0.5
P	0.07	0.15
S	0.000	0.035
Cr.	0.30	1.25
Cu	0.25	0.55
Ni	0.00	0.65

Technical specification for emitting electrode FOR ESP TYPE FAA-6 X 45 (45)-132-135-2:

(1) Emitting electrode type: Spiral with hooks

(2) Emitting electrode size: 2.7 mm dia.

(3) Emitting electrode material: 904 L

Chemical Composition of EE (Finished Product)		
Element	**Min**	Max.
Mn	0.00	2.00
Cr.	19.00	21.00
Cu	1.20	2.00
Mo	4.00	5.00
Ni	24.00	26.00
Fe (Balance)	48.00	50.00

Schedule: A4 | Part C | 1 Field of Phase # 2

Serial No.	Item Code	Description of parts	Quantity
1	710802038	Collecting electrodes Carton steel, Corton steel (1.2 mm) Grade-A	204
2	710801032	U clamp	340
3	710801039	Washer plate 8 x 70 x 100	816
4.1	150105020	HT 10.9 Fastener : 150105020:M12 X 50 ,with 2 washer, 1 spring washer , & nut	204
4.2	150105019	HT 10.9Fastner:1 50105019 M12 X 40,with 2 washer, 1 spring washer , & nut	408
5	710117001	Emitting Electrodes	1782
6	710117002	Support Insulator	1
7	710801058	G Clamp	340

Technical specifications for collecting electrode FOR ESP TYPE FAA-6 X 45 (45)-132-135-2:

(1) Nominal height of Collecting electrode plate : 13560 mm

(2) Nominal width of collecting electrode : 750 mm

(3) Material: Carton steel **Type-A** As per latest BHEL standard for **collecting electrode**

(4) Collecting electrode thickness: 1.2 mm (+/- 0.02)

(5) Cross sectional shape for collecting electrode as given in Section N-N:

Chemical Composition of CE (Finished Product)		
Element	**Min**	Max.
C	0	0.12
SI	0.25	0.75
Mn	0.2	0.5
P	0.07	0.15
S	0.000	0.035
Cr.	0.30	1.25
Cu	0.25	0.55
Ni	0.00	0.65

Technical specification for emitting electrode FOR ESP TYPE FAA-6 X 45 (45)-132-135-2:

(1) Emitting electrode type: Spiral with hooks
(2) Emitting electrode size: 2.7 mm dia.
(3) Emitting electrode material: 904 L
Combine Supply Scope of work :

Chemical Composition of EE (Finished Product)		
Element	**Min**	Max.
Mn	0.00	2.00
Cr.	19.00	21.00
Cu	1.20	2.00
Mo	4.00	5.00
Ni	24.00	26.00
Fe (Balance)	48.00	50.00

Combined Supply Schedule| A1 | A2 | A3 | A4 | Mechanical Supply Portion

Serial No.	Item Code	Quantity Schedule A1	Quantity Schedule A2	Quantity Schedule A4 Part B	Quantity Schedule A4 Part C	Quantity Schedule A4 Part A	Quantity Schedule A3	Total	UOM
1	710802038	2322	612	258	204	Not Applicable	Not Applicable	3396	Nos.
2	710801032	3870	1020	430	340			5660	Nos.
3	710801039	9288	2448	1032	816			13584	Nos.
4.1	150105020	2322	612	258	204			3396	Nos.
4.2	150105019	4644	1224	516	408			6792	Nos.
5	710117001	20412	5346	2268	1782			29808	Nos.
6	710117002	12	4	1	1			18	Nos.
7	710801058	3870	1020	430	340			5660	Nos.
A	2710801044	Not Applicable				387		387	Nos.
B	2710801045					50		50	Nos.
C	2710801050					387		387	Nos.
D	2710802002					68		68	Nos.
E	710801034					129		129	Nos.
F	710801014					8		8	Nos.
Supply of Dummy field revival (Refer Scope of supply Clause A1.3 Mechanical + Electrical)							**4 Field**	**4 Field**	**Set/lot**

Execution of Work
Clause B4
Execution of dummy field revival of Unit#1 and 2's first fields [Total 4Nos.]
Execution of Mechanical / electrical / civil work including mobilization

Execution of dummy field revival fields in Unit 1 & 2

: Mobilization of Resources for Unit 1 & 2 ESP Overhauling Work separately/ independently:

Mobilize the necessary manpower (include Skilled/unskilled workmen, Execution supervisors, Store in charge, site in charge) along with necessary tools ,tackles etc to carry out the ESP field replacement work in unit 4 separately . It include mobilization of all materials (except specified free issue materials by GIPCL), consumables, Special tools for ESP Field Alignment (I.e. J Bolts , Support insulator nut spanner, Emitting Electrode stretching tool….) equipments, tools & tackles, machineries(includes Welding machine, Gas cutting set , Cutting torch, Heating torch) safety parts/sub part of manpower & materials, standard industrial safety PPEs. It also consisting skilled supervisor, skilled technicians, skilled riggers, Welders, gas cutters and helper in sufficient quantity to carry out the work. Mobilizations of resources also include telescopic crane (of suitable load bearing capacity, suitable boom length and suitable radius as per site requirement, if required), crane, pulley block, Winch machine. The route for travelling of crane within plant should be predefined and corrective action to clear the path will be carry out before mobilization of plant will be in the scope of contractor.

ESP FIELD REVIVAL WORK:

The work should be divided in two activities

(1) Pre-Shut down activities including **(1a)** Pre execution/shutdown visit

(2) Shut down activity

(1) Pre-Shut down activities including Pre execution/shutdown visit:

It broadly includes arrangement for replacement of collecting electrode of ESP fields. For this you have to remove the top shed of ESP, removal of top cover plate of ESP penthouse. Making and arrangement for material handling i.e. making derrick for inserting new plates on ESP top roof, shifting of new collecting electrode (CE) to place, from where vertical shifting of bundle of CE initiated. Shifting of CE from ground to ESP roof plate, stacking CE to roof properly. Fixing of U clamp on CE plates. It also includes preparation of CE straightening frame for verification if required. Contractor should specify the minimum time required to carry out pre shutdown activity with necessary tools and tackles along with techno commercial bid without price bid. Contractor must send their site representative / site in-charge /site supervisor for Pre execution/shutdown site visit before shutdown to assist preparation work at site.

(2) Shutdown activity:

1. Ensure the mechanical and electrical isolation of surrounding ESP fields.

2. Open all manhole door and earth all the surrounding fields
3. Carry out the water washing as per applicable **Clause from OH section (Section C4/C5)**
4. Inspect casing of dummy field including funnel/funnel corner for any leakage / air ingress and submit detail report after inspection of casing through mail clearly mention the leakage detail.
5. Comprehensive cleaning/ scrapping of casing need to be carried out.
6. Assist pressurising test to identify leakage of casing also
7. Cut the ESP top roof plate (both layer) as per requirement of appropriate size.
8. Scrapping to both wall & access preparation work for thickness measurement work.

Following system / sub system need to be install as a part of scope of work for execution for field revival, All part required to execute below mention work will under scope of section 1.1 explained above

Mechanical systems:

Emitting electrode system:

The most essential part of precipitator is emitting electrode system. This is supported by four insulators. The frames for holding the emitting electrodes are located centrally between collecting electrode curtains. The entire discharge frames are welded to form a rigid box like structure as shown in **Figure-2.** The emitting electrodes are kept taut between the frames as shown in **Figure 1.**

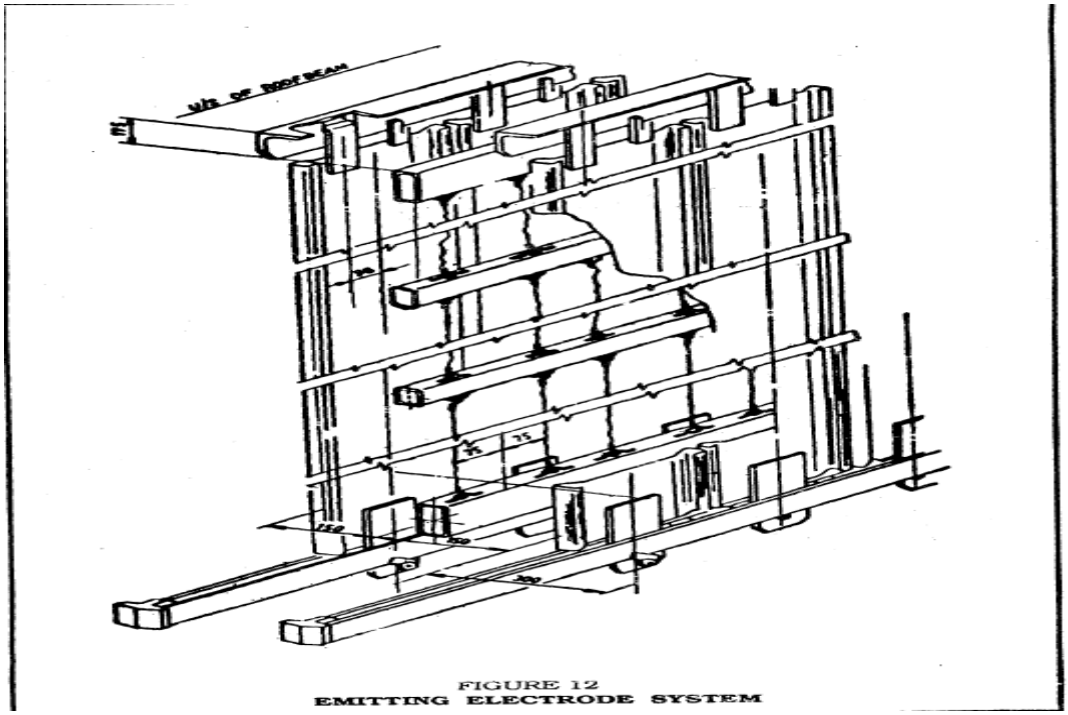


FIGURE 12
EMITTING ELECTRODE SYSTEM

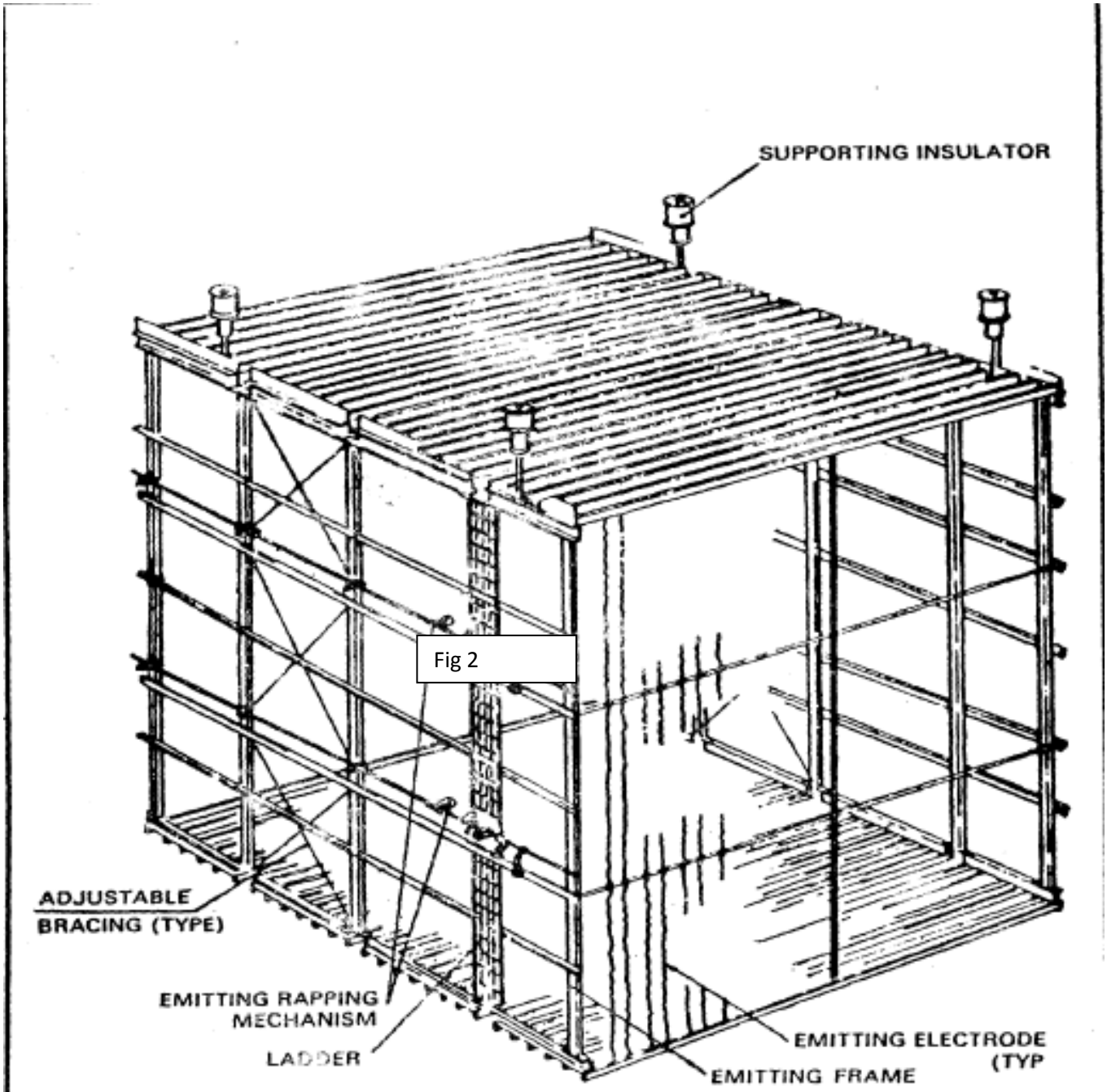


Fig 2

Fig 1

EMITTING ELECTRODE SYSTEM (FRAME WORK)

Vendor need to supply ,Erect, position, alignment and welding/bolting/fixing/clamping emitting electrode frame work system as shown in figure above with standard erection

procedure and gap/distance or other quality parameter or critical dimension considering operation and or erection of ESP will be maintain as per standard practice

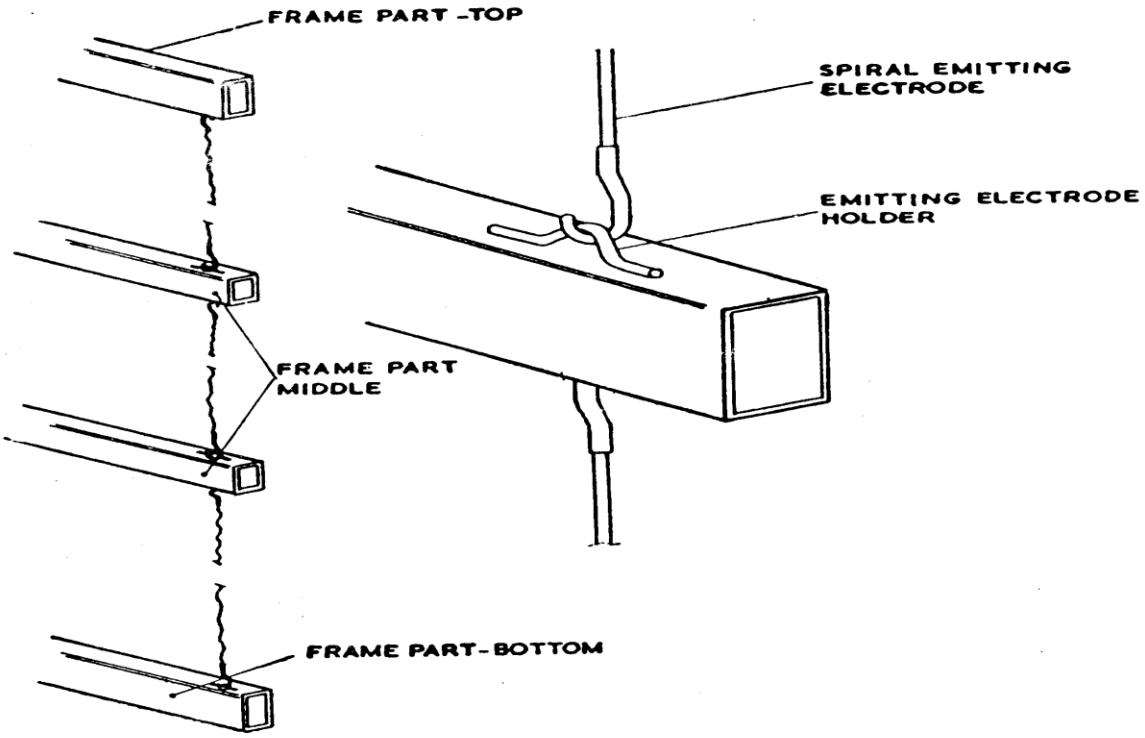


FIGURE 13
EMITTING ELECTRODE SYSTEM

Collecting electrode system:

The collecting plates are made of 1.20-mm carton steel Grade-A and shaped in one piece by roll forming. The collecting electrode has unique profile designed to give rigidity and to contain the dust in a quiescent zone free from re – entertainment. The 400-mm collecting plates are provided with hooks to their top edge for suspension. The hooks engage in the slots of the supporting angles. 750 mm collecting electrodes are provided with slots, which are engaged on the hooks welded on the suspension angles. All the collecting plates in a row are held in position by a shock bar at the bottom. The shock bars are spaced by guides.

Supply, Erect, position, alignment and welding/bolting/fixing/clamping collecting electrode suspension angles, collecting electrodes, U clamps, shock bars, shock bar angle ,U clamp guide, connecting strips , box beam , washer plates , fasteners , shock pad , shock bar guide along with attachment and ridge support with standard erection procedure and gap/distance or other quality parameter or critical dimension considering operation and or erection of ESP will be maintain as per standard practice.

Rapping system:

Rapping systems are provided for collecting and emitting electrodes. Geared motors drive these rappers. The hammers are positioned at an angular displacement of 210 degree / 195 degree for collecting rapping mechanisms of 300 mm pitch / 400 mm pitch respectively. For the emitting electrode the same is positioned at 240 degree. The rapping system employs tumbling hammers, which are mounted on a horizontal shaft. As the shaft rotates slowly the hammers tumble on to the shock bar/shock beam which transmits the blow to the electrodes. One complete revolution of the rapping shaft will clean the entire field. The rapper programmer decides the frequency of rapping. Rapping frequency chart is given in this manual. The tumbling hammer disposition and the periodicity of rapping are selected in such a way that less than 2 % of the collecting area is rapped at any instance. This avoids re-entertainment of dust and puffing at the stack. The rapping shaft of emitting electrode system is electrically isolated from the geared motor drive by a shaft insulator. The space around the shaft insulator is continuously heated to avoid condensation.

Supply, erect , position , alignment and welding/bolting/fixing/clamping Rapping shaft, sleeve, hammers ,fasteners , plain bearing/ fixed bearing , bearing support , seams , pin wheel, thrust bearing, vertical shaft bearing, set rings, ERM/CRM gear motor , pinion , coupling , clutch, shaft end connection , carbon bush , structure like bracket assemblies, bearing's cantilever support and required support along with all connected accessories with standard erection procedure and gap/distance or other quality parameter or critical dimension considering operation and or erection of ESP will be maintain as per standard practice.

Insulator housing:

The support insulators, supporting the emitting electrode system are housed in insulator housing. The HV DC connection is taken through a bushing insulator mounted on the insulator-housing wall.

In order to avoid the condensation on the support insulators, each insulator is provided with

one electrical heating element. Heating elements of one pass are controlled by one Thermostat. Erect , position , alignment and welding/bolting/fixing/clamping parts mention in drawing below with standard erection procedure and gap/distance or other

quality parameter or critical dimension considering operation and or erection of ESP will be maintain as per standard practice.

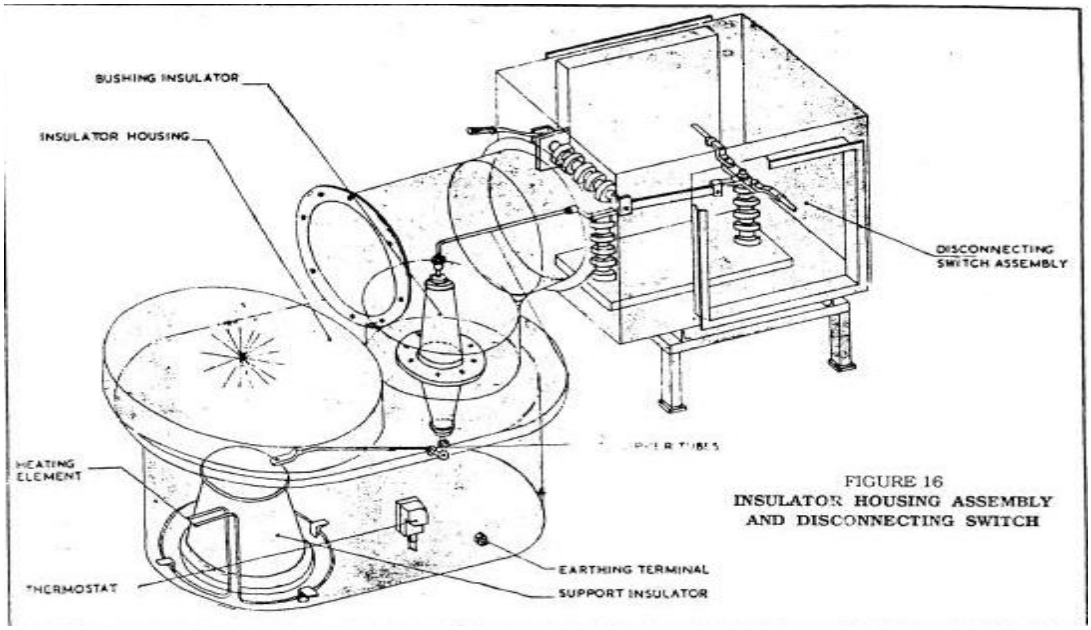
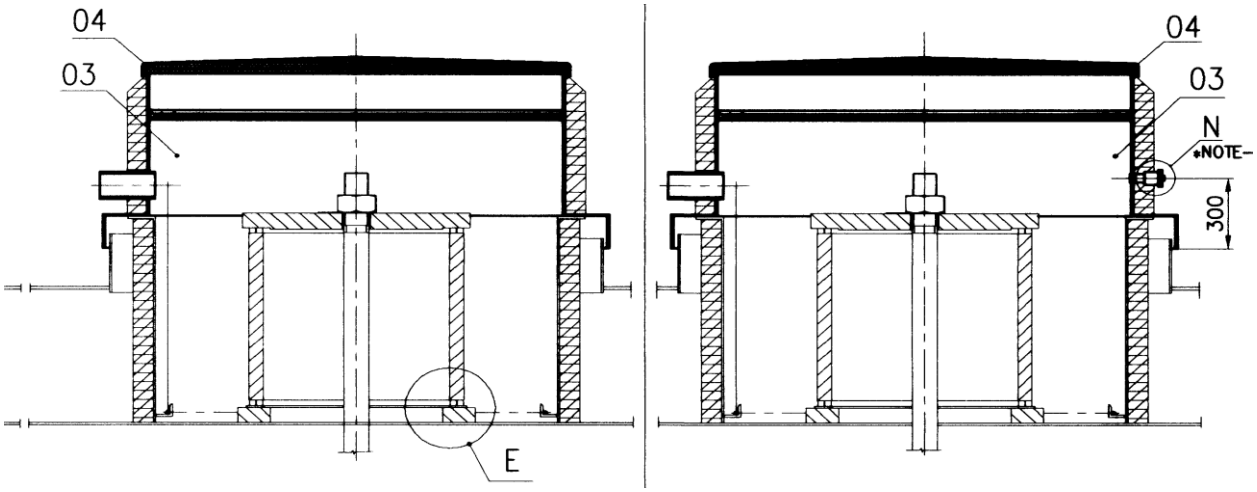


FIGURE 16
INSULATOR HOUSING ASSEMBLY AND DISCONNECTING SWITCH

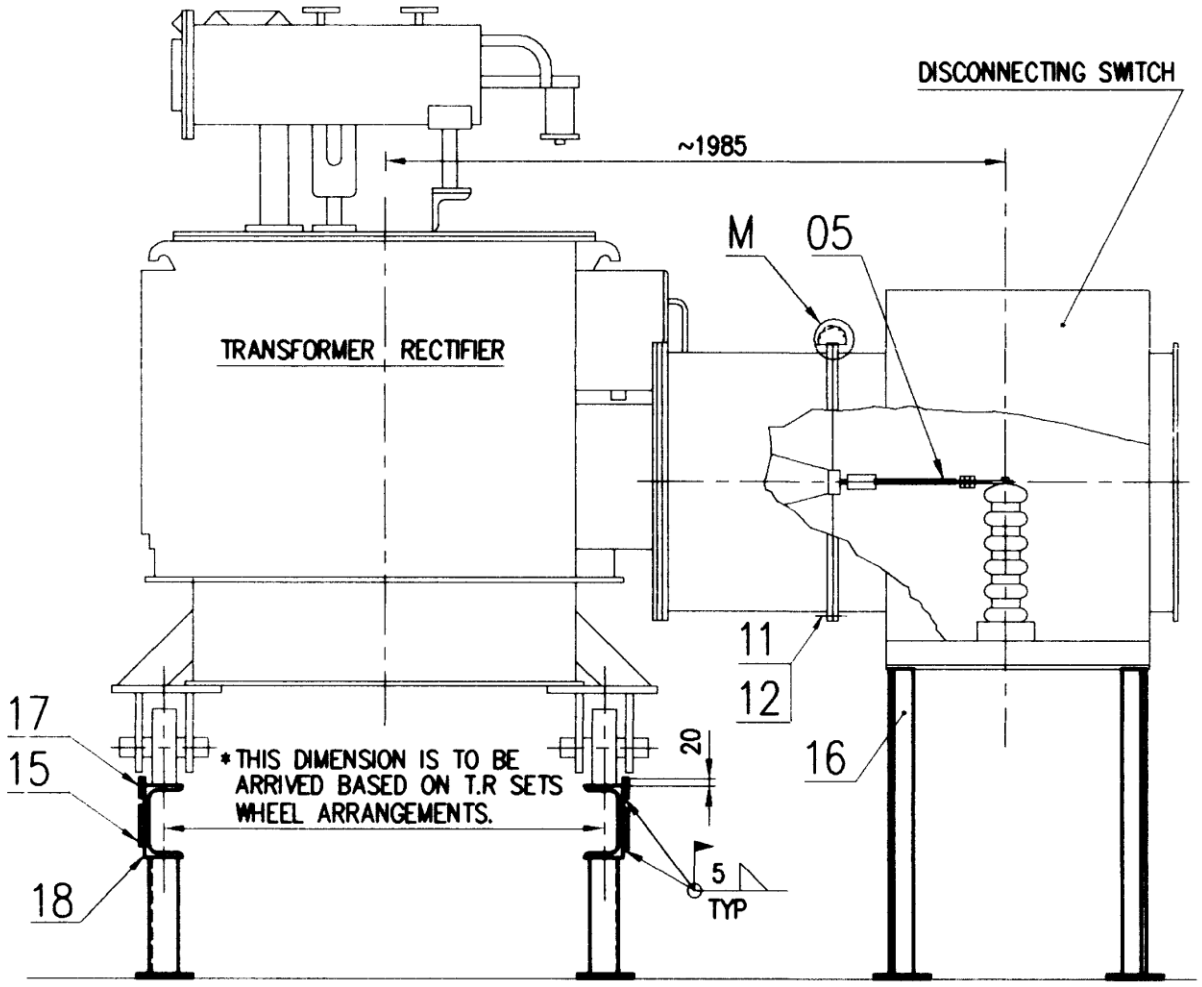
Also for all four support insulator erect, position , alignment and welding/bolting/fixing/clamping support insulator with duct along with auxiliaries like supporting flange , supporting bracket, screen tube, locking washer, adjustment screw with rope and other CAF sealing membrane parts and suspension rod along with other all other accessories, round door , seal door with **interlock to be erect and commission with standard erection procedure** and gap/distance or other quality parameter or critical dimension considering operation and/or erection of ESP will be maintain as per standard practice.



- Install collecting electrode suspension frame supplied against Clause No. 1/Section C4 and weld the same as per standard ESP erection procedure.

- Check and verify the pitch of affected collecting electrode suspension frame (hook to hook).If found defected, rectify the same.
- Erect scaffolding in both the hopper of field for approaching the shock bar, shock bar guide. If required for replacement of internals.. (Scaffolding material will be in the scope of contractor) Size of hopper is 6.8m x 6.6m at top and 0.4m x 0.4m of conical shape and height is 8 m.
- Erect , position , alignment and welding/bolting/fixing/clamping /Install collecting shaft, inner arms, outer arms plain bearing & fix bearing,
- Erect , position , alignment and welding/bolting/fixing/clamping /Install emitting electrode horizontal shaft (at two elevation), inner arms, outer arms plain bearing & fix bearing,
- Erect , position , alignment and welding/bolting/fixing/clamping /Install emitting electrode vertical shaft arrangement, pin wheel-1, pin wheel-2 ,bearings, thrust bearings, screen tube , shaft insulator , grip coupling ,carbon bush.
- Erect , position , alignment and welding/bolting/fixing/clamping /Install Check the emitting electrode frame/sub frame.
- Put the new collecting plates in position. Fit new shock bar. Fix the collecting plates in each row in U clamp. Tighten the fasteners between shock bar & collecting plate by Torque wrench and tag weld its nut with bolts.
- Fix the new emitting electrode only by stretching tool.
- After complete installation of emitting electrode & collecting plate do alignment of field for gap. Ensure that the gap between collecting plate and emitting electrode for each row should be equal to critical dimension allowed by Go/No go gauge.
- Erect, position, alignment and welding/bolting/fixing/clamping /Install shaft insulators & support insulators. The lifting tool required for support insulator removal is in Contractor’s scope.
- Joint inspection carried out for checking gap between CE & EE at all points of field. If defect observed regarding critical gap between CE & EE, will be rectifying immediately. External casing plate inspection also need to be carry out by contractor and if external casing plate found defective for air ingress it need to be point out immediately .
- Contractor shall cover combine guarantee for material of spare supplied, execution of field erection & commissioning all eight fields.

Install TR set with all surrounding structure, wheels, HV duct , fasteners, CU tubing ,other accessories as per electrical scope of work along with other accessories supplied by contractor against Electrical Supply Schedule as following.



ELECTRICAL SYSTEM:

1. High voltage transformer rectifier (HVR) with electronic controller (EC)

The transformer-rectifier supplies the power for particulate charging and collection. The basic function of the EC is to feed the precipitator with maximum power input under constant current regulation. Should there be any flash over between collecting and emitting electrodes, the EC will sense the flash over and quickly react by bringing the input voltage to zero and blocking it for a specific period. After the ionized gases are cleared and the dielectric strength restored, the control will quickly bring back the power to a preset value and raise it to the original non-sparking level. Thus the EC ensures adequate power input to the precipitator while reckoning the electrical disturbances within the precipitator. Regulated AC power from EC is fed to the primary of the transformer, which is stepped up and rectified to give a full wave power output. The transformer-rectifier is mounted on roof of the precipitator while the EC is located in an air-conditioned control room.

Supply, erect , position , alignment and welding/bolting/fixing/clamping above mentioned parts with standard erection procedure and gap/distance or other quality parameter or critical dimension considering operation and or erection of ESP will be maintain as per standard practice described above.

2 Auxiliary control panel (ACP)

The ACP controls the power supply to the EP auxiliary viz. rapping motors and heating elements Dampers, etc. The complete ACP is of modular type with individual modules for each feeder. Each module houses the power and control circuits with meters, push buttons, switches and indicating lamps.

Following are the modules for the outgoing feeders.

- → Hopper heaters for each field
- → Support insulator heaters
- → Collecting electrode-rapping motor for each field.
- → Emitting electrode-rapping motor for each field.

The program control circuit for the sequence and timing of operating for rapping motors is controlled by RAPCON. For continuous operation of the rapping motors, provision is available in all rapping motor modules to operate the rapping motor either in AUTO or MANUAL. Thermal overload relay is provided for overload protection to the rapping motors. Local pushbuttons are available for tripping the motors to meet the exigencies and for maintenance purposes. Ammeters with selector switches to indicate line currents of heating element feeders are provided. Indicating lamps are provided for 'main supply on', 'rapping motor on', 'off' and 'trip', space heater on', and 'control supply on'.

Supply, erect , position , alignment and welding/bolting/fixing/clamping above mentioned parts with standard erection procedure and gap/distance or other quality parameter or critical dimension considering operation and or erection of ESP will be maintain as per standard practice described above.

3 Disconnecting switch

Each field is provided with one disconnecting switch for isolation of emitting system from the associated transformer. In the ON position the emitting system is connected to the transformer and in the OFF position the emitting system is grounded.

Supply, erect , position , alignment and welding/bolting/fixing/clamping above mentioned parts with standard erection procedure and gap/distance or other quality parameter or critical dimension considering operation and or erection of ESP will be maintain as per standard practice described above.

Also ensure following in connection with electrical auxiliaries

Disconnecting switches

Ensure that:

- → Insulators are healthy, clean and rigid.
- → HV bus terminals and earth connections inside are tight.
- → Operation of moving blade with HV and earth contacts is smooth and proper.

→ Copper cable between moving arm and insulator head is properly connected. Each disconnecting switch is provided with a danger plate and two external earth connections to earth grid.
→ Doors are closed tightly.
→ Interlocks provided at doors and handles are working properly.

Insulator housings

Ensure that:

→ Insulators are clean, healthy and rigid.
→ Copper tubes are straight, tight and have sufficient electrical clearance with respect earth and other components such as thermostats and heating elements etc.
→ Heating elements are properly fixed.
→ Earthing is proper.
→ Screw legs and nuts for placement of alignment jigs are welded.
→ Doors are closed tightly.
→ Interlocks are working properly.
→ Each insulator housing is provided with a danger plate and two external earth connections to earth grid.
→ Insulator housing is insulated with thermal insulation.

High voltage bus ducts

Ensure that:

→ Flanged joints are provided with gaskets and eathing cables.
→ Copper tubes are straight and tightly connected.

Heating elements

Ensure that:

→ IR value is above 2M Ohm. (use 500 V Megger only)
→ Continuity is ascertained.
→ Cables are terminated properly with crimped lugs and glands and terminal box cover is watertight.
→ Cable armor and earth points are connected to the earth.

Thermostats (If required):

Ensure that

→ Cables are terminated properly.
→ Cover is watertight.
→ Setting of thermostat is 120° C for hopper heaters and 1400 C for support insulator heaters.
→ Contact continuity is verified.
→ Interconnect start/stop of new heater with existing thermo stat feedback.

Cables and accessories

Ensure that:

→ Cables are connected with correct tag numbers, ferrules, colour-coding etc. as per
the relevant cable schedule/instruction/direction and are terminated properly.
→ Cables are laid and supported properly.

→ Continuity and IR value are verified.

Auxiliary control panel

Ensure that:

→ All components are verified with the bill of materials.

→ IR values are measured and well above 2M ohms.

→ Supply is available at the output terminals of all the feeders. (To be checked after closing the relevant switches and contactors).

→ Contactors relays and lamps are functioning properly.

→ RAPCON is working.

→ Direction of rotation of geared motors corresponds to that of rapping shafts

Contractor shall cover combine guarantee for material of spare supplied, execution of field erection & commissioning all eight fields.

- Close all manhole door opened earlier.
- Normalize the ESP top roof.
- Complete weld the welding joint by E 7018 A1 grade electrode.
- Welding is to be done by certified welders or approved welder by GIPCL only.
- As verification of quality of welding, DP test need to be carry out for 5% of length of weld randomly. If found unsatisfactory corrective action need to be taken by contractor. DP kit to be arrange by contractor
- Replacement of manhole door's rope of CRM, ERM, penthouse & hopper.
- Remove the foreign material accumulated in hopper after rectification work
- Clean the area. Remove the scrap & transfer it to scrap yard as per instructions of E-I/C.
- Assist for Field charge test / Air load test & ensure that all the fields develop required Voltage & ampere after repair/replacement / rectification.

Procedure for AIR LOAD TEST :

Air load test is an important commissioning activity. This test gives the diagnosis of the following:

→ Proper erection and alignment of EP internals as well as the healthiness of attended renovated field.

→ Presence of any left out debries/hanging pieces, which may limit the voltage or short the electrodes.

→ Healthiness of insulators.

→ Healthiness of transformers and electronic controllers.

(i) Preparations

→ Remove all temporary earth connections made with discharge rods.

→ Close all insulator housing, disconnecting switch and inspection doors adopting the interlock sequence and return the key to the electronic controller.

→ Check the IR value of individual fields using 1 KV megger. Meggering shall be done between earth and emitting system at disconnecting switch keeping the moving blade in between the two fixed contacts

(ii) Procedure:

→ Make supply available to ACPs and ECs. Ensure switching on of all heaters 4 hrs. prior to taking up of air load test.
→ Switch on all rapping motors on continuous mode.
→ Keep Intermittent Charge Ratio =1:1 and Im=100% in BAPCON.
→ Switch on EC and slowly raise the current by increasing Is. Note the meter readings
→ for each interval of 50 mA. Raise up to rated current. Look for flashover if any and record.
→ The rapping motors are to be changed to intermittent rapping mode after taking the voltage & current readings.
→ Keep all the fields energised for a period of 8 hours.
→ Switch off the ECs, ACPs and LT board.
→ If the fields are properly erected and aligned, they can be loaded up to the rated current without sparks.

- Normalize the top shed of ESP. Fastener and other related auxiliaries like nut / graphite washer will be in the scope of contractor including supply also.
- Following spares compulsory need to be replaced in field replacement.

Clause B4

<u>Scope of electrical work part for one no. new field:-</u>

- Erection of field rectifier transformer, all heaters, ALI, Field Control panel etc.
- Erection of LT module of 400A in existing LT MSB panel of Siemens / C&S make
- Erection of cable tray as per site requirement
- Cable laying from LT MSB to BAPCON panel, BAPCON panel to transformer, RAPCON panel to Auxiliary control panel, Transformer to BAPCON panel, Auxiliary control panel to respective field location of motors, heaters and ALI etc. All required cabling for erection of complete field is required to be done.
- Earthing job of rectifier transformer, local earthing of heaters, ALI, ERM/CRM etc.
- Testing of ERM/CRM for winding resistance and megger as per instruction of Engineer I/C
- Testing of all heaters for megger and resistance as per instruction of Engineer I/C
- Testing of all cables laid for megger value as per instruction of Engineer I/C
- Oil filtration activity to be carried out for rectifier transformer till required parameters of oil achieved like BDV and moisture content in ppm (minimum 5-6 cycles of filtration is required) as per instruction of Engineer I/C
- Oil leakages in rectifier transformer if any shall also be attended by way of replacement of gasket
- Testing of rectifier transformer for megger, winding resistance, tan delta value as per instruction of Engineer I/C

- Protection checking of rectifier transformer as per instruction of Engineer I/C
- Testing of Field Control Panel panel as per instruction of Engineer I/C
- Open circuit test of field transformer
- Short circuit test of field transformer
- **Consider separate HMI at Unit control room for remote on-line-monitoring of system for two Nos. dummy fields.**

Note : Vendor should supply additional spare in sufficient quantity to allow damage of spare during transportation , missing of spare during handling (like fasteners, U clamps G clamps, washer plates, Emitting electrode in to consideration and record the same during supply, the balance spare parts remain after complete execution will be return to contractor / vendor [Not consider packing material] with record of additional quantity return.

SUPPLY SCHEDULE:

- All the material to be supplied under clause A1 need to supply: Minimum 4 Fields supply within in maximum 8 weeks from date of WO/LOI whichever is earlier. Remaining in line with GIPCL`s intimation as and when basis.
- All the material to be supplied under clause A2 need to supply: All 3 Field supply within maximum 10 weeks from date of WO/LOI whichever is earlier.
- All the material to be supplied under clause A4 need to supply: All Part C Field supply within maximum 10 weeks from date of WO/LOI whichever is earlier. Remaining in line with GIPCL`s intimation as and when basis.
- All the material to be supplied under clause D1.1/D2.1 need to supply: within maximum 12 weeks from date of WO/LOI whichever is earlier.
- All the material to be supplied under clause E1.1/E2.1 need to supply: within maximum 12 weeks from date of WO/LOI whichever is earlier.
- Billing break-up (BBU) required form A3 need to submit within 2 weeks from date of WO/LOI whichever is earlier for approval to GIPCL. Supply will be in line with GIPCL`s intimation as and when basis.
- Advance will be release according to supply schedule . ABG need to submit accordingly.

EXECUTION
Section B
Clause B1 / B2 / B3

Clause B1: Execution for replacement of all/partial working internals ESP Fields of Unit 1 & 2 [per Field replacement for all working internal replacement as given in scope of work.]

Clause B2: Execution for replacement of all/partial working internals ESP Fields of Unit 3 & 4 per Field replacement for all working internal replacement as given in scope of work.

In case partial replacement carried out, following table will govern for billing:

Partial Field replacement Billing schedule :

In Phase-2	Billing	Remarks
If 9 or less than 9 row replacement carried out	33 % of Clause B2 for exact 9 row replacement. Propositional if less that 9 row	Other parts are needed to be install/replace as per actual scope of work. Scope of work will remain same as Clause B2
If greater than 9 but equal or less that 17 row	58 % of Clause B2 for exact 17 row replacement. Propositional if less that 17 row to 10 row	
If greater than 17 but equal or less that 26 row	90 % of Clause B2 for exact 26 row replacement. Propositional if less that 26 row to 18	
If greater than 26 but equal or less that 34 row	100 % of Clause B2 for exact 34 row replacement. Propositional if less that 34 row to 27	

In Phase-1	Billing	Remarks
If 11 or less than 11 row replacement carried out	33 % of Clause B1 for exact11 row replacement. Propositional if less that 11 row	Other parts is needed to be install/replace as per actual scope of work Scope of work will remain same as Clause B1
If greater than 11 but equal or less that 21 row	58 % of Clause B1 for exact 21 row replacement. Propositional if less that 21 row to 12 row	
If greater than 21 but equal or less that 33 row	90 % of Clause B1 for exact 33 row replacement. Propositional if less that 33 row to 22	
If greater than 33 but equal or less that 43 row	100 % of Clause B1 for exact 43 row replacement. Propositional if less that 43 row to 34	

Mobilization for replacement fields in Unit 3 & 4 & Unit 1 & 2 (Clause B3)

: Mobilization of Resources for Unit 3 & 4 & Unit 1 & 2 ESP:

Mobilize the necessary manpower (include Skilled/unskilled workmen , Execution supervisors, Store in charge, site in charge) along with necessary tools ,tackles etc to carry out the ESP field replacement work in Unit 1,2,3 & 4 separately even in case of

overlapping of shutdown or overlapping of Pre-shutdown activity of shutdown to be execute and Post shutdown activity for which shutdown completed.
It include mobilization of all materials (except specified free issue materials by GIPCL), consumables, Special tools for ESP Field Alignment (I.e. J Bolts , Support insulator nut spanner, Emitting Electrode stretching tool, penta house fastener remover , fastener) equipments, tools & tackles, machineries(includes Welding machine, Gas cutting set , Cutting torch, Heating torch) safety parts/sub part of manpower & materials, standard industrial safety PPEs.
It also consisting skilled supervisor, skilled technicians, skilled riggers, Welders, gas cutters and helper in sufficient quantity to carry out the work. Mobilizations of resources also include telescopic crane (of suitable load bearing capacity, suitable boom length and suitable radius as per site requirement, if required), crane, pulley blocks, Winch machines. The route for travelling of crane within plant should be predefined and corrective action to clear the path will be carry out before mobilization of plant will be in the scope of contractor.
Applicability of clause For Mobilization per unit per mobilization
Applicability of clause in case of pass isolation / single pass outage shutdown: it will be considered per unit per mobilization and not per pass. Further In case of single pass outage if both pass provided in single mobilization simultaneously with maximum 4 to 7 days changeover/stabilization period between outage of two pass. Contractor need to execute post SD activity of pass which handed over to operation, Review and attend defect arrive in handed over pass, post stabilization and subject to completion of all pre shutdown activity of remaining pass outage will be given

Execution of replacement fields in Unit 3 & 4 (Clause B1) & Unit 1 & 2 (Clause B2)
ESP FIELD INTERNALS REPLACEMENT WORK :

The work should be divided in two activities
(1) Pre-Shut down activities including (1a) Pre execution/shutdown visit
(2) Shut down activity

(1) Pre-Shut down activities including Pre execution/shutdown visit:
It broadly includes arrangement for replacement of collecting electrode of ESP fields. For this you have to remove the top shed of ESP, removal of top cover plate of ESP penthouse. Making and arrangement for material handling i.e. making derrick for lifting old plates and inserting new plates on ESP top roof, shifting of new collecting electrode (CE) to place, from where vertical shifting of bundle of CE initiated. Shifting of CE from ground to ESP roof plate, stacking CE to roof properly. Fixing of U clamp on CE plates. It also includes preparation of CE straightening frame for verification if required. Contractor should specify the minimum time required to carry out pre shutdown activity with necessary tools and tackles along with techno commercial bid without price bid Annexure K. Contractor must send their site representative / site in-

charge /site supervisor for Pre execution/shutdown site visit before shutdown to assist preparation work at site.

(2) Shutdown activity:

- Ensure the mechanical and electrical isolation of ESP fields.
- Open all manhole door and earth all the fields
- Carry out the water washing as per **Clause No. Of Section C4**
- Cut the ESP top roof plate (both layer) as per requirement of appropriate size.
- Remove T/R set, ERM gearbox if required.
- Check and verify the pitch of affected collecting electrode suspension frame (hook to hook).If found defected, rectify the same.
- Remove all emitting electrode from the fields and shift removed EE to scrap yard immediately.
- Scrapping to both wall & access preparation work for thickness measurement work.
- **Please note that Both side wall (CRM side & Non CRM side) inside scaffolding/Jali fixing to be prepare in such a manner that all the surface is accessible for scrapping of both wall. Then thickness measurement to be carriedout within 24 Hrs after removal of 5th row CE/EE forms each side wall.**
- **Thickness measurement: 6 Point thickness measurement to be carried out at every 18 M^2 area per wall. Total area of one side wall is 90 M 2 Hence 25 Point thickness measurements to be carried out.**
- **All the inputs regarding thickness measurement submit at earliest possible to plan and carryout casing repair activity (through separate contract).**
- **As availability of front is interconnected between both bidder.**
- **Part of the work for work front may required to shift to night shift according to overall progress of work for two independent agency with interconnected scope of work front.**
- Remove all collecting electrode from the fields and shift removed CE to scrap yard.
- Inspect the shock bar against any defect and replace/repair it if required.
- Inspect the shock bar guide against any defect and replace/repair it if required.
- Erect scaffolding in both the hopper of field for approaching the shock bar, shock bar guide. If required for replacement of internals.. (Scaffolding material will be in the scope of contractor) Size of hopper is 6.8m x 6.6m at top and 0.4m x 0.4m of conical shape and height is 8 m.
- Check collecting shaft, inner arms, outer arms plain bearing & fix bearing, Repair/ replace the damaged parts if required (in case of replacement ,it will be carried out against separate execution/billing Clause A to Y whichever applicable.)

- Check emitting electrode horizontal shaft (at two elevation), inner arms, outer arms plain bearing & fix bearing, Repair/ replace the damaged parts if required (in case of replacement required, it will carried out against separate execution/billing Clause A to Y whichever applicable.
- Check emitting electrode vertical shaft arrangement, pin wheel-1, pin wheel-2 ,bearings, thrust bearings, screen tube , shaft insulator , grip coupling ,carbon bush, Repair/ replace the damaged parts if required (in case of replacement required, it will carried out against separate execution /Clause A to Y whichever applicable.)
- Check the emitting electrode frame/sub frame & repair the damages if any
- Put the new collecting plates in position. Fit the existing or new shock bar. Fix the collecting plates in each row in U clamp. Tighten the fasteners between shock bar & collecting plate by Torque wrench and tag weld its nut with bolts.
- Fix the new emitting electrode only by stretching tool.
- After complete replacement of emitting electrode & collecting plate do alignment of field for gap. Ensure that the gap between collecting plate and emitting electrode for each row should be equal to critical dimension allowed by Go/No go gauge.
- Clean the shaft insulators & support insulators. Replace; if required. The lifting tools required for support insulator removal is in Contractor's scope.
- Joint inspection carried out for checking gap between CE & EE at all points of field. If defect observed regarding critical gap between CE & EE, will be rectifying immediately. External casing plate inspection also need to be carry out by contractor and if external casing plate found defective for air ingress it need to be attend immediately against billing/service clause given in part4.3.
- Contractor shall cover combine guarantee for material of spare supplied, execution of field erection & commissioning all eight fields.
- Close all manhole door opened earlier.
- Normalize the ESP top roof.
- Complete weld the welding joint by E 7018 A1 grade electrode.
- Welding is to be done by certified welders or approved welder by GIPCL only.
- As verification of quality of welding, DP test need to be carry out for 5% of length of weld randomly. If found unsatisfactory corrective action need to be taken by contractor. DP kit to be arrange by contractor
- Replacement of manhole door's rope of CRM, ERM, penthouse & hopper.
- Remove the foreign material accumulated in hopper after rectification work
- Clean the area. Remove the scrap & transfer it to scrap yard as per instructions of E-I/C.
- Assist for Field test charge & Ensure that all the fields develop required Voltage & ampere after repair/replacement / rectification.

- Normalize the top shed of ESP. Fastener and other related auxiliaries like nut / graphite washer will be in the scope of contractor including supply also.
- Following spares compulsory need to be replaced in field replacement.
- **Schedule A2 [For Phase#2], Per Field** compulsory replacement

SR No.	Description of parts	GIPCL Mat. Code	For 1 field
1	Collecting electrodes Carton steel (1.25 mm Carton steel)	710802038	204
2	U clamp	710801032	340
3	Washer plate 8 x 70 x 100	710801039	816
4	Fastener 4.1 & 4.2	150105020 & 19	204 &408
5	Emitting Electrodes	710117001	1782
6	G clamp		340
Condition based replacement Clause A2			
6	Support Insulator	710117002	4*
7	Shock bar	-	34*
8	Pent house fasteners and related accessories	As per actual work-compulsory supply	

***If required or instructed**

- Following spares compulsory need to be replaced in field replacement.
- **Schedule A1 [For Phase#1], Per Field** compulsory replacement.

SR No.	Description of parts	GIPCL Mat. Code	For 1 field
1	Collecting electrodes Carton steel (1.25 mm Carton steel)	710802038	258
2	U clamp	710801032	430
3	Washer plate 8 x 70 x 100	710801039	1032
4	Fastener 4.1 & 4.2	150105020 & 19	258 &516
5	Emitting Electrodes	710117001	2268
6	G clamp		430
Condition based replacement Clause A1			
6	Support Insulator	710117002	4*
7	Shock bar	-	43*
8	Pent house fasteners and related accessories	As per actual work-compulsory supply	

***If required or instructed**

- **Electrical scope of work**

For Geared motors: Ensure that

- Correct lubrication oil level is maintained (level to be 50% of the viewing glass).
- Cables are terminated properly with crimped lugs and glands and terminal box covers are watertight.
- Cable armor and two earth points of motor are earthed.
- Winding resistance across RY, YB and BR phase is equal.
- IR value of windings should be above 2Mohm.
- Trail run of geared motor systems.

For Transformer unit and Electronic controllers:

- Check IR value of transformer from primary to earth. It should not be less than 50Mohm at 30 degree centigrade.
- Check IR value of transformer from secondary to the earth after removing connection to positive bushing and shorting positive and negative terminals. It should not be less than 750Mohm at 30 degree centigrade.
- Reconnect earth connections to the positive bushing.
- Check oil level and top up if found necessary. Oil will be provided by GIPCL.
- Check condition of silica gel in breather and reactivate if found necessary.
- Carry out no load test by applying rated primary voltage. Note the no load current. This voltage should be applied for at least 10 minutes in which time the input current should not rise nor there be any unusual noise.

For disconnecting switches: Ensure that

- Insulators are healthy, clean and rigid.
- HV bus terminals and earth connections inside are tight.
- Operation of moving blade with HV and earth contacts is smooth and proper.
- Copper cable between moving arm and insulator head is properly connected.

Each disconnecting switch is provided with danger plate and two external earth connections to earth grid.

For Insulator housings: Ensure that

- Insulators are clean, healthy and rigid.
- Copper tubes are straight, tight and have sufficient electrical clearance with respect to earth and other components such as thermostats and heating elements etc.
- Heating elements are properly fixed.
- Earthling is proper.
- Each insulator housing is provided with danger plate and two external earth connections to earth grid.
- Insulator housing is insulated with thermal insulation.

For high voltage bus ducts: Ensure that

- Flanged joints are provided with gaskets and earthing cables.
- Copper tubes are straight and tightly connected.

For Heating Elements: Ensure that

- IR value is above 2Mohm (use 500V megger only).
- Continuity is ascertained.

- Cables are terminated properly with crimped lugs and glands and terminal box cover is watertight.
- Cable armor and earth points are connected to the earth.

For Thermostats: Ensure that

- Cables are terminated properly.
- Cover is watertight.
- Setting of thermostat is 120 degree centigrade for hopper heaters and 140 degree centigrade for support insulator heaters.
- Contact continuity is verified.

- Supply of electrical spares if any shall be in GIPCL scope.
- Removal of all electrical items related to field. Bidder to remove all such items safely without any damage to these items.
- Checking and testing of electrical items as per above check list
- Re-installation of all electrical items related to field after proper checking. Bidder to re-install all such items safely without any damage to these items.
- Supervision of all electrical activities under Bidder's qualified & well experienced electrical supervisor
- GIPCL will provide single phase power supply points in ESP area as per requirement. All temporary light fittings required for proper illumination in ESP field replacement activity are in Bidder's scope. Bidder to provide list of locations where there is a requirement of power supply at-least 15 days in advance before commencement of work.

Clause B5

Execution for Inner Roof Replacement Work

→ Inner roof Replacement with new plate / stiffener:

1. Cutting & Shifting of Outer roof.
2. Removal of Insulation.
3. If instructed, Insulation to be scrap immediately if not re-usable and to be shift to scrap yard
4. Cut & remove Inner roof including stiffener & insulation retainer.
5. Shift New MS plates along with stiffener from warehouse to point of lifting at ground floor.
6. Lift new MS plates along with stiffener from point of lifting at ground floor to top floor.
7. Prepare Pre assembly with minimum welding and cutting of new Plate/ stiffener.
8. If required plate will be issued to contractor in line with their recommendation for size of plate subject to availability of plate in market.
9. Issue of such size plate at sole discretion of GIPCL.
10. Provision of Hydra only for shifting of plates/stiffener is in GIPCL scope subject to availability of hydra for shifting of Plates & structure for inner roof replacement only.
11. Fitting of inner roof along with stiffener.
12. Installation of stiffener and its welding with Plate is inline with BHEL`s standard/ drawing as recommended by GIPCL EIC.
13. Welding of inner roof with existing set up along with new plate to plate welding.
14. If required (welding quality is observed as poor) DP test to be perform up to 5% of welding length. DP test execution along with DP test consumables are in contractor`s scope.
15. GIPCL may hold further work until completion of random DP test as mentioned above.
16. Installation of insulation retainer.
17. Application of insulation wool including shifting of wool in contractor`s scope.
18. It include engagement of all resources like skilled & competent manpower including Fitter / welder / Cutter in sufficient number along with Welding machine / cutting set.It also include transfer of spare from warehouse / temporary storage location to ESP and further to point of installation . If required for proper fitting preparation of supplied parts to be carryout before final installation.
19. Then on completion of work all the scrap generated out of executed work to be transfer to scrap yard. Removal of all foreign material from site. Return un used material to warehouse or temporary storage location.
20. Any point which is part of associated work but not included above will also remain part of scope of work only.

CLAUSE C / Part C:

Part C: Mobilization (including minimum maintenance) and Overhauling of fields of Unit 1 to 4.

Clause C1: Prescribed minimum maintenance activity for overhauling of PH 1 Units. (Per Unit)

Clause C2: Prescribed minimum maintenance activity for overhauling of PH 2 Units. (Per Unit)

Clause C3: Mobilization for Prescribed minimum maintenance activity & Overhauling Activity (Clause C4) Additional Overhauling Activity (Clause C5).

Clause C4: Overhauling Activity (25 Service Clause).

Clause C5: Additional Overhauling Activity (10 Service Clause).

Prescribed Minimum Maintenance Cover under Clause C.1 or C.2, whatever applicable as per Phase in which work carried out:

Clause C1: for Phase # 1

Clause C2: for Phase # 2

- If required/instructed scaffolding need to be erect for opening and closing of Hopper MHD for Phase-1.
- Check collecting shaft, inner arms, outer arms plain bearing & fix bearing, Repair/ replace the damaged parts if required (in case of replacement ,it will be carried out against separate execution/billing **Clause 1 to 25** whichever applicable.)
- Check emitting electrode horizontal shaft (at two elevation), inner arms, outer arms plain bearing & fix bearing, Repair/ replace the damaged parts if required (in case of replacement required, it will carried out against separate execution/billing **Clause 1 to 25** whichever applicable.
- Check emitting electrode vertical shaft arrangement, pin wheel-1, pin wheel-2 ,bearings, thrust bearings, screen tube , shaft insulator , grip coupling ,carbon bush, Repair/ replace the damaged parts if required (in case of replacement required, it will carried out against separate execution **Clause 1 to 25** whichever applicable.)
- Collect Reading of each and every parameter represent Field Alignment in prescribed format to represent existing condition of field in the aspect of field alignment. Also to be specified whether field alignment required / Not required.
- Shaft Alignment : (Alignment of shock pad/EE frame with Hammer) to be check for any misalignment with running CRM / ERM.
- Shaft / Support Insulator to be inspect & clean with petrol.
- GD screen / Ridge Plate / Dust Guard Plate to be inspect for any damage.

FINISHING WORK [Part of Minimum Prescribed Maintenance work] :

After completion of all above work, normalize local earthlings of all the fields. Box up the all manhole door using new ropes & check for no air ingress. Remove the foreign material, ash, etc accumulated in hopper after rectification work. Assist for Field test charge & ensure that all the fields develop required Voltage & ampere after inspection / rectification. Credit all remained/balance spares to ware house. Remove all the scrap generated like collecting plates, emitting electrodes, bolts, nuts, ropes….etc. to scrap yard as per the instruction of engineer in charge. Clean the total area of ESP where work is carried out.

Other relevant Condition:

- Transportation of all material required to repair/replace the ESP field internal from GIPCL ware house to respective site is in the scope of contractor (To & Fro)
- After joint inspection of each field, Work should only start after due clearance from GIPCL Engineer In charge for each field separately.
- Submit intermittently work progress/field internal inspection report /issued spare consumption report/man power resource report/tools tackles report time to time. Submit final inspection micro level & macro level report unit wise/station wise.
- Air load test: After completion of all repairing / replacement work all field of unit pass wise charged. At the time of charging all fields to be set at charge ratio 1 and all field need to generate maximum possible Secondary Voltage (KV) @ maximum/rated Secondery current (mA) with minimum spark per minute. Air may charge through respective pass by running ID fan to check conformity of low spark with air charge. If maximum Secondary current not reached due to sparking. Field need to re inspect and corrective action need to be taken by contractor.
- ***Guarantee covers both execution work man ship & quality of spares supplied by vendor in combine.***

Clause C3 (for Phase # 1 & for Phase#2) Mobilization **[Billing Clause: C3**

PHASE # 2:

Mobilize the necessary manpower (include Skill/un skill lab our , Execution supervisors, Store in charge, site in charge) along with necessary tools ,tackles etc to carry out the ESP work in Unit 3 & 4 separately for each two time for each unit overhauling. It include mobilization of all materials (except specified free issue materials by GIPCL), consumables, Special tools for ESP Field Alignment (I.e. J Bolts , Support insulator nut spanner, Emitting Electrode stretching tool….) fuel, equipments, tools & tackles, machineries(includes Welding machine, Gas cutting set , Cutting torch, Heating torch) safety parts/sub part of manpower & materials, standard industrial safety PPEs. Manpower also includes an Execution supervisor, who has having expertise in ESP to supervise the all work day & night. Also consisting skilled supervisor, skilled technicians, skilled riggers, Welders, gas cutters and helper in sufficient quantity.

PHASE # 1:

Mobilize the necessary manpower (include Skill/un skill lab our , Execution supervisors, Store in charge, site in charge) along with necessary tools ,tackles etc to carry out the ESP work in Unit 1 & 2 separately for each two time for each unit overhauling. It include mobilization of all materials (except specified free issue materials by GIPCL), consumables, Special tools for ESP Field Alignment (I.e. J Bolts , Support insulator nut spanner, Emitting Electrode stretching tool….) fuel, equipments, tools & tackles, machineries(includes Welding machine, Gas cutting set , Cutting torch, Heating torch) safety parts/sub part of manpower & materials, standard industrial safety PPEs. Manpower also includes an Execution supervisor, who has having expertise in ESP to supervise the all work day & night. Also consisting skilled supervisor, skilled technicians, skilled riggers, Welders, gas cutters and helper in sufficient quantity. If required/instructed scaffolding need to be erect for opening and closing of Hopper MHD.

Clause C4 : Overhauling of all fields [As per schedule below] on the basis of per service clause over and above prescribed minimum maintenance activity [Clause 1 to 25]

Service Clauses: Schedule C.4

Sr. No.	Item Description	UOM	Quantity	Unit rate	Final sub Total
1	Clause 1:lump sum price for complete washing and cleaning of total internals U1,2,3 &4	No.	4	42956	171824
2	Clause 2: Replacement of new Emitting electrode	No.	900	50	45000
3	Clause 3:Whole field realignment from top support insulator	No.	8	42956	343648
4	Clause 4: Replacement of shock pad	No.	600	200	120000
5	Clause 5:Replacement of shock bar or Shock bar angle	No.	90	1145	103050
6	Clause 6: Repair of shock bar guide rapping or non rapping side	No.	8	3436	27488
7	Clause 7:Replacement/Re-erection detached of shock bar guide rapping or non rapping side	No.	5	10309	51545
8	Clause 8:Scapholding in per M3	M3	2000	172	344000
9	Clause 9: Replacement of clamp bolt	No.	600	43	25800
10	Clause 10:Replacement of screen tubes (Shaft insulator)	No.	10	1719	17190
11	Clause 11: Replacement of screen tubes (Support insulator)	No.	3	1719	5157
12	Clause 12:Replacement of plain / fixed bearing of horizontal shafts & thrust bearing, support bearing of vertical shaft	No.	420	429	180180
13	Clause 13:Identify defected hammers (inner arms & outer arms) and repair/replace of hammers.	Set	600	200	120000
14	Clause 14: Replacement of emitting rapping horizontal shafts or vertical shafts or Gas distribution or collecting rapping shaft complete assembly including plain bearing/fixed bearing inner& outer arms. (If partially replaced proportional length to be consider)	No.	5	17183	12888

15	Clause 15:Identify defected outer and repair/replace of outer arm	No.	350	152.7	61860
16	Clause 16:Identify defect and Servicing/replacement of Pinion wheel set arrangement	Set	6	2148	141750
17	Clause 17:Removing (through MHD) of full length Collecting electrode from the fields individuals	No.	60	1031	154660
18	Clause 18:Removing (through roof) of full length Collecting electrodes row (1 row = 6 CE) from the fields Including Removal of EE	No.	25	5670	38600
19	Clause 19:Installation (through roof) of full length Collecting electrodes row (1 row = 6 CE) from the fields including installation of EE	Row	20	7733	85950
20	Clause 20:Collecting electrode straightening	No.	100	386	137456
21	Clause 21: Replacement of E.E. sub frame 36 x 54 square tube (1 No. = 3.2 M Long)	No.	50	1719	8595
22	Clause 22:identify defect and replacement of Support insulator	No.	16	8591	24000
23	Clause 23:identify defect and replacement of shaft insulator	No.	5	1719	45000
24	Clause 24:U clamp correction of CE (only re-clamping)	No.	300	80	12888
25	Clause 25:ESP heater's Electrical testing & replacement work	Per Heater	375	120	61860
					2405001

Note for Quoting : Section 2 ___+C% or D%___ % will be applicable to clause no. C1 to C5 and each sub-clause of C4 & C5.

Note: Spare for below mention work [Part-C] will be provided by GIPCL.

Tools & Tackles in Contractor`s scope.

Service Clauses: Clause C4

Note: Spare for below mention work [Clause-C4] will be provided by GIPCL.
Billing clause for below mention activity is as given in **"Schedule** C.4**"**

Clause 1: washing of all the field of ESP in unit no 1, 2, 3 & 4 ESP:

Ensure the mechanical and electrical isolation of ESP field. Open all manholes and earth all the fields locally. There are 08/07 (including 01 dummy field) fields and two pass in ESP. It includes complete water washing of all ESP field internally, GD screen, inlet funnel & outlet funnel, collecting electrode, emitting electrode. The water washing includes cleaning of ash from collecting plate, emitting electrodes, support beams, structures & hoppers of the field. For this all the manholes of ESP i.e. collecting rapping manholes, emitting rapping manhole, hopper manhole, penthouse manhole, and GD rapper manhole are to be opened. GIPCL will only indicate water point from near bye location. Hose pipe, other connection & Nozzles required for water washing and piping from water point end to application end should be arrange by Contractor. Cleaning of shaft and support insulators are also included. Close all manhole door opened earlier after completion of repairing/replacement.

Clause 2: Replacement of Emitting electrodes:

Check the stiffness of emitting electrode (EE) spring at top, middle & bottom elevation in each field randomly. Remove defective emitting electrodes and fixing new electrode in place. The stretching & fixing of electrodes has to be done through stretching device which has to be arranged by contractor. If case EE is removed but new electrode not fitted in place of removed EE, 40 % of execution considered for billing.

Clause 3: Field Re-alignment from top support insulator:

After inspection of field internal as given in, On visual inspection and critical dimension measurement if we found that whole EE frame is miss-align with reference to CE frame. Same is need to be rectify by adjusting support insulator locking nut situated at top at all four corner of the field in support insulator assembly. All special tools (J bolts, spanners etc.) required for this correction is in the scope of contractor. The skilled & execution supervise needs to be supervising whole process of re-alignment and submit initial & final reading of all critical dimensions.

Clause 4: Repair/replacement of shock pad:

Identify damaged / mis-aligned shock pad. In case of replacement Remove bolts and washers of shock pad and install new shock pad, Tack welding of nut with bolts is to be done and align the same .In case of mis-alignment only rectify defect and re-align shock pad with respective hammer.

Clause 5: Repair/replacement of shock bar or Shock bar angle

Shock bar/angle need to be identifying for repair/replace if found bend and/or damage during initial inspection. In case of heavily damage existing shock bar needs to detach from collecting electrodes. Remove existing shock bar from inspection door. Replace existing shock bar with new one and connect new shock bar with existing collecting electrode. In case of slight bending of shock bar, it needs to repair by heating, cutting & welding. Maintain critical allowed gap between affected two rows of CE/EE. Measure vertical clearance between the shock bar and guide assembly and carry out necessary modifications to maintain the required gap. Ensure for every hammers hitting position with respective shock bar/pad position correctly.

Clause 6: repair of shock bar guide rapping or non rapping side.

Check that all the shock bar guides are aligned with shock bar. If found misaligned, correct it. If correction is not possible, replace the same. If required provide ‘U’ clamp and ensure that shock bars are being guiding properly. If shock bar is detach from any end out of two end, It needs to again weld it with casing.

Check that shock bar angle are aligned and maintaining pitch between shock bar, if not found in order , correct it either by cutting some length of shock bar angle or and some spool of shock bar angle. If wear-out it needs to replace by new one.

Clause 7: replace of shock bar guide rapping or non rapping side.

Check that all the shock bar guides are aligned with shock bar. If found misaligned, correct it. If correction is not possible, replace the same with standard procedure.

Clause 8: Scaffolding in Hopper for attending any defect.

Many times, to replace/repair of shock bar guide/shock bar/shock bar angle scaffolding needs to be erect inside the ESP hoppers. Scaffolding material is under the scope of contractor. Erections of scaffolding involves, sending scaffolding material through hopper manhole door and install scaffolding as per requirement of technician through standard practice of erection of scaffolding. Scaffolding Material resource to be arranged by contractor. Billing shall be done on the basis of Meter x Meter x Meter of scaffolding erected.

Note : Above clause is only applicable for activity covers under clause of Clause C.4 / C.5 only

Clause 9: Repair/Replacement of clamp bolt :

Remove hammer's clamp bolts if found damaged. Tack welding is to be done after replacement. If bolts are found not damaged, confirm tack welding if not tack weld the same. Replace shock bar/Collecting electrode connected clamp bolt and tack weld it if found defected.

Clause 10: Repair / replacement of screen tubes (Shaft insulator)

During Initial field inspection, If Screen tube arrangement found damage/worn-out. We need to replace whole assembly of Screen tube as per standard working procedure. It involve removal of Screen tube safely without damaging other parts by cutting /grousing, Install new assembly in place and fix them.

Clause 11: Repair / replacement of screen tubes (Support insulator)

During Initial field inspection, If Screen tube arrangement found damage/worn-out. We need to replace whole assembly of Screen tube as per standard working procedure. It involve removal of Screen tube safely without damaging other parts by cutting /grousing, Install new assembly in place and fix them

Clause 12: Repair / replacement of plain / fixed bearing of horizontal shafts & thrust bearing, support bearing of vertical shaft

This includes checking and replacement of bearing bracket if found damaged. After replacement of bearing brackets, tighten its bolts and apply grease on both sides of bearing portion.

Clause 13: Replacement of emitting rapping horizontal shafts or vertical shafts or Gas distribution or collecting rapping shaft complete assembly including plain bearing/fixed bearing inner& outer arms. (If partially replaced proportional length to be consider)

The complete emitting/collecting electrode rapping mechanism including all its bearings, inner arms, outer arms, bearing assembly of plain bearing are to be thoroughly inspected. Necessary repairing, modification and tack welding of clamp bolts and fixing of missing fasteners are to be done as per the instruction of Engineer In/Charge (EIC). Both the shaft (horizontal & vertical) straightness is to be checked. Check alignment of pin wheel arrangement, made it aligned, if not, aligned properly. Replace the pin wheel if required (as per clause C16)., taking out of damaged complete shaft assembly from position and replacement by new shaft assembly, replacement and alignment of the shaft part as per dimension along with the plain bearing, inner arm, outer arm etc. This includes joining & setting of shaft parts and fitting of new hammers with tack welding of clamp bolts. Check the freeness of shaft and all hammers and correct it.

Clause 14: Repair/replacement of defective hammers (inner arms & outer arms)

The job involves checking of hammer for play in bush and Pin looseness, removal of damage hammer by gas cutting, positioning of new hammer with full tightening of nuts after fitting of washer and checking of hammers for freeness and aligning with respect to the shock bar/pad. Checking of hammer bolts for erosion and repairs or replace it if required. Rapping shaft rotation to be checked and ensure for every hammers hitting position with respective shock bar position correctly.

Clause 15: Repair/replacement of outer and repair/replace of outer arm:

The job involves checking of outer arm for play in bush and Pin looseness at joint, removal of damage outer arm by gas cutting, positioning of new outer arm with full tightening of nuts after fitting of washer and checking of hammers for freeness and aligning with respect to the shock bar/pad. Checking of hammer bolts for erosion and repairs or replace it if required (Against clause No.C9) Rapping shaft rotation to be checked and ensure for every hammers hitting position with respective shock bar position correctly.

Clause 16: Servicing/replacement of Pinion wheel set arrangement:

During Initial field inspection, If Pinion wheel arrangement found damage/worn-out. We need to replace whole assembly of pinion wheel as per standard procedure. It involve removal of Both wheel safely without damaging main shafts by cutting /grousing, Install new assembly in place and fix them.

Clause 17: Removing (through MHD) of full length Collecting electrode from the fields against damage.

Check all collecting plate for detachment from shock bar at bottom portion. If collecting plate is found badly damaged at bottom & it cannot be locked then as per instructions/Joint inspection of E- I/C, remove the complete collecting plates by cutting. Before cutting, ensure that collecting plate is secured in U clamp at top. If required, erect the scaffolding. Remaining collecting plates of that row should be properly locked with shock bar as per instructions of Engineer In-charge. Removal of individual collecting electrode from the field through MHD also includes removal/re-installation of affected Emitting electrode.

- CE need to be replaced, which were already identified U4, 8A Rapping side first CE for each 34 rows (approximately).

Clause 18: Removing (through roof) of full length Collecting electrodes row (1 row =6CE) from the fields including Removal of EE.

During joint inspection of field internals, if any bundle of rows (or part of row) of collecting electrode found damage then as per instruction of engineer in charge following work need to be carry out.

- Cut outer roof of suitable size and remove insulation from top of inner plate.
- Then cut inner roof of suitable size for removal of row of collecting electrode.
- Install proper/customize lifting arrangement for removal of bundle of CEs.
- Detach affected CEs from shock bar.
- Remove the bundle of CEs from the field and place it to nearby roof area for a while.
- If instructed by GIPCL Engineer In/charge install new collecting electrode to the place from where CEs were removed. (Separate billing/service clause applicable is Clause No. C19 for installation)
- Attach new CEs to the shock bar and verify freeness of the same.(in case of re-installation) otherwise take corrective action for remaining shock bar.
- Check and verify the pitch of affected collecting electrode suspension frame (hook to hook).If found defected, rectify the same.
- On completion of installation (if instructed) maintain the standard pitch of CE to CE and then CE to EE.
- Normalize inner & outer roof back initial condition and apply insulation in between.
- Complete weld the welding joint by E 7018 A1 grade electrode.
- Welding is to be done by certified welders or approved welder by GIPCL only.
- As verification of quality of welding, DP test need to be carry out for 5% of length of weld. If found unsatisfactory corrective action need to be taken by contractor. DP kit to be arrange by contractor
- Removal of row of collecting electrode from the field through roof also includes removal/re-installation of affected Emitting electrodes.
- Remove all scrap generated(old CEs etc…) out of work executed.
- In case partial removal for any row. Payment will be given Proportionally per CE.

Clause 19: Installation (through roof) of full length Collecting electrodes row (1 row = 6 CE) from the fields including installation of EE (maximum 3 rows)

During joint inspection of field internals, if any bundle of rows (or part of row) of collecting electrode need installation then as per instruction of engineer in charge following work need to be carry out.

- Cut outer roof of suitable size and remove insulation from top of inner plate.
- Then cut inner roof of suitable size for installation of row of collecting electrode.
- Install proper/customize inserting arrangement for installation of bundle of CEs.

- Transfer the bundle of CEs from the ground and place it to nearby roof area for a while.
- Install new collecting electrode to the place identified during inspection.
- Attach new CEs to the shock bar and verify freeness of the same.
- Check and verify the pitch of affected collecting electrode suspension frame (hook to hook).If found defected, rectify the same.
- Normalize inner & outer roof back initial condition
- Complete weld the welding joint by E 7018 A1 grade electrode.
- Welding is to be done by certified welders or approved welder by GIPCL only.
- As verification of quality of welding, DP test need to be carry out for 5% of length of weld. If found unsatisfactory corrective action need to be taken by contractor. DP kit to be arrange by contractor
- On completion of installation maintain the standard pitch of CE to CE and then CE to EE.
- Installation of row of collecting electrode from the field through MHD also includes removal/re-installation of affected Emitting electrodes.
- Remove all scrap generated out of work executed.

Clause 20: Collecting electrode straightening:

During joint inspection of field internals, if any individual CEs were found bend, then these collecting electrode need to be rectify and collecting electrode need to be as possible as straight after correction. The special tools & tackles(if) required for correction need to be arrange by vendor. As bend of one collecting electrode in the field is affect the performance of the field. Post correction inspection carried out jointly.

Clause 21: Replacement of E.E. sub frame 36 x 54 square tube (1 No. = 5.2 M Long)

During joint inspection of field internals, if any Emitting electrode subs frame found damage. It needs to replace that existing frame with new frame and following work need to be carried out.

- Vendor need to remove affected EE from the existing frame.
- Remove existing frame from CRM MHD.
- Install new Frame, align it properly with remaining part of the sub frame and finally weld it.
- Re-install all EE in the sub frame again.
- Remove all scrap generated out of work executed.

Clause 22: Identify defect and replacement of Support insulator:

Support insulator (if found damage) is to be replaced by a new one. The job involves checking of the cracked insulator, replacement of support insulator gasket if required; while replacement the suspension bolts gaps are to be maintained. Carry out alignment of the field by 'J' bolts if required. An arrangement 'J' bolts is to be done by the contractor. Complete checking and cleaning of insulator housing with bushing.

Clause 23: Identify defect and replacement of Shaft insulator:

If shaft insulator found damaged, replace it. Remove gear box assembly. Clean shaft insulator's surrounding area by clothes. Remove damaged insulator. Clean shaft insulator end by emery paper and insert new insulator and refit its locking pin. Check the alignment with emitting rapping shaft end.

Clause 24: U clamp correction of CE (only re-clamping)

During joint inspection of field internals, if any collecting electrode dis-locates from U clamp, same need to re locked to respective clamp.

Clause 25: ESP heater's Electrical testing & replacement work:

During Joint inspection of field internal, If instructed by GIPCL Engineer in charge for heater's Electrical testing & replacement work then execute work as per instruction of GIPCL Engineer in charge.

Service Clauses: Clause C5

Note: Spare for below mention work [Clause-C5] will be provided by GIPCL.

Billing clause for below mention activity is as given in **"Schedule** B**"**

GD Screen Supply & Repair activity , Ridge Plate Repair & Dust Guard Installation work					
Sr. No.	**Description**	**UOM**	**Qty**	**BO Unit rate**	**Total**
1	Supply of 50 divergent plate,2.5mm thick	No.	100	540	54000
2	Supply of 30 dummy plate,2.5 mm thick	No.	60	234	14040
3	Supply of 10 inlet GD screen of size (Vertical 1000 mm / standard width 490 mm)	No.	25	1556	38900
4	Supply of 5 outlet GD screen of size (Vertical 1500 mm / standard width 490 mm)	No.	25	3526	88150
5	GD screen inspection & Repair (Repair Clause as below)	No.	4	44978	179912
6	All around approach scaffolding for GD screen inlet system for detail inspection during shutdown for both pass.	M3	600	169	101400
7	Installation/Replacement of new/existing of divergent plate.	No.	200	309	61800
8	Installation/Replacement of new/existing of dummy plate.	No.	80	130	10400
9	Installation/Replacement of new/existing of inlet GD screen (1 Nos. = 1 Qty)	No.	25	3553	88825
10	Installation/Replacement of new/existing of outlet GD screen (1 Nos. = 1 Qty)	No.	25	2159	53975
11	Dust guard /side sealing installation/Replacement per meter (do not consider scaffolding charges it will be considered inline with sub clause of B2.0)	MTC	300	585	175500
12	Ridge plate 200 mm width/lateral ridge replacement per meter	MTC	100	378	37800
13	Ridge plate 400 mm width/lateral ridge replacement per meter	MTC	50	567	28350
14	Shock bar guide angle top side installation including strip	MTR	40	1574	62960
	TOTAL				996012

Clause 5.01:

Supply of divergent Plate: Divergent Plate suitable to existing GD screen to be supply. Scope covers ex-GIPCL supply & unloading at site/ Storage at prescribed location.

Clause 5.02:

Supply of dummy Plate : Dummy Plate suitable to existing GD screen to be supply. Scope covers ex-GIPCL supply & unloading at site/ Storage at prescribed location.

Clause 5.03:

Supply of inlet GD screen of Nominal size (Vertical 1000 mm / standard width 490 mm): Dummy Plate suitable to existing GD screen to be supply. Scope covers ex-GIPCL supply & unloading at site/ Storage at prescribed location.

Clause 5.04:

Supply of outlet GD screen of Nominal size (Vertical 1500 mm / standard width 490 mm): Dummy Plate suitable to existing GD screen to be supply. Scope covers ex-GIPCL supply & unloading at site/ Storage at prescribed location.

For all 4 items above, fitment / interchangeability/ fitting with existing set up to be confirm before supply by vendor/bidder.

Clause 5.05:

GD Screen Inspection:

GD Screen to be visually & physically inspect before shutdown on intimation by BMD. Separate & independent engineer to be depute at site for inspection of GD screen during short shutdown. Diagrammatic chart to be submit to GIPCL regarding damage Screen including divergent & dummy plate.

Payment against this clause only to be release , subject to complete repair of GD screen in line with EIC`s work instruction.

Report contains existing set up of dummy plate / divergent plate and its relative location.

Clause 5.06:

All around approach scaffolding for GD screen inlet system for detail inspection during shutdown for both pass.

Scaffolding to be erect for carrying out detail inspection and repair activity between two screens at inlet funnel area. M^3 considered in close cubical scaffolding covered between two screens (Primary Screen & Secondary screen)

Scaffolding mainly used for following purpose at GD screen area :

→ Installation/Replacement of new/existing of divergent plate.

→Installation/Replacement of new/existing of dummy plate.

→Installation /Replacement of new/existing of inlet GD screen.

→Installation/Replacement of new/existing of outlet GD screen.

Scaffolding to be erect for carrying out detail inspection and repair activity at outlet GD screen area also either from field side or from Funnel side.

Clause No. 5.07: Installation/Replacement of new/existing of divergent plate.

Clause No. 5.08*:* Installation/Replacement of new/existing of dummy plate.

Clause No. 5.09: Installation /Replacement of new/existing of inlet GD screen.

Clause No. 5.10: Installation/Replacement of new/existing of outlet GD screen

Common Scope of work for Clause 5.07 - 5.10:

UOM : Per No.

Common scope include installation of new divergent plate / dummy plate / inlet GD screen / Outlet GD screen.

Or

Replacement of existing divergent plate / dummy plate / inlet GD screen / Outlet GD screen plate by new one.

Whatever instructed.

It include engagement of all resources like skilled & competent manpower including Fitter / welder / Cutter in sufficient number along with Welding machine / cutting set.It also include transfer of spare from warehouse / temporary storage location to ESP and further to point of installation . If required for proper fitting preparation of supplied parts to be carryout before final installation.

Then on completion of work all the scrap generated out of executed work to be transfer to scrap yard. Removal of all foreign material from site. Return un used material to warehouse or temporary storage location.

Any point which is part of associated work but not included above will also remain part of scope of work only.

Clause No. 5.11: Dust guard /side sealing installation/Replacement.

Clause No. 5.12: Ridge plate 200 mm width/lateral ridge replacement per meter

Clause No. 5.13: Ridge plate 400 mm width/lateral ridge replacement.

Clause No. 5.14: Shock bar guide angle top side installation including strip

UOM: Per meter.

Common scope include installation/replacement (whichever applicable) of Dust guard /side sealing or Ridge plate 200 mm width/lateral ridge or Ridge plate 400 mm width/lateral ridge or Shock bar guide angle top side.

Whatever instructed.

It include engagement of all resources like skilled & competent manpower including Fitter / welder / Cutter in sufficient number along with Welding machine / cutting set. It also include transfer of spare from warehouse / temporary storage location to ESP and further to point of installation. If required for proper fitting preparation of supplied parts to be carryout before final installation.

Then on completion of work all the scrap generated out of executed work to be transfer to scrap yard. Removal of all foreign material from site. Return un used material to warehouse or temporary storage location.

Any point which is part of associated work but not included above will also remain part of scope of work only.

Clause D : Up gradation of TR set along with other associated spares :

Clause No.	Work Description	UOM
Clause D 1.1 & 1.2	Up gradation of 3 Phase TR set from existing single Phase TR set in Phase-1 including spare one transformer, one controller and control panels spares etc	Per TR set
Clause D 2.1 & 2.2	Up gradation of 3 Phase TR set from existing single Phase TR set in Phase-2 including spare one transformer, one controller and control panels spares etc	Per TR set

Clause D 1.1 and D 1.2 :**Scope of electrical work for providing 3-phase TR set in place of single phase TR set along with controller & its control panel, power & control cabling in Unit-1 & 2 including supply of one 3-phase TR set, one no. field controller and items of field control panel as a spare**

- Detailed study of existing BHEL make system consisting of single phase rectiformer & controller, SIEMENS make LT switchgear system, necessary cabling, for replacement with a 3 phase rectiformer system along with latest controller & its panel and ESP system.
- Removal existing single phase TR set from ESP top floor, shifting to ground level along with removal of all associated cabling from transformer location up to field controller panel and from field controller panel to respective 415 V AC power supply input panel / RAPCON panel / Auxiliary control panels etc., removal of earthing flats if required shifting , and handing over all these equipments to GIPCL engineer I/C at the location indicated by GIPCL.
- Supply and Erection of GIPCL approved 3-phase field rectifier transformer set as per GIPCL approved drawing and specification. Dimensions (foundation & HV Supply side flange connecting to field) of 3 Ph TR set should be such that it can be directly installed in place of existing single phase transformer. Removing of existing damaged & rusted transformer oil leakage collecting bath / tray and fixing new oil collecting bath/ tray painted with anti corrosive paint. Necessary transformer removal arrangement up to ground level is also to be provided.
- Supply and Erection of field control panel along with latest electronic controller in all respect as per final approved drawing of field controller panel & scheme.
- Supply and Erection of SIEMENS make 3-phase LT draw out type modules of required rating in existing LT MCC along with supply and installation of main 3-phase power contacts in vertical droppers, 3-phase incoming / outgoing sleeved bus bar assembly inside LT module, 3-phase outgoing sleeved bus bar arrangement at outgoing cable side in existing Siemens make LT panel modules.
- Supply and laying of 1.1 KV required XLPE armored power / control cables of approved make conservatively sized having sufficient capacity margin as per approved drawing / documents/data sheets with end terminations on the existing cable route from 415V LT MCC to new controller panel, from controller panel to 3-phase transformer etc. All other required cabling along with supply of required power / control / communication cables as per approved drawing / document / make for replacement of existing single phase TR set to new 3-phase TR set of complete existing field shall be in the scope of contractor.

- Supply and erection of all required cable termination accessories like Comet make double compression cable glands, Dowells make tinned copper lugs etc. are in the scope of contractor.
- During cable laying in field in existing cable route, if of removal of existing cable tray cover is required to be removed, then after completion of entire job, the same cable tray covers are to be fixed along with cable dressing of new cables laid and cable dressing job of existing cables if found disturbed.
- If at some locations it is required that cable tray is to be laid then the same shall be in the scope of contractor along with supply of required size of GI cable tray, GI cable tray cover and GI Earthing flat . If new cable tray is laid then its earthing is also to be done as per standard erection practice and new earthing flat is to be connected to existing earthing system.
- Earthing job of 3-phase rectifier transformer along with supply of required earthing flats.
- Earthing job of new field controller panel if any along with supply of required earthing flats
- Testing of all power / control cables laid for megger value as per instruction of Engineer I/C
- Oil filtration activity to be carried out for 3-phase rectifier transformer set till required parameters of oil achieved like BDV and moisture content in ppm (minimum 5-6 cycles of filtration is required) as per instruction of Engineer I/C. For oil filtration of transformer, required oil filtration machine along with oil pipes are also in the scope of contractor. Oil filtration machine (capacity minimum 1000 LPH) can be kept at ground level and oil pipes can be extended up to ESP top level near to 3-phase TR set. GIPCL will provide **3-phase 3-wire** required power supply at ground level for oil filtration machine.
- Testing of 3-phase rectifier transformer set for all routine tests like megger, winding resistance, magnetic balance test, vector group test, magnetizing current test, tan delta value etc. as per instruction of Engineer I/C
- All required testing instruments are in the scope of contractor
- Protection checking of 3-phase rectifier transformer set as per instruction of Engineer I/C
- Testing of existing / new field controller panel as per instruction of Engineer I/C
- Open circuit test of field transformer
- Short circuit test of field transformer
- Load test of complete field with new 3-phase TR set and new controller / panel
- Remote monitoring and automatic control system from Main plant control room along with all required Communication cables, Software, hardware and control PC. networking items and control PC / server (For all 7Fields x 2 Pass x 2 Units (Unit 1 & 2))
- Submission of all site related erection / testing / commissioning protocols in hard spiral binding copies minimum Four sets along with softcopy.
- Amongst total four fields of Unit-1/2, one no. spare 3-phase TR set is also to be supplied along with one no. field controller as a spare amongst all which will be installed in field control panel. Total four plus one no. 3-Ph TR set and field

controller is to be supplied. (This will be kept as spare and is to be handed over to GIPCL directly in healthy condition)

- Further as completely new field control panel is going to come for each of four fields, we need one no. item like contactor / fuse / relay / electronic cards / switches / meter / display / communication cables / resistors / LED / switch fuse unit / auxiliary relays / diodes / protective devices etc. of each type / make / rating which is part of new field control panel. Amongst total four fields of Unit-1/2, one no. spare 3-phase TR set is also to be supplied along with one no. field controller as a spare amongst all which will be installed in field control panel. Total four plus one no. 3-Ph TR set and field controller is to be supplied. (This will be kept as spare and is to be handed over to GIPCL directly in healthy condition)

Clause D 2.1 and D 2.2 :

Scope of electrical work part for providing 3-phase TR set in place of single phase TR set along with replacement of controller for one no. existing ESP field in Unit-3&4 including supply of one 3-phase TR set, field controller and items of field control panel as spare:-

- Removal and placing existing single phase TR set at ground level along with removal of all associated cabling from transformer location up to field controller panel and from field controller panel to respective power supply input panel / RAPCON panel / Auxiliary control panels etc., removal of earthing flats if required and handing over all these to GIPCL engineer I/C
- Supply and Erection of 3-phase field rectifier transformer set as per GIPCL approved drawing / document / make. Necessary removal arrangement of this transformer to ground level is also to be provided
- Supply of new field controller panel as per approved drawing / documents / make and replacement of new field controller panel in location of existing field controller panel (to make it suitable for working with new 3-phase TR set)
- Supply and Erection of 3-phase LT module of required approved rating in existing LT MSB panel of C&S make along with supply and installation of main 3-phase power contacts in vertical droppers, 3-phase incoming / outgoing sleeved bus bar inside LT module, 3-phase outgoing sleeved bus bar arrangement in existing C&S make LT panel module
- Supply of required power / control cables as per approved drawing / document / make and cable laying with end termination in existing cable route from 415V LT MSB to new / existing controller panel, controller panel to 3-phase transformer etc. All other required cabling along with supply of required power / control / communication cables as per approved drawing / document / make for replacement of existing single phase TR set to new 3-phase TR set of complete existing field shall be in the scope of contractor.
- Supply of all required cable termination accessories like COMET make double compression cable gland, DOWELL make heavy duty long barrel tinned copper lugs etc. are in the scope of contractor.
- During cable laying in field in existing cable route, if there is a requirement of removal of existing cable tray cover then after completion of entire job, the same

cable tray covers are to be fixed along with cable dressing of new cables laid and cable dressing job of existing cables if found disturbed

- If at some locations it is required that cable tray is to be laid then the same shall be in the scope of contractor along with supply of required size of cable tray. If new cable tray is laid then its earthing is also to be done as per standard erection practice and new earthing flat is to be connected to existing earthing system
- Earthing job of 3-phase rectifier transformer along with supply of required earthing flats.
- Earthing job of new field controller panel if any along with supply of required earthing flats
- Testing of all power / control cables laid for megger value as per instruction of Engineer I/C
- Oil filtration activity to be carried out for 3-phase rectifier transformer set till required parameters of oil achieved like BDV and moisture content in ppm (minimum 5-6 cycles of filtration is required) as per instruction of Engineer I/C. For oil filtration of transformer, required oil filtration machine along with oil pipes are also in the scope of contractor. Oil filtration machine (capacity minimum 1000LPH) can be kept at ground level and oil pipes can be extended up to ESP top level near to 3-phase TR set. GIPCL will provide 3-phase 3-wire required power supply at ground level for oil filtration machine.
- During erection or final commissioning of 3-phase TR set, it is found that there is a oil leakage from transformer then the same shall be arrested before final load trial of ESP field
- Testing of 3-phase rectifier transformer set for all routine tests like megger, winding resistance, magnetic balance test, vector group test, magnetizing current test, tan delta value etc. as per instruction of Engineer I/C
- All required testing instruments are in the scope of contractor
- Protection checking of 3-phase rectifier transformer set as per instruction of Engineer I/C
- Testing of existing / new field controller panel as per instruction of Engineer I/C
- Open circuit test of field transformer
- Short circuit test of field transformer
- Load test of complete field with new 3-phase TR set and new controller / panel
- Communication of new / existing field controller panel with new controller with existing communication system IOS system which was earlier commissioned by BHEL
- Establishing existing communication link between ESP Field Controller Panel / RAPCON and control room computer i.e existing IOS system to be normalized
- Submission of all site related erection / testing / commissioning protocols in hard spiral binding copies minimum two sets
- Amongst total four fields of Unit-3/4, one no. spare 3-phase TR set is also to be supplied along with one no. field controller as a spare amongst all which will be installed in field control panel. Total four plus one no. 3-Ph TR set and field controller is to be supplied. (This will be kept as spare and is to be handed over to GIPCL directly in healthy condition)

- Further as completely new field control panel is going to come for each of four fields, we need one no. item like contactor / fuse / relay / electronic cards / switches / meter / display / communication cables / resistors / LED / switch fuse unit / auxiliary relays / diodes / protective devices etc. of each type / make / rating which is part of new field control panel. (This will be kept as spare and is to be handed over to GIPCL directly in healthy condition)

Scope of Supply / Execution Clause D1.1 / D1.2 for Phase-I specifications			
SR. No.	**Item required**	**Qty for one set**	**Qty for four set**
1	3 PH Rectifier transformer with rectifier stack and complete assembly as per GIPCL approved make	1 no.	4 nos.
2	Field controller panel with controller along with programming as per GIPCL approved make	1 no.	4 nos.
3	LT module at LT MCC 400A Siemens make including supply of fixed contacts at vertical dropper bus bar, incoming / outgoing sleeved bus bar inside module and outgoing sleeved bus bar assembly at outgoing cable side suitable for 3-phase supply	1 no.	4 nos.
4	Armoured LT XLPE insulated Cable between LT MCC & controller panel - 3 - 3CX120 (This cable size given is existing one, actual size may vary and will be decided during detailed engineering in concurrence with GIPCL)	150m	600m
5	Armoured LT PVC insulated Cable between Controller panel & rectifier transformer - (1) 3 - 3CX120 - 3*125m (XLPE insulated) (2) 1 - 12CX2.5 (PVC insulated) (3) 1 - 4CX1.5 ARMOURED SCREENED COPPER CONTROL CABLE (4) 1- 4C X 1.5 CU ARMOURED SCREENED CABLE FOR SERIAL COMMUNICATION (5) 1 – 7C x 2.5 armoured control cable for CRM motor from field control panel to CRM LT module – 25m (6) 1 – 7C x 2.5 armoured control cable for ERM motor from field control panel to ERM LT module – 25m (This main power cable size given is existing one between field control panel and TR set, actual size may vary and will be decided during detailed engineering in concurrence with GIPCL)	1 Lot	4 Lot
6	Remote controller from Main plant control room along with PC and required software and hardwares / networking , cabling (For all 7Fields x 2 Pass x 2 Units (Unit 1 & 2)) Integration of these field controller panels with existing remote communication system (from main plant control room to ESP field control panels) such that these new panels can be controlled / viewed through existing communication system from main plant control room		1 Lot
7	Supply of necessary earthing material (25X3 GI flat and 50X6 GI flat), channels, cable trays, transformer, field control panel etc.	1 Lot	4 Lot

8	Additional spare 3 PH Rectifier transformer with rectifier stack and complete assembly as per GIPCL approved make		1 no.
9	Additional spare Field controller as per GIPCL approved make		1 no.
10	One no. Additional spare item like contactor / fuse / relay / electronic cards / switches / meter / display / communication cables / resistors / LED / switch fuse unit / auxiliary relays / diodes / protective devices etc. of each type / make / rating which is part of new field control panel as per GIPCL approved make		1 Lot
11	Erection & commissioning of all the above electrical system		
*** Cable length given is tentative. Bidder to visit our site for physical verification before quote.**			
*** Drawings submitted should be part of tender document.**			
*** Cable should be supplied as per GIPCL approved vendor list only.**			

3-Phase Transformer and controller of supply package must be of following make :

• **Hind Rectifier**	**T&R**	**ABB Vadodara**
• **BHEL**	**M/s Kraft power con**	

Scope of Supply / Execution Clause D 2.1 / D 2.2 for Phase-II specifications			
SR. No.	**Item required**	**Qty for one set**	**Qty for four set**
1	3 PH Rectifier transformer with rectifier stack and complete assembly as per GIPCL approved make	1 no.	4 nos.
2	Field controller panel with latest version controller along with programming as per GIPCL approved make	1 no.	4 nos.
3	LT module at LT MCC 368A C&S make including supply of fixed contacts at vertical dropper bus bar and incoming / outgoing sleeved bus bar assembly inside module, required SFU with fuses, outgoing sleeved bus bar assembly at outgoing cable side suitable for 3-phase supply	1 no.	4 nos.
4	Armoured LT XLPE insulated Cable between LT MCC & Field control panel - 3 - 3CX120 (This cable size given is existing one, actual size may vary and will be decided during detailed engineering in concurrence with GIPCL) Length given is tentative	150m	600m
5	Armoured LT PVC insulated Cable between BAPCON panel & rectifier transformer - (1) 3 - 3CX120 - 3*125m (XLPE Insulated power cable) (2) 1 - 12CX2.5 (Protections) (3) 1 - 4CX1.5 ARMOURED SHIELDED COPPER CONTROL CABLE (mA and kV feedback) (4) 1- 4C X 1.5 CU ARMOURED SCREENED CABLE FOR SERIAL COMMUNICATION	1 Lot	4 Lot

	(5) 1 – 7C x 2.5 armoured control cable for CRM motor from field control panel to CRM LT module – 25m (6) 1 – 7C x 2.5 armoured control cable for ERM motor from field control panel to ERM LT module – 25m (This main power cable size given is existing one between field control panel and TR set, actual size may vary and will be decided during detailed engineering in concurrence with GIPCL) Length given is tentative. Cable make shall be as per GIPCL approved make		
6	Supply of necessary earthing material (25X3 GI flat and 50X6 GI flat), channels, cable trays, transformer, field control panel etc. As per GIPCL approved make	1 Lot	4 Lot
7	Additional spare 3 PH Rectifier transformer with rectifier stack and complete assembly as per GIPCL approved make		1 no.
8	Additional spare Field controller as per GIPCL approved make		1 no.
9	One no. Additional spare item like contactor / fuse / relay / electronic cards / switches / meter / display / communication cables / resistors / LED / switch fuse unit / auxiliary relays / diodes / protective devices etc. of each type / make / rating which is part of new field control panel as per GIPCL approved make		1 Lot
10	RAPCON programming		1 Lot
11	Establishing existing communication link between ESP Field Controller Panel / RAPCON and control room computer i.e existing IOS system to be normalized for both Unit no. 03 and Unit no. 04 as a whole		1 Lot
12	Erection & commissioning of all the above electrical system		1 Lot
***Cable length given is tentative. Bidder to visit our site for physical verification before quote.**			
*** Drawings submitted should be part of tender document.**			
*** Cable should be supplied as per GIPCL approved vendor list only.**			

3-Phase Transformer and controller of supply package must be of following make :

• **Hind Rectifier**	**T&R**	**ABB Vadodara**
• **BHEL**	**M/s Kraft power con**	

After e-Reverse auction and deriving final cap value for work order for clause D1 & D2, vendor need to submit billing break-up for approval of GIPCL. Approved billing break-up will be only for billing purpose , however actual scope of supply is inline with tender specification only. For additional spare items, which are not commissioned as per scope work , GIPCL will take custody and remaining 20 % will be released then after.

Clause E1.1:

- This clause is pertaining to scope of supply of field controller / field control panel retrofitting items job for total 16 fields in Phase-I
- Please note that the existing field control panel is suitable for single phase transformer and of Hind rectifier make with BAPCON as field controller of old version.
- Supply of latest version ESP field controller along with programming as per GIPCL approved make and supply of other field control panel items to make suitable with new version ESP field controller such that entire existing single phase field control panel can be upgraded to new version field controller and make it suitable for remote operation from separate dedicated ESP control system located at main plant control room in Phase-I
- Before supply of field controller and other field control panel items, Bidder shall submit required drawings along with technical data sheet and make of each and every item for GIPCL approval. Only after drawing approval and approval for supply of items, Bidder shall supply the same subjected to submission of test certificates.
- All the supplied items of control panel or field controller shall be as per GIPCL approved make.
- Before supply of required items for panel up-gradation, bidder shall carry out site visit to GIPCL SLPP plant and gather all the required information / dimensions / drawings / technical data of existing single phase field control panels. Bidder should visit the site to get the complete idea on existing installation and up-gradation job.

Clause E1.2:

- This clause is pertaining to scope of erection, testing and commissioning of field controller / field control panel retrofitting items job for total 16 fields in Phase-I
- Erection, testing and commissioning of latest version ESP field controller along with programming as per GIPCL approved make and erection, testing and commissioning of other field control panel items to make suitable with new version ESP field controller such that entire existing single phase field control panel can be upgraded to new version field controller and make it suitable for remote operation from separate dedicated ESP control system located at main plant control room in Phase-I.
- Please note that the existing field control panel is suitable for single phase transformer and of Hind rectifier make with BAPCON as field controller of old version. Hence, the new controller and other items of control panel shall be latest version.
- Necessary isolation of existing field control panel shall be given one by one and bidder to establish one by one and upgrade the existing field control panel to latest version field control panel with new version field controller.
- If any minor panel cut out making or any kind of modification is required in existing field control panel then the same shall be in the scope of Bidder.
- For communication of these new supplied field controllers with main plant control room separate system, necessary inter-panel communication cabling system is

also in the scope of Bidder. Communication cables shall be as per GIPCL approved make and technical specifications.

Clause E2.1:

- This clause is pertaining to scope of supply of field controller / field control panel retrofitting items job for total 20 fields in Phase-II
- Please note that the existing field control panel is suitable for single phase transformer and of Hind rectifier make with BAPCON as field controller of old version.
- Supply of latest version ESP field controller along with programming as per GIPCL approved make and supply of other field control panel items to make suitable with new version ESP field controller such that entire existing single phase field control panel can be upgraded to new version field controller and make it suitable for remote operation from separate dedicated ESP control system located at main plant control room in Phase-I
- Before supply of field controller and other field control panel items, Bidder shall submit required drawings along with technical data sheet and make of each and every item for GIPCL approval. Only after drawing approval and approval for supply of items, Bidder shall supply the same subjected to submission of test certificates.
- All the supplied items of control panel or field controller shall be as per GIPCL approved make.
- Before supply of required items for panel up-gradation, bidder shall carry out site visit to GIPCL SLPP plant and gather all the required information / dimensions / drawings / technical data of existing single phase field control panels. Bidder should visit the site to get the complete idea on existing installation and up-gradation job.

Clause E2.2:

- This clause is pertaining to scope of erection, testing and commissioning of field controller / field control panel retrofitting items job for total 20 fields in Phase-II
- Erection, testing and commissioning of latest version ESP field controller along with programming as per GIPCL approved make and erection, testing and commissioning of other field control panel items to make suitable with new version ESP field controller such that entire existing single phase field control panel can be upgraded to new version field controller and make it suitable for remote operation from separate dedicated ESP control system located at main plant control room in Phase-I.
- Please note that the existing field control panel is suitable for single phase transformer and of Hind rectifier make with BAPCON as field controller of old version. Hence, the new controller and other items of control panel shall be latest version.
- Necessary isolation of existing field control panel shall be given one by one and bidder to establish one by one and upgrade the existing field control panel to latest version field control panel with new version field controller.

- If any minor panel cut out making or any kind of modification is required in existing field control panel then the same shall be in the scope of Bidder.
- For communication of these new supplied field controllers with main plant control room separate system, necessary inter-panel communication cabling system is also in the scope of Bidder. Communication cables shall be as per GIPCL approved make and technical specifications.

CONTRACT PERIOD, MOBILIZATION PERIOD & TIME SCHEDULE FOR COMPLETION OF WORK

- GIPCL shall issue the purchase order / work order and contract effectiveness date shall be the date of receipt/issue of purchase order / work order though mail.
- Contract period: 24 Month from the date of placement of WO.
- **Time schedule** for completion of job is as below:
- For Unit-1 ,2, 3 ,4: 25 to 30 Days for each unit tentatively depending on work planned. Work shall be done with complete unit shutdown.
- Work may be carried out during single pass outage while unit remain in operation through other pass.
- **Isolation philosophy:** During running Unit, ESP one pass will be isolated from flue gas side as Inlet gate & outlet of ESP with Electrical isolation for field replacement /Overhauling.
- Single pass outage will be planned based on requirement and will convey the time period in advance.
- In case of single pass outage both pass provided in single mobilization simultaneously with maximum 4 to 7days changeover/stabilization period.
- For each unit from the date of handing over of work front from GIPCL.
- The pre shut down activity period is excluded from this.
- The basic considerations and the essence of the 'Contract' shall be the strict adherence to the time schedule for performing the specified 'Works'. The entire works (except the pre shutdown activity) as specified in scope of work shall be completed as above.
- The work shall be carried out continuously round the clock with **2x12** hours shift working. Separate gangs shall be engaged in each shift without engaging the same manpower including site supervisor.
- In case of delay in executing the contract by contractor, GIPCL reserves the right to engage another contractor and complete the balance job at the risk and cost of the contractor.
- The said work shall be carried out in Unit 1,2,3 & 4 boiler during annual overhaul planned tentatively in the month of May to Sept . Here monsoon will be commenced from last week of june and last up to October 1st week. The average rain fall is around **40 inch** and maximum up to **100 inch.** Partly shall plan their resources accordingly to execute the work in time bound period.

MOBILIZATION INTIMATION/PERIOD:

- GIPCL shall provide 30 days advance notice for shutdown period for Mobilization intimation and 15 days advance notice as final intimation for shutdown mobilization.

1. GENERAL INSTRUCTIONS

1.1 The Bidders who are interested in participating in the tender must read and comply with the instructions and the terms and conditions contained in the tender documents.

1.2 The bids shall be filled in by the tendered clearly, neatly and accurately. Any alteration, erasures or over-writing would be liable to make the tender invalid unless the same is neatly carried out and attested over the full signature of tenderer. The decision of the Company to interpret the information and rates filled in by the tenderer shall be final and binding on the bidder.

1.3 The Bidders are requested to make themselves fully conversant with the General Conditions of Contract, Special Conditions of Contract, Technical Specifications, site conditions, safety and health aspects and norms to be observed, etc. while submitting their bids so that no ambiguity arises in these respects subsequent to submission of the Bids.

1.4 Before quoting the rates, the Bidder should go through the specifications, scope of work etc. and get himself fully conversant with them. The bid should include cost of 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.

1.5 Bidder has to quote whole scope of work, partial quote received for only one portion shall not be considered. Total job awarded on complete scope basis to one bidder only.

1.6 Bidder has to submit all the information and details required in the 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.

1.7 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.

1.8 The tender documents shall not be transferable.

1.9 The Bidders are expected to examine all instructions, forms, terms and 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 or during pre bid meeting if required.

1.10 Conditional offers shall not be considered and liable to be rejected.

1.11 The Company reserves the right to extend the deadlines for submission of the bids by giving amendments.

1.12 A Pre Bid meeting will be organized by the Company before the last date & time for submission of bids at GIPCL - SLPP. Bidders or his authorized representative should attend the pre-bid meeting. Bidders may seek any clarifications from the Company on their written request regarding the tender document.

1.13 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.

1.14 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.

1.15 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.

1.16 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.

1.17 Timely and satisfactory completion of the work and strict adherence to the allotted time frames for jobs shall be the essence of the contract.

1.18 The Company reserves the right to qualify/disqualify any applicant without assigning any reason.

1.19 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.

2. FACILITIES TO BE PROVIDED BY GIPCL

A. The Company shall provide the following facilities to the Contractor at the site:

(i) Electricity & water at nearest available one point. Further distribution to be done by contractor at their cost.

(ii) Quarter(s) for supervisor/ engineers on chargeable basis in GIPCL's township at discretion of GIPCL if available.

(iii) Workshop facility as available at site only. However 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.

(iv) Site office shall be provided at site.

(v) Hydra will provided by GIPCL based on availability on chargeable basis.

(vi) First aid facilities as available on chargeable basis.

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

B. Items/services to be provided by GIPCL free of cost.

(i) Spares for overhauling schedule C.4/ C.5

The Contractor has to collect above items from GIPCL stores/warehouse and shifting arrangement has to be made by Contractor at his own cost. Contractor shall give report/ reconciliation of the issue of materials drawn.

3. TERMS OF PAYMENT

A. Conditions of Payment:

The contractor shall raise the invoice in duplicate every month in respect of the work performed or completed during the month along with the documents as hereinafter provided. On receipt of the invoice complete in all respects and with all the said documents, the payment in respect of the same shall be made within 21 days of such receipt of a complete invoice as per the following terms of payment

(1) FOR SUPPLY OF ESP SPARE MATERIAL

- 10% advance against submission of equivalent amount of Advance Bank Guarantee (ABG) valid for supply period. Advance shall be released within 21 days of submission of ABG.
- 80 % payment within 21 days from the date of receipt of material & invoice along with test certificate of material on pro rata basis.

- Balance 10% will be released within 30 days after completion of installation work in each unit or 90 days from completion of supply unit wise whichever is earlier. Payment shall be made unit wise/ pass Wise as per commissioning of overhauling spare on pro rata basis.

(2) FOR ERECTION/OVERHAULING OF ESP SPARE MATERIAL

(i) 100% payment against the work executed duly certified by GIPCL and within 15 days of date of submission of invoice unit wise/ pass Wise.

(ii) 5% of payment from each execution clause/bill applicable unit wise payment before tax may be hold till site will not cleared in all respect post completion of work unit wise.

(iii) GST shall be paid along with bills after fulfillment of following terms.

(a) Submission of copy of registration certificate issued by GST Authority (to be furnished only once).

(b) Citing the GST Registration no. And the date of issue of registration certificate on invoices.

(c) Claim of GST amount with percentage (%) separately shown on the invoices.

(d) The contractor shall be required to submit the proof of payment of service tax of previous month/quarter, as may be applicable as & when demanded by GIPCL/Owner/company.

(e) The Bidder shall inform the Owner in the event its registration certificate is cancelled or discontinued for whatsoever reason.

(iv) Contractor shall submit two copies of bill with attached joint protocol(2 copy) signed by engineer in charge, Contractor can raise bill after completion of work of **each overhauling/execution separately**. Completion of work includes removal scrap from site.

(v) 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 one year or the Contract Period and shall remain unaltered during the entire Contract Period.

Item rates quoted, shall include cost of all consumables,(except free issue materials by GIPCL) labour, supervision, tools & tackles, transport and any such other costs excluding statutory taxes as are not specifically mentioned herein, but

may be incurred by the contractor for the satisfactory and timely completion of the work

C. Deductions from Contract Price

All costs, charges or expenses payable by the Contractor under the terms of the contract or as per the applicable laws, in respect of which he makes default in payment, shall be the liability of the Contractor. Such amount or due may be paid by the Company and the Company shall be entitled to recover the same from the Contractor by deducting the said amounts from the Contractor's monthly RA bills.

4. Scope of the Party:

→ All tools and tackles to execute the contract are in the scope of the contractor. The contractor should ensure that tools are in healthy & working condition.

→ All consumable items i.e. cloth, cotton waste, kerosene, gases (Oxygen, D/A, Argon), welding electrode, grinding and cutting wheels, emery papers, Lighting appliances etc. would be in the scope of the contractor.

→ All safety / PPEs required at site during the work are to be arranged by contractor.

→ The contractor to provide necessary facilities including accommodation of their labour at their cost.

→ The Contractor has to collect Spares from GIPCL stores/warehouse and shifting arrangement has to be made by Contractor at his own cost.

→ The contractor has to arrange hydra and tractor for lifting/shifting the heavy items on their own. M/S. GIPCL will provide hydra and tractor on chargeable basis subject to availability.

→ Canteen facilities shall be provided on chargeable basis as per company policy. Apart from the above,

No other facilities shall be provided by GIPCL. The contractor shall have to provide necessary facilities including accommodation of their labour at their cost.

5. OTHER CONDITIONS

a. Timely completion of all jobs and works shall be the essence of this Contract. Contractor should closely monitor each activities such annual shutdown jobs and complete the jobs as per the time given by and under the supervision of the Engineer-In-charge and shall ensure that sufficient manpower is deployed for the same.

b. The contractor has to complete the work as per the planning schedule and their respective supervisor has to interact with Engineer In Charge for PTW (Permit to work), work instruction, Return of permit and successful trial run.

c. The contractor has to submit daily reports showing work carried out spare parts/ consumables etc. replaced.

d. The contractor has to do quality job. GIPCL shall not compromise in quality. In case of poor quality of work the contractor may be asked to rework the job at free of cost.

e. The Government of India has enacted the Micro, Small and Medium Enterprises Development Act, 2006 (the "Act") and the Act has come into force from October 2, 2006. The Bidder shall confirm whether your organization is registered under the Micro, Small and Medium Enterprises Development Act, 2006. If your organization is registered under the Act, please specify the category i.e., Micro Enterprise, Small Enterprise or Medium Enterprise under which it is registered and kindly attach a copy of your registration certificate.
The Bidder shall provide details of registration along with copy of the registration certificate issued by the District Industries Centre/Department of Industries, etc of the respective State Government. It is to be noted that large scale industries and trading firms have been excluded from the purview of the Act.

f. **GIPCL** is an ISO 9001, ISO 14001, OHSAS 18001 & ISO 50001:2011 (EnMS) certified company, and GIPCL gives extreme importance to maintain these global standards. Contractor shall be required to observe these standards while working with GIPCL. Contractor should ensure that his workmen/labour work in accordance with them

6. DEFECT LIABILITY PERIOD / GUARANTEE PERIOD

For Supply & Execution : The Contractor shall stand guarantee for any defect found in the works/supply done within a period of 12 months from the date of work or 18 months from the date of supply whichever is earlier and shall re-do or repair and replace the same free of cost to demonstrate the performance of the works carried out. Contractor shall not be liable for any workmanship guarantee when arise due to defect in GIPCL supplied material.

For Execution Only (i.e. Material will be issued by GIPCL): The Contractor shall stand guarantee for any defect found in the works within a period of 12 months from the date of work and shall re-do or repair the same free of cost to demonstrate the performance of the works carried out. Contractor shall not be

liable for any workmanship guarantee when arise due to defect in GIPCL supplied material.

7. INTERPRETATION CLAUSE

In case of any dispute with regard to the interpretation of any of the provisions of this document or to the due performance in accordance with the contract terms, the decision of GM (SLPP), GIPCL will be final and binding.

8. PENALTY AND RECOVERY

a. The total amount of penalty recoverable from the Contractor shall be restricted to 10% of the contract value.

b. GIPCL shall also have the right to get the affected work completed by a third party or agency at the risk and cost of the Contractor along with 15% supervision charges and the Contractor shall be liable for payment of any differential amount in the contract price.

c. Any damage caused to the equipment or machinery on account of the negligence on the part of the Contractor or due to any other reasons attributable to the Contractor, shall be recovered by the Owner/GIPCL from the Contractor.

d. The ascertainment of the cause of the damage shall be done by the GM (SLPP) and his decision in this regard shall be final & binding to the contractor.

e. The decision of the Engineer-In-Charge as regard the amount of damages to be recovered from the Contractor shall be final.

The aforesaid amounts of penalty and damages shall be recoverable from the monthly bills of the Contractor or the SD. If the amount of damages recoverable from the Contractor exceeds the bills and SD amount, then the Contractor shall become liable to pay the same to GIPCL and GIPCL shall be entitled to initiate appropriate proceedings against the Contractor for the same.

9. WORK MEASUREMENT/CERTIFICATION

(i) The work to be performed being of a specialised nature, the contractor should be fully conversant with modern practices and should be able to carry out maintenance works independently of large thermal power plant`s ESP. The contractor shall therefore be required to engage qualified/ experienced personnel to undertake the work specifications as specified in scope of work.

(ii) Contractor should maintain one computer with printer for keeping daily records and maintain the data.

(iii) The Contractor shall be required to furnish satisfactory job completion report to GIPCL. The submission of report should be on daily basis, the monthly bill payment shall be released based on the certified reports of the works.

(iv) Inspection of work will be done by Engineer in Charge or his authorised representative. If the work is not found satisfactory engineer in charge reserves the right to take suitable action.

10. MEASUREMENT & DAILY REPORTS

The measurement will be as per specified in respective item description.

11.1 Contractor should maintain one computer/Laptop,Camera ,printer and internet connection for keeping daily records and maintain the data. Contractor must provide separate site e mail ID to M/s GIPCL for day to day site communication and instruction.

11.2 The Contractor shall be required to furnish satisfactory job status report to GIPCL. The submission of report should be on daily basis in physical form and soft form/pdf .

11.3 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.

11.4 Contractor should maintain proper documentation for all activities against execution of contract as per instruction of engineer in-charge and submit report in prescribed / pre define format (like material issued report AOH planning, as and when required by GIPCL Engineer in charge.

Wherever any dispute regarding mode of measurement arise, the decision of the Engineer-in-charge shall be final and binding to the contractor

SECTION-E

Supply Portion Price Schedule format for mechanical Items- **Non SoR**

Table Q1.1

Sr. No.	Item Code	Total to be Supply (A)	UoM	Unit Rate Per UOM, (B)	Total (C = A x B)	GST Rate (%)	GST Amount (Rs.) (D)	Total Amount (incl. GST)
1	710802038	**3396**	**Nos.**	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item >*		
2	710801032	**5660**	**Nos.**	*<Amount to be Quote by bidder>*				
3	710801039	**13584**	**Nos.**	*<Amount to be Quote by bidder>*				
4.1	150105020	**3421**	**Nos.**	*<Amount to be Quote by bidder>*				
4.2	150105019	**6792**	**Nos.**	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		
5	710117001	**29870**	**Nos.**	*<Amount to be Quote by bidder>*				
6	710117002	**22**	**Nos.**	*<Amount to be Quote by bidder>*				
7	710801058	**5660**	**Nos.**	*<Amount to be Quote by bidder>*				
A(8)	2710801044	**387**	**Nos.**	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		
B(9)	2710801045	**50**	**Nos.**	*<Amount to be Quote by bidder>*				
C(10)	2710801050	**387**	**Nos.**	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		
D(11)	2710802002	**68**	**Nos.**	*<Amount to be Quote by bidder>*				
E(12)	710801034	**129**	**Nos.**	*<Amount to be Quote by bidder>*				
F(13)	710801014	**8**	**Nos.**	*<Amount to be Quote by bidder>*				

Table Q1.2

Sr. No.	Item Description	Total to be Supply (A)	UoM	Unit Rate Per UOM, (B)	Total (C = A x B)	GST Rate (%)	GST Amount (Rs.) (D)	Total Amount (incl. GST)
14	**Supply of** Dummy **field revival (Refer Scope of supply Clause A1.3 Mechanical + Electrical)**	**4**	**Nos.**	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		
Total inc GST for Supply Portion Mechanical (Q1)								***S (sum)**

*S : Derive sum based on Quotes from bidders, *<Total Inputs from bidder : 15 (column B) +15 (Column G)>*

Preview of Price bid (Mechanical Supply Portion + Supply of dummy field inc. Electrical accessories as mentioned in scope of work A3) for reference only :
Table Q1.1 & Table Q1.2 (N procure Preview)

GIPCL_ESP_2022-24

Consolidated Price Schedule for GIPCL ESP Tender 2022-24

Supply Portion Price Schedule (Table Q1: Mechanical portion)

Sr. No.	Item Code	Total to be Supply (A)	UoM	Unit Rate per UoM (B)	Total (C = A x B)	GST Rate	GST Amount (Rs.) (D)	Total Amount (incl. GST)
1	710802038	3396	Nos.		0		0	0
2	710801032	5660	Nos.		0		0	0
3	710801039	13584	Nos.		0		0	0
4.1	150105020	3396	Nos.		0		0	0
4.2	150105019	6792	Nos.		0		0	0
5	710117001	29808	Nos.		0		0	0
6	710117002	18	Nos.		0		0	0
7	710801058	5660	Nos.		0		0	0
8	2710801044	387	Nos.		0		0	0
9	2710801045	50	Nos.		0		0	0
10	2710801050	387	Nos.		0		0	0
11	2710802002	68	Nos.		0		0	0
12	710801034	129	Nos.		0		0	0
13	710801014	8	Nos.		0		0	0
								0

zero

Supply of Dummy Field revival (Table Q1)

Sr. No.	Item description	Total to be Supply (A)	UoM	Unit Rate per UoM (B)	Total (C = A + B)	GST Rate	GST Amount (Rs.) (D)	Total Amount (incl. GST)
14	Supply of One (1) Dummy field revival (Refer Scope of supply Clause A1.3 Mechanical + Electrical)	4	Set		0		0	0

0

zero

Note:

1. **Compulsory Quote unit rate in column “B” in the form of any decimal value above zero (0)**
2. **GST to be Quote compulsory in % in column “GST rate” in the form of any integer (zero decimal) value equal to zero or above zero.**
3. **Column “C” & Column “D” and Column “Total Amount (incl. GST) to be calculated automatically based on quote by bidder inline with Point 1 & 2 above.**

Section-2 Supply Portion-Electrical Supply Portion Break-up for mechanical Items- in Detail - **Non SoR | TABLE # Q2**

Serial No.	Item Description	Total Qty. to be Supply	UOM
I	Supply of 3 Phase HV Transformer (rectiformer) with suitable External Disconnecting Switch	8	No.
II	Field controller panel (TRCC Panel) along with latest Controller for 3PH TR set having local & remote control facility & ERM/CRM motor control	8	No.
III	PH-1 LT Module (Complete Switch fuse Unit) at LT MCC 400A Siemens make including supply of fixed contact at vertical dropper bus bar and incoming /outgoing copper bus bar assembly inside module, doors, outgoing assembly at Cable vault for connecting outgoing cable etc suitable for 3 phase supply	4	No.
IV	Ph-2 LT Module (Complete Switch fuse Unit) at LT MCC 400A C&S make including supply of fixed contact at vertical dropper bus bar and incoming /outgoing copper bus bar assembly inside module, doors, outgoing assembly at Cable vault for connecting outgoing cable etc suitable for 3 phase supply	4	Set
V	Armoured LT PVC insulated FRLS Cable between LT MCC & controller panel and between Controller panel & rectifier transformer - for PH-1 as per list attahced	4	Set
VI	Armoured LT PVC insulated FRLS Cable between LT MCC & controller panel and between Controller panel & rectifier transformer - for PH-2 as per list attahced	4	Set
VII	Supply of Various networking items for Remote controlling from Main plant control room (with extisitng controlling ESP system) along with change in software and hardwares, cabling.	4	Set
VIII	Supply of necessary earthing material (25X3 GI flat and 50X6 GI flat), channels, angles, cable trays etc.	2	Lot
IX	One no. Additional spare item like controller/contactor / fuse / relay / electronic cards / switches / meter / display / communication cables / resistors / LED / switch fuse unit / auxiliary relays / diodes / protective devices etc. of each type / make / rating which is part of new field control panel for 3ph transformer	2	Set
X	Supply of Field controller panel (TRCC Panel) along with latest Controller having local & remote control facility & ERM/CRM motor control for control of existing 2 phase transformer (repalcement of existing TRCC)	36	No.
XI	One no. Additional spare item like contactor / fuse / relay / electronic cards / switches / meter / display / communication cables / resistors / LED / switch fuse unit / auxiliary relays / diodes / protective devices etc. of each type / make / rating which is part of supplied field control panels for 2 phase transformers	4	No.
XII	Fire proof ceiling type -A under the control panels in sqmeter	90	Sqm
XIII	Supply & installation of entire Remote Monitoring and control system to control each and every ESP field from main plant control room in Phase-II which includes supply of latest version computer with LED monitor (23 inch), required software / hardware and networking components, network switchges of D-Link make, other components of reputed make, cabling (for all 8 fields x 2 Pass x 2 Unit (Unit 3 &4), communication cable is 4P x 0.5 twisted pair armoured screened copper cable (tentative communication	1	No.

	cable requirement 400 + 400 + 250 = 1050M plus communication cable required in between panels 4 x 10M = 40M hence total requirement is 1090M) of reputed make		

Supply Portion Price Schedule format for Electrical Items- **Non SoR | TABLE # Q2**

Sr. No.	Item Description	Total to be Supply (Qty) (A)	UoM	Unit Rate Per UOM (B)	Total (C = A x B)	GST Rate (%)	GST Amount (Rs.) (D)	Total Amount (Incl. GST) (C+D)
I	Elect Item I	8	Nos.	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item >*		
II	Elect Item II	8	Nos.	*<Amount to be Quote by bidder>*				
III	Elect Item III	4	Nos.	*<Amount to be Quote by bidder>*				
IV	Elect Item IV	4	Set	*<Amount to be Quote by bidder>*				
V	Elect Item V	4	Set	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		
VI	Elect Item VI	4	Set	*<Amount to be Quote by bidder>*				
VII	Elect Item VII	4	Set	*<Amount to be Quote by bidder>*				
VIII	Elect Item VIII	2	Lot	*<Amount to be Quote by bidder>*				
IX	Elect Item IX	2	Set	*<Amount to be Quote by bidder>*		*<% to be Quote by bidder for each line item>*		
X	Elect Item X	36	Nos.	*<Amount to be Quote by bidder>*				
XI	Elect Item XI	4	Nos.	*<Amount to be Quote by bidder>*				
XII	Elect Item XII	90	Sqm	*<Amount to be Quote by bidder>*				
XIII	Elect Item XIII	1	Nos.	*<Amount to be Quote by bidder>*				
Total inc GST for Supply Portion Electrical (Q2)								***D(sum)**

*D : Derive sum based on Quotes from bidders *<Total Inputs from bidder : 13 (column B) +13 (Column G)>*

Preview of Price bid (Electrical Supply Portion) for reference only:
Table Q2(N procure Preview)

Supply Portion Price Schedule (Table Q2: Electrical portion)

Sr. No.	Item Description	Total to be Supply (Qty.) (A)	UoM	Unit Rate per UoM (B)	Total (C = A x B)	GST Rate	GST Amount (Rs.) (D)	Total Amount (incl. GST)
I	Elect Item 1	8	Nos.		0		0	0
II	Elect Item 2	8	Nos.		0		0	0
III	Elect Item 3	4	Nos.		0		0	0
IV	Elect Item 4	4	Set		0		0	0
V	Elect Item 5	4	Set		0		0	0
VI	Elect Item 6	4	Set		0		0	0
VII	Elect Item 7	4	Set		0		0	0
VIII	Elect Item 8	2	Lot		0		0	0
IX	Elect Item 9	2	Set		0		0	0
X	Elect Item 10	36	Nos.		0		0	0
XI	Elect Item 11	4	Nos.		0		0	0
XII	Elect Item 12	90	Sqm		0		0	0
XIII	Elect Item 13	1	Nos.		0		0	0
								0
								zero

Note:

1. **Compulsory Quote unit rate in column "B" in the form of any decimal value above zero (0)**
2. **GST to be Quote compulsory in % in column "GST rate" in the form of any integer (zero decimal) value equal to zero or above zero.**
3. **Column "C" & Column "D" and Column "Total Amount (incl. GST) to be calculated automatically based on quote by bidder inline with Point 1 & 2 above.**

Section-3 Execution Portion-Mechanical + Electrical Break-up –**SoR | TABLE # Q3**

Clause. No.	UOM	Qty.	Part	Estimate Unit rate before T & D per UOM	Total net Estimate before T & D	Section for SOR	SECTION for Quote
Clause B1	Per field	9	Part 2 Execution Mechanical Portion	11,34,000	1,02,06,000	3,38,78,375	**SoR** Section 2 / Clause wise Schedule of Rates (SoR) given & Bidder need to quote service charge in % on sum of Clause wise SoR, i.e. Rs. 3,38,78,375 (Mech. Portion) + 28,76, 000 (Elect. Portion) = 3,67,54,375
Clause B2	Per field	3		10,24,000	30,72,000		
Clause B3	Per mobilization per unit	5		7,22,000	36,10,000		
Clause B4	per Field	4		25,48,125	1,01,92,500		
Clause B5	per Field	12		1,39,000	16,68,000		
Clause C1	Per Unit	3		1,56,000	4,68,000		
Clause C2	per Unit	3		1,20,000	3,60,000		
Clause C3	Per mobilization per unit	6		1,50,000	9,00,000		
Clause C4	Service clause wise	1		24,05,001	24,05,001		
Clause C5		1		9,96,012	9,96,012		
Clause D1.2	Per Transformer	4	Part 2 Execution Electrical Portion	1,64,000	6,56,000	28,76,000	
Clause D2.2		4		1,60,000	6,40,000		
Clause E1.2	Per Controller	16		42,500	6,80,000		
Clause E2.2		20		45,000	9,00,000		
Total (A)						3,67,54,375	
Service Charge in %, to be quote by Bidder						X % on (A)	
Service Charge in Rs., derived based on (B)						[(A) x (X%)] / 100%	
Total Without GST (C=A+B)						(A)+ (B)	
GST in %, to be quote by Bidder						G % on (C)	
GST in Rs., derived based on (D)						[(D) x (G%)] / 100%	
Total With GST in Rs. (C+D)						(C) + (D)	

Preview of Price bid (Electrical Supply Portion) for reference only:
Table Q3 (N procure Preview)

Execution Portion Price Schedule (Table Q3: Mechanical and Electrical portion)

Sr. No.	Clause Detail	Total Estimated SoR (in Rs. excl. GST) (A)	Service Charge (in percentage)	Service Charge Amount (in Rs.) (B)	Total (Rs. including Service Charge) (C = A + B)	GST Rate	GST Amount (Rs.) (D)	Total Amount (incl. GST) (C + D)
1	Refer corresponding Table-Q3 in Section-E of Tender document (Clauses B1,B2,B3,B4,B5,C1,C2,C3,C4,C5,D1.2,D2.2,E1.2,E2.2)	36754375		0	36754375		0	36754375

36754375
three crore sixty seven lacs fifty four thousand three hundred seventy five

Note:

1. **Service Charge to be Quote compulsory in % in column "Service Charge (in percentage)" in the form of any decimal value equal to zero or above zero or below (in minus) .**
2. **GST to be Quote compulsory in % in column "GST rate" in the form of any integer (zero decimal) value equal to zero or above zero.**
3. **Column "C" & Column "D" and Column "Total Amount (incl. GST) to be calculated automatically based on quote by bidder inline with Point 1 & 2 above.**

Quote Summary:

Sr. No.	Table Reference	Description	Total Quote including GST (Rs.)
1	Table Q1.1	Section-1 Supply Portion-Mechanical- Non SoR	
2	Table Q1.2	Section-1 Supply Portion for Dummy field revival-Non SoR	
3	Table Q2	Section-2 Execution Portion Electrical- SoR	
4	Table Q3	Section-3 Execution Portion (Mechanical + Electrical- SoR	
Grand Total including GST			

Preview of Quote Summary: (N procure Preview)

Consolidated Bidders Quote Summary

Sr. No.	Table Reference	Description	Total Quote (Rs. including GST)
1	Table Q1.1	Section-1 Supply Portion Mechanical part	0
2	Table Q1.2	Section-1 Supply Portion for Dummy field revival	0
3	Table Q2	Section-2 Supply Portion Electrical part	0
4	Table Q3	Section-3 Execution Portion (Mechanical and Electrical part)	36754375
			36754375

three crore sixty seven lacs fifty four thousand three hundred seventy five

Overall Preview of Price bid

GIPCL_ESP_2022-24

Consolidated Price Schedule for GIPCL ESP Tender 2022-24

Supply Portion Price Schedule (Table Q1: Mechanical portion)

Sr. No.	Item Code	Total to be Supply (A)	UoM	Unit Rate per UoM (B)	Total (C = A x B)	GST Rate	GST Amount (Rs.) (D)	Total Amount (incl. GST)
1	710802038	3396	Nos.		0		0	0
2	710801032	5660	Nos.		0		0	0
3	710801039	13584	Nos.		0		0	0
4.1	150105020	3396	Nos.		0		0	0
4.2	150105019	6792	Nos.		0		0	0
5	710117001	29808	Nos.		0		0	0
6	710117002	18	Nos.		0		0	0
7	710801058	5660	Nos.		0		0	0
8	2710801044	387	Nos.		0		0	0
9	2710801045	50	Nos.		0		0	0
10	2710801050	387	Nos.		0		0	0
11	2710802002	68	Nos.		0		0	0
12	710801034	129	Nos.		0		0	0
13	710801014	8	Nos.		0		0	0
								0
								zero

Supply of Dummy Field revival (Table Q1)

Sr. No.	Item description	Total to be Supply (A)	UoM	Unit Rate per UoM (B)	Total (C = A + B)	GST Rate	GST Amount (Rs.) (D)	Total Amount (incl. GST)
14	Supply of One (1) Dummy field revival (Refer Scope of supply Clause A1.3 Mechanical + Electrical)	4	Set		0		0	0

	0
	zero

Supply Portion Price Schedule (Table Q2: Electrical portion)

Sr. No.	Item Description	Total to be Supply (Qty.) (A)	UoM	Unit Rate per UoM (B)	Total (C = A x B)	GST Rate	GST Amount (Rs.) (D)	Total Amount (incl. GST)
I	Elect Item 1	8	Nos.		0		0	0
II	Elect Item 2	8	Nos.		0		0	0
III	Elect Item 3	4	Nos.		0		0	0
IV	Elect Item 4	4	Set		0		0	0
V	Elect Item 5	4	Set		0		0	0
VI	Elect Item 6	4	Set		0		0	0
VII	Elect Item 7	4	Set		0		0	0
VIII	Elect Item 8	2	Lot		0		0	0
IX	Elect Item 9	2	Set		0		0	0
X	Elect Item 10	36	Nos.		0		0	0
XI	Elect Item 11	4	Nos.		0		0	0
XII	Elect Item 12	90	Sqm		0		0	0
XIII	Elect Item 13	1	Nos.		0		0	0
								0
								zero

Execution Portion Price Schedule (Table Q3: Mechanical and Electrical portion)

Sr. No.	Clause Detail	Total Estimated SoR (in Rs. excl. GST) (A)	Service Charge (in percentage)	Service Charge Amount (in Rs.) (B)	Total (Rs. including Service Charge) (C = A + B)	GST Rate	GST Amount (Rs.) (D)	Total Amount (incl. GST) (C + D)
1	Refer corresponding Table-Q3 in Section-E of Tender document (Clauses B1,B2,B3,B4,B5,C1,C2,C3,C4,C5,D1.2,D2.2,E1.2,E2.2)	36754375		0	36754375		0	36754375
								36754375
								three crore sixty seven lacs fifty four thousand three hundred seventy five

Consolidated Bidders Quote Summary

Sr. No.	Table Reference	Description	Total Quote (Rs. including GST)
1	Table Q1.1	Section-1 Supply Portion Mechanical part	0
2	Table Q1.2	Section-1 Supply Portion for Dummy field revival	0
3	Table Q2	Section-2 Supply Portion Electrical part	0
4	Table Q3	Section-3 Execution Portion (Mechanical and Electrical part)	36754375
			36754375
			three crore sixty seven lacs fifty four thousand three hundred seventy five

1. **Price Bid:**

1. **Price Bid shall be submitted only in soft form through https://gipcl.nprocure.com**
2. **Note: Estimate includes cost of all manpower (including minimum wage rate as well as specific additional adhoc allowance), materials, supervision, equipments, vehicles, consumables, tools & tackles, transportation, Safety, legal & statutory compliance, mobilization, Contingency expenditure all taxes & duties (except GST) etc... Bidder shall quote applicable GST separately in online price bid.**
3. GST shall be paid extra at actual as per prevailing rates as declared by Central Government on submission of documentary evidence.
4. **Bidder shall have to quote**

For Supply: Mechanical Portion (Items wise Quote)

(A1) The unit rates per UOM for all 15 items/package/set separately.
(B1) Applicable GST all 15 items/package separately.

in online price bid.

Note (Read along with Schedule E / Price bid Preview):

1. **Compulsory Quote unit rate in column "B" in the form of any decimal value above zero (0)**
2. **GST to be Quote compulsory in % in column "GST rate" in the form of any integer (zero decimal) value equal to zero or above zero.**
3. **Column "C" & Column "D" and Column "Total Amount (incl. GST) to be calculated automatically based on quote by bidder inline with Point 1 & 2 above.**

For Supply: Electrical Portion (Items wise Quote)

(A2) The unit rates per UOM for all 13 items/package/set separately.
(B2) Applicable GST all 13 items/package/set separately

in online price bid.

Note (Read along with Schedule E / Price bid Preview):

1. **Compulsory Quote unit rate in column "B" in the form of any decimal value above zero (0)**
2. **GST to be Quote compulsory in % in column "GST rate" in the form of any integer (zero decimal) value equal to zero or above zero.**
3. **Column "C" & Column "D" and Column "Total Amount (incl. GST) to be calculated automatically based on quote by bidder inline with Point 1 & 2 above.**

For Execution: (To be Quote on "sum of services/execution clause" whose SoR rate per UOM displayed)

(A3) the rates in the form of %age for whole execution section separately. i.e. "At Estimated Value OR %age below the estimated value OR %age above the estimated value in online Price Bid only." Bidder shall also quote

(B3) applicable GST all whole execution sections separately.

in online price bid

Note (Read along with Schedule E / Price bid Preview):

1. **Service Charge to be Quote compulsory in % in column "Service Charge (in percentage)" in the form of any decimal value equal to zero or above zero or below (in minus) .**
2. **GST to be Quote compulsory in % in column "GST rate" in the form of any integer (zero decimal) value equal to zero or above zero.**
   Column "C" & Column "D" and Column "Total Amount (incl. GST) to be calculated automatically based on quote by bidder inline with Point 1 & 2 above

5. Bidder shall have to quote the rates in the form of absolute rate or %age as described above.
6. Online quoted total amount by bidder shall include applicable GST. Total amount will be derived by considering bidder's online quoted % rate/absolute unit rate and quoted GST as per prevailing rates as declared by Central/State Government. Any statutory changes in taxes & duties will be to GIPCL's account. In case of any reduction and/or removal of taxes, the same shall be passed on to GIPCL
7. The quantities shown in the SoR (Section-E) are approximate for the contract period as per clause No. 24 section A
8. The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents
9. Price & rates quoted above shall include cost of all consumables (except free issue materials by GIPCL) labor, supervision, tools and tackles, transport etc. and such other cost are not specifically mentioned herein but

will be incurred by the contractor for the satisfactory and timely completion of the work.

10. The Goods & service tax shall be paid extra at actual, if applicable. Rate of GST tax to be clearly mentioned. Any changes in rate of the statutory levy or imposition of new levy shall be paid extra. The bidder shall clearly mention whether they attract any GST or not in techno-commercial bid itself.
11. The quantities shown in the price Bid are approximate for the contract period and may vary as per job requirement.
12. The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents.
13. Rate quoted by contractor shall be valid for 180 calendar days from the last date of submission of bids.

QUOTE SECTIONs:

SECTION-1:

SECTION-1.1 : Supply Section (Mechanical Portion)

Section 1.1 / Quote table 1.1: **For Supply: Mechanical Portion (Items wise Quote) | Table #Q1.1**

- We have quoted ____A_1 ..... A_{14}_____ Rs./ Per UOM
- GST to be quote separately_____G_1 .....G_{14}_____ in % on each Items

SECTION-1.2 : Dummy Field Supply Section (Elec+Mech Portion)

Section 1.1 / Quote table 1.2: **Dummy Field Supply Section (Lump sum Quote on BBU basis) | Table #Q1.2**

- We have quoted ____A_{15}_____ Rs./ Per UOM
- GST to be quote separately_____G_{15}_____ in % on each Items

SECTION-2: Supply Section

Section 2 / Quote table 2:**For Supply: Electrical Portion (Items wise Quote) | Table #Q2**

Section 2 / Quote 2: Base Estimated rates = **2,84,60,594**

- We have quoted ____B_1 ..... B_{13}_____ Rs./ Per UOM
- GST to be quote separately_____T_1 .....T_{13}____ in % on each Items

SECTION-3: Execution

Section 3 / Quote table 3:**For Execution Portion (To be Quote on "sum of services/execution clause" whose SoR rate per UOM displayed) | Table #Q3**

Section 3 / Quote 3: Base Estimated rates = 3,67,54,375

- We have quoted ____C_3_____% above the estimated rates as service charge.

  or

  We have quoted ____D_3_____% below the estimated rates as service charge.

- Quoted ___C_3/D_3___ % will be applicable to each activity`s unit estimated rate on (estimated rates) clause mention in Price Annexure for execution portion. (i.e. clause B1 – B5 & C1- C5 and D1.2/D2.2/E1.2/E2.2)
- GST to be quote separately as ____S_3_____ % above estimated rates including

After Considering quoted _(A1)_ A_1 ..... A_{15} & (B1)_ G_1% .....G_{15}% for GST (A2)_& B_1 ..... B_{13}_& (B2) T_1% .....T_{13}% for GST (A3)_C_3/D_3 % & (B3) S_3 % for GST, Gross Price will be derive by applying % quoted rates / % by vendor on respective section

- For section 2: Price & rates quoted above shall include cost of all consumables (except free issue materials by GIPCL) labor, supervision, tools and tackles, transport etc. and such other cost are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work except service charge & GST..
- The GST shall be paid extra at actual and also to be quote; any changes in rate of the statutory levy or imposition of new levy shall be paid extra.
- For section 1: supply item rates are estimated considering all the cost which may incur by supplier / vendor/contractor ex GIPCL with all taxes , duties , freight , transit insurance and such other cost which are not specifically mentioned herein but may require to incur to the contractor for the maintaining highest quality of material supply except service charge & GST.
- It also includes internal transportation / Unloading / Shifting to warehouse / Shifting from warehouse to Point of Lifting and further point of fitting is in the scope of contractor.
- It also includes returning of additional material to warehouse and regularization procedure followed by GIPCL like “Material Return Voucher”.
- It also includes scrapping of material from warehouse to scrap yard.
- Any plant inside shifting only during unloading / Pre shutdown for forward shifting and Post shutdown for reverse shifting.
- For section 1: supply item rates & commissioning scope coveres are estimated considering all the cost which may incur by supplier / vendor/contractor to supply parts ex GIPCL with all taxes , duties , freight , transit insurance and such other cost which are not specifically mentioned herein but may require to incur to the contractor for the maintaining highest quality of material supply and to commission the same and rate considered cost of all consumables (except free issue materials by GIPCL) labor, supervision, tools and tackles, transport etc. and such other cost are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work except service charge & GST (that to be quote separately).
- The GST shall be paid extra at actual and also to be quote; Any changes in rate of the statutory levy or imposition of new levy shall be paid extra.

Gross Price = Net Price + Quoted % (GST) on [Net Price]

17. The quantities shown in the price Bid are approximate for the contract period and may vary as per job requirement.

18. The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents.
19. Rate quoted by contractor shall be valid for 180 calendar days from the last date of submission of bids.

2. e-Reverse Auction

1. GIPCL reserves the right to opt for e-Reverse Auction for the subject tender at sole discretion of GIPCL.
2. To participate in e-Reverse Auction, bidders have to create e-Auction USER ID on www.auction.nprocure.com and it is mandatory to submit the same along with physical Technical-Commercial Bid; so that the bidder shall be allowed to participate the e-Reverse Auction
3. For conducting e-Reverse Auction, lowest 50% out of total eligible Bidders (rounded to the next higher whole number) or Minimum Three (03) eligible bidders (L1, L2& L3) whichever is higher will be invited".
4. To participate in e-Reverse Auction, bidders have to create e-Auction USER ID on www.auction.nprocure.com and it is mandatory to submit the same along with physical Technical-Commercial Bid; so that the bidder shall be allowed to participate the e-Reverse Auction
5. For e-Reverse auction Decrement value is 1,00,000 and commencement of e-reverse auction shall be informed to the qualified Bidders before start of e-Reverse Auction. The L1 Bidder`s “Net Price-before e-reverse auction including GST” shall be put up for starting e-Reverse Auction.
6. Duration for the e-Reverse Auction shall be 30 Minutes with extension of 15 Minutes at every single reverse bid received during the last 5 Minutes, till there is no further reverse bid entry by the participating Bidders.
7. After e-Reverse Auction process, L1 bidder shall be decided on lowest rate quoted during e-Reverse Auction.
8. After e-Reverse Auction process, the original rates quoted by the final L1 bidder for individual items/packages shall be reduced proportionately based on total % reduction from their original quoted gross price v/s price derived after e-reverse auction, keeping GST percentage (%) rate same as originally quoted by final L1 bidder.
9. Prorata reduction will be applied in the quoted rates for all the items of SoR after price discovery through e-Reverse Auction.

COMPANY SEAL
……..…

SIGNATURE
NAME ……..……..…
DESIGNATION ……..…..
COMPANY ……..……..…
DATE ……

SECTION-F
LIST OF ANNEXURES & FORMS

1.0 ANNEXURE-F
PROFORMA OF BANK GUARANTEE FOR ORDER PERFORMANCE
(To be Stamped in accordance with Stamp Act)

Ref: ……. Bank Guarantee No…….

Date …….

Bank Guarantee Cover period from …….. to ……..

To
M/s. GUJARAT INDUSTRIES POWER COMPANY LTD.
At & Post Nani NaroliTaluka Mangrol
Dist. Surat Gujarat-394 110.
Dear Sir,

In consideration of the Gujarat Industries Power Company Limited (hereinafter referred to as the Purchaser which expression shall unless repugnant to the context/or meaning thereof include its successors, administrators, and assigns) having awarded to M/s…….having its Registered Office/Principal Office at (address) ……. (hereinafter referred to as the "CONTRACTOR" which expression shall unless repugnant to the context or meaning thereof include its successors, administrators, executors and assigns) a Order by issue of Purchaser's Letter of Intent No…….dated…….and same having been unequivocally accepted by the CONTRACTOR dated ……..valued at ……..for (scope of order) ……and the contractor having agreed to provide a Order Performance Guarantee for the faithful performance of the entire order including for the quality of the materials and/or workmanship, successful commissioning and satisfactory performance of the equipments/system and satisfactory services rendered during the guarantee/warrantee period of …….. Months under the said LOI/Order equivalent to…...*….. (Percent) of the said value of the order to the purchaser

(Name & address of Bank) ……..

having its Head Office at …… (hereinafter referred to as the "Bank" which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators, executors, assigns) do hereby irrevocably guarantee and undertake to pay the Purchaser, on written demand any and all moneys payable by the CONTRACTOR to the extent of (in figures) …….. (in words) …… as aforesaid at any time up to (days/months/year) **…….. without any demur, reservations, contest, recourse or

(1)

protest and/or without any reference to the CONTRACTOR. Any such demand made by the Purchaser on the bank shall be conclusive and binding notwithstanding any difference between the Purchaser and CONTRACTOR of any dispute pending before any Court, Tribunal, Arbitrator or any other Authority.

It shall be conclusive and enough for enforcement of the BANK GUARANTEE on the bank if GUJARAT INDUSTRIES POWER COMPANY LIMITED invokes the BANK GUARANTEE stating only that the default has been committed by the contractor, thus far and no further. The bank undertakes not to revoke this guarantee during its currency without previous written consent of the purchaser and continue to be enforceable till the Purchaser discharges this guarantee.

The Purchaser shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee from time to time to extend the time for performance of the Order by the CONTRACTOR. The Purchaser shall have the fullest liberty, without affecting this guarantee, to postpone from time to time the exercise of any powers vested in them or of any right which they might have against the CONTRACTOR, and to exercise the same at any time in any manner, and either to enforce or to forbear to enforce any covenants, contained or implied in the Order between the Purchaser and the CONTRACTOR or any other course of or remedy or security available to the Purchaser. The Bank shall not be released of its obligations under these presents by any exercise by the Purchaser of its liberty with reference to the matter aforesaid or any of them or by reason or any other acts of omission or commission on the part of the Purchaser or any other indulgence shown by the Purchaser or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving the Bank. The Bank also agrees that the Purchaser at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance without proceeding against the CONTRACTOR and notwithstanding any security or other guarantee that the Purchaser may have in relation to the CONTRACTOR's liabilities.Notwithstanding anything contained herein above our liability under this Guarantee is restricted to Rs…….. and it shall remain in force up to the including ……unless a written demand to enforce any claim under this Guarantee is lodged with us before expiry date, the Bank will be discharged from its liabilities under this Guarantee. This Guarantee shall be extended from time to time for such period or period as may be desired by the ……..…….. on whose behalf this guarantee has been given.

Dates this……..……day of ……20……
at ……..

Signature
Banker's rubber stamp:
Name
Designation with
Bank stamp:
Attorney as per power of
Attorney No.
Dated:

(2)

2.0 ANNEXURE-G

PROFORMA FOR BANK GUARANTEE FOR EMD
(To be stamped in accordance with Stamp Act)

Ref …….. Bank Guarantee No……
Date …….

Guarantee cover period: From ……..……To ……..

To

M/s. Gujarat Industries Power Company Limited

At & Post – Nani Naroli Taluka: Mangro lDist.Surat-394 110

Dear Sirs,

In accordance with your "Invitation for Bids" under your Specification No……..……Dated……
M/s……. having its Registered/Head office at…… …… …… …… …… ……

(Herein after called the Bidder) wish to participate in the said Bid for ……

As an irrevocable bank Guarantee against Bid guarantee for an amount of Rs…….. valid for one (1) year from ……. is required to be submitted by the Bidder as a condition precedent for participation in the said Bid, which amount is liable to be forfeited on the happening of any contingencies mentioned in the Bid Documents.

We, the …… Bank at ……., having our Head Office at (local address) …….. Guarantee and undertake to pay immediately on written demand by Gujarat Industries Power Company Limited (hereinafter called the "Purchaser") (In figures) …… (In words) ……..…… without any reservation, protest, demur and recourse. Any such demand made by said "Purchaser" shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder. It shall be conclusive and enough for enforcement of Bank Guarantee on the Bank if Purchaser invokes the Bank Guarantee stating only that the default has been committed by the Bidder, thus far and no further. (1)

Contd….2

(2)

This Guarantee shall be irrevocable and shall remain valid up to …… if any further extension of this guarantee is required, the same shall be extended to such required period on receiving instructions from …….. on whose behalf the guarantee is issued.

In witness there of Bank, through its authorized Officer, has set its hand and stamp on this …….. day of ……..20 …… at ……

……

(Signature)

……

(Name)

Designation with Bank

Stamp:

Attorney as per Power of

Attorney No.

Dated …….

3.0 ANNEXURE-H

PERFORMA CERTIFICATE

(No claim, No arbitration)

To,
General Manager (SLPP)
Gujarat Industries Power Company Limited,
Surat Lignite Power Plant,
Village: Nani Naroli, Ta. Mangrol,
Dist. Surat – 394110 (Gujarat).
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 LoI / contract is full and final. We accept this, and no claim related to payment is left.
3. The rates of the LoI / 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 LoI 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 LoI 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.

4.0 ANNEXU0RE- I[To be fill and submit as a part of bid-1,Techno commercial bid] : Eligibility criteria for ESP Material Supply and Erection & commissioning.

Sr. No.	Clause Description	Yes /No	Detail of evidence	List of Supporting document attached or pdf file name
1	Bidder has to submit all the credentials and minimum three number performances certificates/supporting documents from other customers.			
2	In case of those Bidders, who are having only manufacturing back ground or execution of field erection back ground of ESP at least for last three years, they should have joint venture/ consortium arrangement with executing party in case of manufacturer & visa versa. (Proof to be attached).			
3	Leader of consortium shall submit agreement on 100 Rs. stamp paper for joint venture / consortium agreement for participation in contract.			
4	Bidder shall have executed at least →One order each of Single Combined order value to the tune of Rs. 1132 Lakh OR →Two orders each of Single Combined order value to the tune of Rs. 755 Lakh OR →Three orders each of Single Combined order value to the tune of Rs. 566 Lakh During last five years ending last day of the month previous to the one in which tender is invited, satisfactory progress of ongoing works etc. along with certified copies of documentary evidence preferably photo copies of work experience from the clients. Similar nature of work (like Supply/Execution of mechanical/electrical spare/works including Execution of			

	ESP Field Replacement, supply for ESP internals (like Collecting Electrodes, Emitting Electrodes, Transformer/Panel/controller etc…) & Overhauling in power station and shall enclose proof of the same. Bidder should specifically mention fulfilling of above criteria in his offer along with details of work orders & work completion/execution certificates issued by clients.			

COMPANY SEAL
SIGNATURE …….....
NAME …….....
DESIGNATION …….....
COMPANY ……..…….....
DATE …….....

Sr. No.	Clause Description	Yes /No	Detail of evidence	List of Supporting document attached or pdf file name
5	Bidder should have average annual turnover of Rs. 560 Lakh for last three years (2020-21,2019-20,2018-19) individually as a manufacture/Execution of field erection & commissioning or joint consortium.			
6	The net worth of the bidder as on 31.03.2021 should be positive as evidenced from audited accounts.			
7	Sub letting of execution work shall be allowed subject to approval of GIPCL at sole discretion of GIPCL. In case of subletting the contract, contractor should furnish minimum four resourceful vendor list for approval.			
8	Bidder should give guarantee for their material quality and application quality jointly in line with tender document conditions.			
9	Bidder shall furnish annual audited financial statement duly certified by Chartered Accountant for the last three financial years to demonstrate the financial healthiness of the company. The balance Sheet AND Profit and Loss Account must be in the name of the company. Any type of MOU for this purpose will not be entertained.			

	Note: In case, the annual turnover is less than the statutory guideline which does not require audit, the bidder shall submit the turnover certificate from Chartered Accountant			
10	Bidder shall depute one expert qualified and experienced site in charge to co-ordinate the work and three qualified supervisory engineers for site work. Party to submit all engineers Bio-Data for our approval and GIPCL will allow after verification of their experience and skill in ESP work.			
11	Bidder should have separate Employees Provident Fund code number towards registration of firm with RPF commissioner.			
12	Bidder shall enclose P. F. code allotment letter along with labour licenses and W.C. Policy copies of previous orders.			
	COMPANY SEAL SIGNATURE ……..... NAME ……..... DESIGNATION ……..... COMPANY ……..... DATE …….....			
Sr. No.	**Clause Description**	**Yes /No**	**Detail of evidence**	**List of Supporting document attached or pdf file name**
13	The bidder has to submit PAN Card copy of the firm/Company and Bidder has to submit copy of GST registration number.			
14	The Bidders are also required to prove their prudent behaviour and fulfilment of all the legal and contractual commitments, without any past or ongoing dispute / litigation / legal recourse with their present Principal Company / Owners. Bidder should also submit undertaking as attached in Annexure “Declaration for Contractual Litigations”			

15	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" in Annexure / Form attached			
16	Bidder shall have to submit the "Declaration-cum-Undertaking for Compliance of Safety Laws and Regulations" as amended in Annexure / Form attached.			
17	Vendor should submit specification & performance certificate for identical application (of ESP) from any customer as a part of technical bid for both 3 phase-transformers as well as controller for the offered make/model.			
18	Site Visit is mandatory prior to submission of bid to understand the scope of work, working conditions, site conditions, equipments, tools & tackles, labor deployment, associated risk, surrounding etc.			
19	Tender fee: The tender fee (5,900 Rs/-) shall be accompanied in form of Demand Draft/RTGS.			
20	EMD: The EMD (8,00,000 Rs./-) shall be accompanied in the form of DD/RTGS or Bank Guarantee given by Bank.			

COMPANY SEAL

SIGNATURE ……
NAME ……..
DESIGNATION ……..
COMPANY ……
DATE ……..

5.0 Form-A

List of qualifying staff to be submitted with physical documents

Sr. No.	**Name of Supervisor**	Qualification	Experience

Contractor / Authorized Representative's

Signature, Company's / Organization's Seal & Date

6.0 *Form-B*

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

Sr. No.	**Description**	Nos.	Status

Contractor / Authorized Representative's

Signature, Company's / Organization's Seal & Date

7.0 ANNEXURE –I[To be fill and submit as a part of bid-1,Techno commercial bid]

SCHEDULE OF DEVIATION FROM GENERAL AND TECHNICAL SPECIFICATIONS

All the deviations from the general and technical specifications shall be filled by BIDDER clause by clause in this schedule.

Sr. No	SECTION	CLAUSE NO	AS PER TENDER DOCUMENT	DEVIATION

The bidder here by certifies that the above mentioned are the only deviations from OWNER's General/ Technical Conditions of this enquiry. The bidder further confirms that in the events any other data and information presented in the BIDDER's proposal and accompanying documents are at variance with specific requirements laid out in the OWNER's General /Technical Specifications, then the latter shall govern and will be binding on the BIDDER for quoted price.

COMPANY SEAL

SIGNATURE ……

NAME ……

DESIGNATION ……..

COMPANY ……

DATE ……..

8.0 Annexure-K [Format for execution plan for execution clause-Pre shutdown activity as well shutdown activity schedule] [To be fill and submit as a part of bid-1,Techno commercial bid]

Pre shutdown activity	
Mobilization of resources	**Mobilization before _____No. day before shutdown**
1. Mobilization of crane/Vertical shifting arrangement	_____No. Of days before date of shutdown
2. Mobilization of Manpower	_____No. Of days before date of shutdown
Detail of manpower	**Nos.**
2A : site in charge	
2B : supervisors	
2C : Technician	
2D :	
2E :	
2F:	
3. Mobilization of Other applicable resources	
3A:	
3B:	
Execution schedule :	
Shutdown Activity	**Planning (Plan From zero Day*)**
Like cooling / Execution of Field Repl.	
Box up of ESP	
Add line If required	
Supply schedule	
Material detail with qty	**Planning for supply (Plan for Day 0**)**
Supply Description	**Day from LOI**
Collecting Electrode Lot 1 of X qty.	
Add line If required	

***0 Day: Date of hand over of unit for execution of AOH**

****0 Day: Date of WO/LOI for supply of material**

COMPANY SEAL

SIGNATURE ……

NAME ……

DESIGNATION ……..

COMPANY ……

DATE ……..

Price Schedule : To be read along with " Detail scope of work								
Clause. No.	**TABLE**	**UOM**	**Qty.**	**Part**	**Estimate Unit rate before T & D per UOM**	**Total net Estimate before T & D**	**Section for SOR**	**SECTION for Quote**
Clause A1	TABLE #Q1	Lot for 9 Field	1	Part 1 Supply Mechanical Portion	For Supply Portion-Mechanical Part, Bidder need to quote item wise rate for 15 items & GST rate in % for 15 items. Refer Supply Portion Price Schedule format for mechanical Items below.			**Non SoR** Section 1- Supply (Mechanical) (Item wise rate to be quote along with GST)
Clause A2		Lot for 3 Field	1					
Clause A3		Lot for 1 Field (BBU to be submit for approval)	4					
Clause A4		Lot	1					
Clause D1.1	TABLE #Q2	Lot	1	Part 1 Supply Electrical Portion	For Supply Portion-Electrical Portion, Bidder need to quote item wise rate for 13 items & GST rate in % for 13 items. Refer Supply Portion Price Schedule format for electrical Items below.			**Non SoR** Section 1- Supply (Electrical) (Item wise rate to be quote along with GST)
Clause D2.1			1					
Clause E1.1		Lot	1					
Clause E2.1			1					
Clause B1	TABLE #Q3	Per field	9	Part 2 Execution Mechanical Portion	11,34,000	1,02,06,000	3,38,78,375	**SoR** Section 2 / Clause wise Schedule of Rates (SoR) given & Bidder need to quote service charge in % on sum of Clause wise SoR, i.e. Rs. 3,38,78,375 (Mech. Portion) + 28,76, 000 (Elect. Portion) = 3,67,54,375
Clause B2		Per field	3		10,24,000	30,72,000		
Clause B3		Per mobilization per unit	5		7,22,000	36,10,000		
Clause B4		per Field	4		25,48,125	1,01,92,500		
Clause B5		per Field	12		1,39,000	16,68,000		
Clause C1		Per Unit	3		1,56,000	4,68,000		
Clause C2		per Unit	3		1,20,000	3,60,000		
Clause C3		Per mobilization per unit	6		1,50,000	9,00,000		
Clause C4		Service clause wise	1		24,05,875	24,05,875		
Clause C5			1		9,96,000	9,96,000		
Clause D1.2		Per Transformer	4	Part 2 Execution Electrical Portion	1,64,000	6,56,000	28,76,000	
Clause D2.2			4		1,60,000	6,40,000		
Clause E1.2		Per Controller	16		42,500	6,80,000		
Clause E2.2			20		45,000	9,00,000		

Bidder shall have to quote

For Supply: Mechanical Portion (Items wise Quote)

(A1) The unit rates per UOM for all 15 items/package/set separately.

(B1) Applicable GST all 15 items/package separately

in online price bid.

For Supply: Electrical Portion (Items wise Quote)

(A2) The unit rates per UOM for all 13 items/package/set separately.

(B2) Applicable GST all 13 items/package/set separately

in online price bid.

For Execution: (To be Quote on "sum of services/execution clause" whose SoR rate per UOM displayed)

(A3) the rates in the form of %age for whole execution section separately. i.e. "At Estimated Value OR %age below the estimated value OR %age above the estimated value in online Price Bid only." Bidder shall also quote

(B3) applicable GST all whole execution sections separately

in online price bid

1. Bidder shall have to quote the rates in the form of absolute rate or %age as described above.
2. Online quoted total amount by bidder shall include applicable GST. Total amount will be derived by considering bidder's online quoted % rate/absolute unit rate and quoted GST as per prevailing rates as declared by Central/State Government. Any statutory changes in taxes & duties will be to GIPCL's account. In case of any reduction and/or removal of taxes, the same shall be passed on to GIPCL
3. The quantities shown in the SoR (Section-E) are approximate for the contract period as per clause No. 24 section A
4. The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents
5. Price & rates quoted above shall include cost of all consumables (except free issue materials by GIPCL) labor, supervision, tools and tackles, transport etc. and such other cost are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work.
6. The Goods & service tax shall be paid extra at actual, if applicable. Rate of GST tax to be clearly mentioned. Any changes in rate of the statutory levy or imposition of new levy shall be paid extra. The bidder shall clearly mention whether they attract any GST or not in techno-commercial bid itself.
7. The quantities shown in the price Bid are approximate for the contract period and may vary as per job requirement.
8. The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents.
9. Rate quoted by contractor shall be valid for 180 calendar days from the last date of submission of bids.

9.0 ANNEXURE –P : Actual Bill of material [To be fill and submit as a part of bid-1,Techno commercial bid]

Item Code	Description of spare	UOM	Actual Reqm. / 1 field	Actual Reqm./ 2field	Actual Reqm./ 4 field	OEM/ Manufacturere
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
	Add line If required					

10.0 ANNEXURE-Q

ANNEXURE- Q1

(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.

Further, I ……..Name of Party/Company…… also hereby confirm, declare and undertake that there has not been any major Safety Violation and any single Fatal Accident during the execution of the contract/contracts awarded to me during the period of preceding Three years.

Signed and Stamped by the
Authorized Signatory
Of the Bidder

ANNEXURE- Q2

(To be submitted on Company's Letter Head)

Declaration for Contractual Disputes/ Litigations

I / We confirm that there are no material litigation/arbitration invoked by M /s_____ against Government of Gujarat department / undertakings / authorities which will impact execution/ performance of GIPCL's Mangrol project by M/s _____

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

ANNEXURE- S

(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.

Further, I ……..Name of Party/Company…… also hereby confirm, declare and undertake that there has not been any major Safety Violation and any single Fatal Accident during the execution of the contracts awarded to me covering the scope and area of work of this Tender during the period of preceding Three years.

Signed and Stamped by the
Authorized Signatory
Of the Bidder \