

# 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:

Biennial contract for Maintenance of Entire Electrical Systems for 4 x 125 MW Surat Lignite Power Plant, 5MW & 1MW Solar Plant and colony for years 2023-25

Bid No.: SLPP/BMC/ELECT/2023-25 (nProcure E-Tender ID: 572151)



# INSTRUCTIONS TO BIDDERS & CONDITIONS OF CONTRACT



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



# NOTICE INVITING TENDER (NIT) TENDER NO.:SLPP/BMC/ELECT/2023-25

Name of work	Biennial contract for Maintenance of Entire Electrical Systems for 4 X 125 MW Surat Lignite Power Plant, 5MW & 1 MW Solar Plant and colony for two years 2023-25.		
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 (Twenty four) months from the date of issue of Work Order.		
EMD	Rs. 2,09,000/- (Rupees Two Lac Nine thousand only) by RTGS or 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.		
Cost of tender document / tender fee	Rs. 2950.00 (2500+ 18% GST (450) =2950) (Rs. Two Thousand Nine Hundred Fifty only) through RTGS/online transfer		
Availability of online e-Tender document	On website: www.nprocure.com and http://etender.gipcl.com		
Last date of online submission of offer	06.04.2023 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 06.04.2023 up to 16:30 HRS at office of GIPCL-Surat Lignite Power Plant, Nani Naroli, Dist. Surat.		
E-Reverse Auction	E-Reverse Auction will be executed through website: https://e-auction.nprocure.com (Schedule will be intimated later on to eligible bidders).		

#### **NOTES:**

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



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

# **Chief General Manager (SLPP)**

Gujarat Industries Power Company Limited Surat Lignite Power Plant At Village: Nani Naroli, Taluka: Mangrol,

Dist.: Surat-394 110, Gujarat. Phone: (02629) 261063-72.



# 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 1184.4 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.

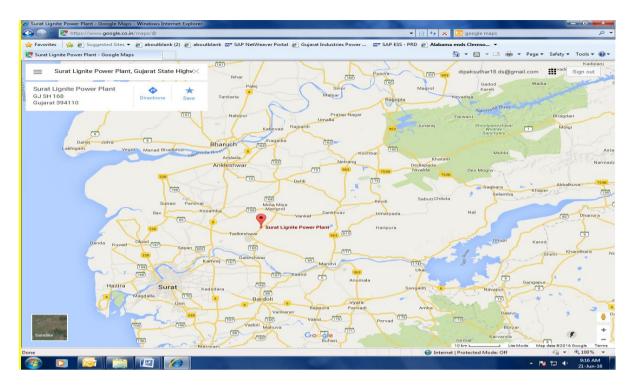
GIPCL has successfully commissioned a 2 x 40 MW Solar Project in 2017 as well as a 75 MW Solar Power Project in 2019 at Gujarat Solar Park, Village Charanka, Dist.: Patan. GIPCL has also successfully commissioned 112.4 MW wind farms at different location of Gujarat.

GIPCL has successfully commissioned 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

Note: Plant Synopsis may be updated for any change in future.





The Company intends to award Biennial maintenance contract for complete electrical system for 4 X 125 MW Surat Lignite Power plant which includes Main Plant Electrical Systems, Lignite & Lime stone handling & milling, external Lignite handling system at Mangrol mines end, Ash handling system, solar plants & Lighting system of entire plant and colony (total three package – A, B & C). For a period of two years at SLPP and is therefore like to invite open tenders from experienced & resourceful contractors online on www.nProcure.com along with provision of e-Reverse auction.

# 2. Scope of Work

- 2.1 The scope of work shall be preventive, predictive and breakdown maintenance of entire electrical systems of 4 X 125 MW Surat lignite power plant, 5 MW & 1 MW Solar plants and colony (total three packages A, B & C) which broadly covers Maintenance of :
  - a. H.T./MV motors from 190 KW to 4000KW
  - b. L.T. Motors from fraction KW to 175 KW
  - c. DC motors from fraction KW to 37 KW
  - d. HT switchgears / boards and bus ducts
  - e. LT switchgears, Feeders & panels and bus ducts
  - f. 220 KV Switchyard & Transformer yard,
  - g. 125MW Generator system and Generator Bus duct.
  - h. EHV, HV & service transformers.
  - i. Protection & Relay panels.
  - j. Actuators of different makes
  - k. Maintenance & trouble shooting in 5 MW & 1 MW Solar plant.
  - I. Battery sets and chargers of various ratings.
  - m. Variable Frequency Drive and inverter panels,
  - n. Lighting fixtures, transformers & panels, lighting towers.



- o. Miscellaneous equipments such as Hoist, EOT cranes, Earthing system, Package A.C., Soft starter,6.6/11 K.V. A.B. switch & accessories, Heaters, In line magnetic separator.
- p. Miscellaneous panels such as hooter panels, Transducer panels, Scoop panel, Sump pump panels, Marshaling panels etc.
- q. Attending to fault/defects & breakdown jobs etc.,
- r. Shift Electrical Maintenance for lignite handling system.
- s. Liasioning with statutory authority like Electrical Inspector for annual inspection of the installation.

Maintenance of above electrical equipments shall be done as per best practices & checklist provided by GIPCL.

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.

- 2.2 The bid submitted by the bidder not covering the total scope of work and services as detailed out in the tender document shall be liable for rejection.
- 2.3 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.
- 2.4 All the miscellaneous activities pertaining to specific work to be executed for satisfactory performance are in the scope of contractor in his quoted rates.

# 3. GENERAL INSTRUCTIONS

- 3.1 The Bidders who are interested in participating in the tender must read and comply with the instructions and the terms and conditions contained in the tender documents.
- 3.2 The Bids shall be filled in by the Bidders clearly, neatly and accurately. Any alteration, erasures or overwriting would be liable to make the tender invalid unless the same is neatly carried out and attested over the full signature of Bidder. The decision of the Company to interpret the information and rates filled in by the Bidder shall be final and binding on the Bidder.
- 3.3 The Bidders are requested to make themselves fully conversant with the General Conditions of Contract, Special Conditions of Contract, Technical Specifications, site conditions, safety and health aspects and norms to be



- observed, etc. before submitting their bids so that no ambiguity arises in these respects subsequent to submission of the Bids.
- 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 for all three packages A, B & C i.e. for Main plant, LLHS plant & AHS plant and Main plant lighting packages. Partial Bids received shall not be considered. However, GIPCL reserves the rights to allot all the plants/package' work to a single bidder or GIPCL may split the contract between two/three parties separately as it may deem appropriate. In case of splitting of the contract between two/three parties, the L2/L3 bidder shall match the rate with L1 bidder.
- 3.6 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.
- 3.7 The bids shall be submitted within the time frames set out in the Notice Inviting Tender ('NIT') and bids submitted thereafter shall not be accepted and considered.
- 3.8 The tender documents shall not be transferable.
- 3.9 The Bidders are expected to examine all instructions, forms, terms 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 if required.
- 3.10 Conditional offers shall not be considered and liable to be rejected.
- 3.11 The Company reserves the right to extend the deadlines for submission of the bids by giving amendments.
- 3.12 During evaluation of bids the Company may, at its discretion ask the bidder (s) for clarification of their bid. The request for clarification and the response shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted.
- 3.13 The Company reserves the right to amend/ modify the bidding documents at any time prior to the deadline for submission of bids, either at its own discretion or in response to the clarification requested by a prospective Bidder. In such case, the Company may in its discretion extend the deadline for submission of bids in order to facilitate the prospective Bidders for incorporating the effect of the amendment in their bids.
- 3.14 The Bidders shall bear all costs and expenses associated with the preparation and submission of their respective bids, to attend meetings or conferences, if any; including any pre award discussion with the successful Bidder, technical and other presentations, etc. and the Company shall not be liable for any expense thereof.



- 3.15 If the successful Bidder is consortium/joint deed of undertaking of company, the Consortium leader/Bidder shall accept joint and several responsibilities and liabilities for all obligations under the Contract.
- 3.16 Timely and satisfactory completion of the work and strict adherence to the allotted time frames for jobs shall be the essence of the contract.
- 3.17 The Company reserves the right to qualify/disqualify any applicant without assigning any reason.
- 3.18 The Bidder shall be disqualified if any untrue statement or misrepresentation is made in the bid forms, attachments and other supporting documents submitted by the Bidder.

#### 4. PLANT VISIT

It is perquisite and necessary for all interested bidders to visit the site/plant after downloading the tender copy from website: http://etender.gipcl.com/ 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 I 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.

# 5. ELIGIBILITY CRITERIA

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

5.1 Bidder should possess minimum **Three years** of experience **out of last five years** (as per following Cl. No.5.2) in similar nature of jobs like **maintenance / projects** in power plants / process industries like fertilizers, chemical, metals and should enclose proof of the same. Bidder shall submit necessary evidence for the same like attested copies of work orders along with work completion certificates from clients. The work completion certificate shall comprise of Order value & Executed value. Bidders should have executed the work directly. The work executed as a sub-contractor or subletting agency shall not be taken in to consideration.

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

- 5.2 Bidder should produce evidence of having experience of successfully completed similar works as defined hereunder 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. secured from clients along with certified copies of documentary evidence preferably photo copies of work experience. The experience should be either of the following:
  - a. One similar completed work costing not less than the amount equal to 60 %( i.e Rs.83.31 Lac) of the Annualized estimated cost.

OF

b. Two similar completed works each costing not less than the amount equal to 40 %( i.e Rs.55.54 Lac) of the Annualized estimated cost.

OR



c. Three similar completed works each costing not less than the amount equal to 30 % (i.e Rs.41.66 Lac) of the Annualized estimated cost.

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

- 5.3 Tender fee: The tender fee shall be accompanied in form of RTGS.
- 5.4 EMD: The EMD shall be accompanied in the form of DD / RTGS or Bank Guarantee given by Bank as described in subsequent clause no. 7.
- 5.5 Bidder should have separate Employees Provident Fund code number towards registration of firm with RPF commissioner.
- 5.6 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.
- 5.7 Bidder should have average annual turnover of 30% of estimated annualized contract value (41.66Lac) during last three financial years i.e. 2019-20, 2020-21, & 2021-22. 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

- 5.8 The Bidder has to submit INCOME TAX Permanent Account Number (PAN), & GST registration number. Copies of the same shall be submitted
- 5.9 The net worth of the bidder should be positive as evidenced from audited accounts of last financial year (i.e. 31/03/2022).
- 5.10 In case Bidder is a Consortium /Joint deed of undertaking of company, the above requirements/credential of consortium leader/bidder shall be considered unless otherwise specifically mentioned in the tender.
- 5.11 Bidder should possess valid electrical contractor's license and electrical supervisory permit of contractor's supervisor.



- 5.12 If Bidder or its Partner(s) or Director(s) is /are/was Black Listed I Deregistered I Stopped or banned from dealing in the past by any Govt, of Gujarat Undertakings I Depts./ Authorities and Govt. of Gujarat supported companies I undertakings I organizations, Bid of that party may be liable to be rejected. Bidder agrees and undertakes to accept decision of GIPCL in this regards as final and binding on the Bidder without any demur and that no further correspondence shall be done in this regard at any stage. Bidder shall have to submit "Declaration for Contractual Litigations" as amended in Annexure I Form attached.
- 5.13 Bidder shall have to submit the "Declaration-cum-Undertaking for Compliance of Safety Laws and Regulations" as amended in Annexure H Form attached.
  - If any Major Violation of any safety law(s) I Rule(s) is I 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 I Form to the Bid is/are found to be false, incorrect at any time in future, then the Contract awarded to that Bidder I Contractor shall be liable to be terminated forthwith without any notice I 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 I Security Deposit will also be liable to be forfeited. Any dues to GIPCL from the Bidder I Contractor shall be recovered from the pending bills or any other dues payable to the Bidder I Contractor, if any or otherwise through any other recourse available under the Laws.

The Bidder shall submit all the evidences, documents, attested copies of work orders & work completion certificates etc... as a proof with EMD &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.

- 5.14 The bidder should posses all such licenses applicable / permits which are necessary for execution of the job as per latest rules & regulations.
- 5.15 Annexure –H, Declaration Cum Undertaking for Safety Laws and Regulations compliances duly filled & stamped.
- 5.16 Annexure –I, Declaration for Contractual Dispute/Litigations Duly filled & stamped.



5.17 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.

# 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 AND TENDER FEE

7.1 The bidder shall deposit non refundable Tender fees of Rs 2950.00 (2500+ 18% GST (450) =2950) (Rs. Two Thousand Nine Hundred Fifty only) along with the bid. The Tender fees shall be paid by RTGS/NEFT/ through online payment gateway in GIPCL website. Guidelines for Payment through GIPCL online payment Gateway is provided in ANNEXURE-K.

Bank Details are as below:

BANK NAME : State Bank of India

ADDRESS OF BANK : Utility Building, Nani Naroli, Taluka Mangrol,

Dist. Surat. Pin-394 110

IFSC CODE : SBIN0013423 MICR CODE : 394002513

NAME OF A/C HOLDER : Gujarat Industries Power Company Limited

A/C No. : 33514692834

7.2 An EMD of Rs.2, 09,000/- shall accompany with Bid. EMD shall be in the form of Crossed Bank Demand Draft in favor of Gujarat Industries Power Co. Ltd. as per following details:

Sr. No.	Bank Details	Payable at Branch
1	Bank of Baroda	Mosali, Dist - Surat
2	State Bank of India	Nani Naroli Branch code: 13423
3	Any other Banks	Surat

- 7.3 The EMD shall be submitted in the form of DD/irrevocable Bank Guarantee in favor of Gujarat Industries Power Company Limited from
  - 1) All Nationalized Banks
  - 2) Axis Bank
  - 3) ICICI Bank
  - 4) HDFC Bank
  - 5) Kotak Mahindra Bank



- 6) IndusInd Bank
- 7) RBL Bank
- 8) DCB Bank
- 9) Federal Bank
- 10) Bandhan Bank
- 11) Standard Chartered Bank
- 7.4 Alternatively, the EMD may also be submitted through RTGS / Online mode of payment by the bidders.
- 7.5 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.
- 7.6 The EMD of the successful bidder will be returned after payment of Security Deposit by successful bidder.
- 7.7 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.
- 7.8 Any bid not accompanied with EMD and Tender fee will be rejected. Tender fees and EMD should be submitted to GIPCL.
- 7.9 No interest shall be payable on EMD.
- 7.10 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.

# 7.11 SCHEDULE OF EMD & TENDER FEES

EMD &Tender fee and other documents to be submitted in physical form on or before due date of closing of the tender Address for Submission:

CGM - 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) 261080

### 8. SUBMISSION OF BID

#### A: MODE OF SUBMISSION

The bids shall be submitted online at the https://www.nprocure.com 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) Price Bid.
- (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-G) Technical as well as commercial, if any.
- 3. Qualification & experience of Supervisors/Engineers.

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 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. Turn over for the last three years, audited annual accounts/financial statements i.e. profit and loss account and balance sheet duly certified by a practicing CA will be required.
- 7. P.F Number and Allotment Letter.
- 8. PAN Number.
- 9. GST registration number/certificate copy.
- 10. Valid electrical contractor's license copy.
- 11. Valid electrical supervisory permit of contractor's supervisor.
- 12. To participate in e-Reverse Auction, bidders have to create e-Auction USER ID on <a href="www.auction.nprocure.com">www.auction.nprocure.com</a> 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.
- 13. Annexure –H, Declaration Cum Undertaking for Safety Laws and Regulations compliances duly filled & stamped.
- 14. Annexure –I, Declaration for Contractual Dispute/Litigations Duly filled & stamped.

# (b) Price Bid:

- 1. Price Bid shall be submitted only in soft form through n procure e- portal https://www.nprocure.com.
  - Note: Estimate includes cost of all manpower, equipments, vehicles, consumables, tools & tackles, transportation, Safety statutory compliance, mobilization etc...
- 2. GST shall be paid extra at actual as per prevailing rates as declared by Central Government on submission of documentary evidence.
- 3. Bidder shall have to quote the rates in the form of %age. i.e. "At Estimated Value OR \_\_\_\_\_ percentage below the estimated value OR percentage above the estimated value."
- 4. The quantities shown in the price Bid are approximate for the contract period and may vary as per job requirement.



5. The Bidder shall fill the Bid documents with utmost care in consonance with the instructions contained in the Bid documents.

#### **B: METHOD OF TENDERING / SIGNATURE OF 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 consortium/joint deed of undertaking of company/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:

- 13.2.1The Company will examine the Bids for any computational errors, for sureties furnished by bidder, for authentication of documents submitted and completeness of the Bids.
- 12.2.2 Arithmetical errors will be rectified on the following basis:
  - (a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price will be corrected & will be binding to the bidders.
  - (b) If there is a discrepancy between the Total Bid Amount and the sum of total prices, the sum of total prices shall prevail and the Total Bid Amount will be corrected & will be binding to the bidders.

### 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.
- 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 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 2 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.

# 17. ASSIGNMENT AND SUB-LETTING

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

#### 18. <u>CONTRACTOR'S OBLIGATIONS</u>

#### A: DEPLOYMENT & RESPONSIBILITY 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 separately to properly complete the job in given/scheduled time.
- The Contractor shall depute its own workmen/labor 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 labor 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/labor 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/labor with safety equipment like helmets, masks, gum boots, rain coats, a uniform (Minimum 3 pairs for AMC/ARC) 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) Safety belt
  - f) Safety Apron
- 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 entrusted job. They have to maintain daily records 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-In-Charge 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 emergency or similar situations the Contractor shall be required to mobilize resources as per need within the period of 24 hours as directed by GIPCL. If the contractor fails to mobilize sufficient manpower to complete the job in time, GIPCL will execute the job through other agency at the risk and cost of the contractor with 10% supervision charges& the same will be recovered from the Contractor's bill.



- 10. Important Note: Whenever any of the Unit at SLPP remains under outage due to any reason, the contractor shall mobilize sufficient work force at site within a period of twenty four hours from the time of intimation to the site-in-charge or via mail to your office. Generation loss occurred due to want of manpower as well as resources & tractors will be viewed very seriously and will invite appropriate punitive measures as decided by competent authority.
- 11. During working in high risk area like hot lines of steam/ water/ oil the 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.
- 12. 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 work increases substantially). For this, enhanced work shall be completed by deploying additional manpower with separate supervisor. Payment will be made on item 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 all shifts with independent manpower. Contractor should not continue the same manpower for more than 12 hours.

#### **B: TOOLS & TACKLES**

- (i) 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. List of Minimum Tools and Tackles required to execute the work is given in Annexure-F.
  - Note: If work is suffered due to want of sufficient manpower, tools & tackles, vehicles, equipments and/or required consumables then 25% of the total job cost will be levied as a penalty for each and every instance.
- (ii) For proper execution of the scope of work, the contractor is required to maintain sufficient quantity of tools & tackles with in good working condition at site as per day to day work load and emergency situations to complete the work in stipulated time. The contractor should note that this list of tools & tackles is not exhaustive and 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.
- (iii) In case of breakdown of equipment, the contractor should work round the clock for putting back the area in service immediately within minimum time. In case of any emergency arising during night hours the contractor should be in a position to mobilize the manpower immediately within minimum time.
- (iv) 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. 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.

- (v) 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.
- (vi) Electrician/supervisor should ensure following while providing 1-Ph / 3-Ph supply:
  - All equipments, to which connection is being provided, must be connected to ground with receptacles / source end.
  - While connecting to any welding machine, please ensure ELCB / RCCB / RCBO is provided on machine end at incoming.
  - Power cable must be of continuous length with armour and without any splices. DO NOT connect the machine with power source if ELCB / RCCB / RCBO is not there & cable is spliced.
  - Ensuring proper grounding is provided at equipment & receptacle ends before making power supply ON.
  - Ensuring use of proper PPEs required for all kind of works.
  - Pin sockets of IS standards should be used for all connections and cable connection should not in loos condition, which may cause any damage or failure to the machine/manpower.

For any accident take place & any damage to the equipment and/or injury to human due to carelessness in connection, contractors will be held responsible & liable for any recovery/actions.

(vii) 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 the stipulated time given by GIPCL Engineer, the scrap will be removed by GIPCL at the risk and cost of Contractor with 15% of overhead charges and it will be deducted from the RA bill.



# 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 <a href="mailto:electslpp@gipcl.com">electslpp@gipcl.com</a> 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. <u>UNDERSTANDING AND CLARIFICATION ON DOCUMENTS AND SPECIFICATION</u>

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.

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/ RTGS only.

#### 23. POINTS TO BE CONSIDERED DURING QUOTING ONLINE PRICE BID

- 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 tender.
- 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.



# SECTION-B INSTRUCTIONS TO BIDDERS FOR ONLINE TENDERING

- Tender documents are available only in electronic format. Bidders can download free of cost from the web site http://etender.gipcl.com.
- 2. All Bids (technical and price Bid) should be submitted online through the website www.nprocure.com only. Physical submission of Price Bid will not be entertained. Also, no fax, e-mail, letters will be entertained for the same.
- 3. Following should be submitted 'off-line' in sealed covers separately during dates & time set in NIT at our office at Village: Nani Naroli, Taluka: Mangrol, Dist.: Surat 394 110, Gujarat.
  - [1] Tender Fee, (rtgs proof)
  - [2] E.M.D.
  - [3] Supporting Documents for Technical Bid.
- 4. Bidders who wish to participate in online tenders will have to procure *I* 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.
- 5. 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.** GIPCL reserves the right to conduct E-Reverse auction through (n) Procure platform.
- 2. E-Reverse auction shall be conducted amongst (a) the lowest 50% eligible bidders (rounded to the next higher whole number) from the total bids received OR (b) Minimum three (03) lowest bidders, whichever is higher, shall be invited for participation in a-Reverse Auction through n-procure platform.



- **3.** Opening Price, Detrimental value and duration for the a-Reverse Auction shall be informed to the qualified bidders before start of a-Reverse Auction.
- **4.** After a-Reverse Auction process, L1 bidder shall be decided on Lowest Total Contract Price.
- **5.** To participate in e-Reverse Auction, Bidders have to create e-Auction USER ID on <a href="https://e-auction.nprocure.com">https://e-auction.nprocure.com</a> that the bidder shall be allowed to participate the e-Reverse Auction.
- **6.** In case of any further information regarding online bidding or if a Bidder needs any assistance in accessing / submission of online bid/ clarification or if training is required for participating in online e-reverse bidding, then the Bidder can contact the following office for assistance or training:
  - (n) Procure Cell, (n) code solutions-A division of GNFC Ltd.,

403, GNFC Info tower, S.G. Road, Bodakdev Ahmedabad- 380054 (Gujarat) Toll Free: 1-800-419-4632/1-800-233-1010,

Phone No. 079-26857315/316/317,

Fax: 079-26857321/40007533, Email: nprocure@gnvfc.net

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



# SECTION-C GENERAL CONDITIONS OF CONTRACT

#### 1) CONTRACT SECURITY DEPOSIT/ PERFORMANCE BANK GUARANTEE

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

PBG from list of banks as mentioned below & format attached in tender document.

- 1) All Nationalized Banks
- 2) Axis Bank
- 3) ICICI Bank
- 4) HDFC Bank
- 5) Kotak Mahindra Bank
- 6) IndusInd Bank
- 7) RBL Bank
- 8) DCB Bank
- 9) Federal Bank
- 10)Bandhan Bank
- 11)Standard Chartered Bank

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

The Performance Bank Guarantee (initial security deposit) will be returned to the Vendor/Contractor without any interest at the end of the 'Retention Period' after completion of contract and on fulfilling contractual obligations throughout the retention period. However, any delay in submission of SD 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 negligence of contractor or any other reasons attributed to contractor the 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.

(ii) If the contractor fails to execute the work as per directions of Engineer (I/c) within the time frame given in work order and as per day to day instructions by Engineer-in-charge, GIPCL shall get the work done by third party at the risk & cost of the contractor with 10% additional overhead charges of GIPCL.

# 3) 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.

# 4) 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 10% overhead charges.

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

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

- 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.
- viii. GIPCL reserves the right to terminate the contract without giving any reason whatsoever and forfeit the PBG.

#### 5) 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 10% 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.

# 6) **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 appointed by Managing Director, GIPCL according to the provisions of The Arbitration & Conciliation Act, 1996, as amended from time to time. The place of arbitration shall be at Surat/Vadodara or any other place within state of Gujarat.
- b. 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

# 7) INTERPRETATION OF CLAUSE

In case of disputes as regards interpretation of any of the clauses or specification, the decision of Head of Management (HOM) - GIPCL will be final and binding on the contractor.

#### 8) 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.



# 9) STATUTORY REQUIREMENTS

# 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.
  - a. 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.
  - b. 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.
  - c. 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.
  - d. 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.
  - e. 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.



- f. The Contractor shall not pay less than the Minimum Wages notified by the Government from time to time to his employees of corresponding categories.
- g. 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.
- h. 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.
- i. 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 Employees Compensation Act, 1923.
- j. 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.
- k. The Contractor shall not engage / employ persons below the age of 18 years. Employment of women shall be strictly according to applicable laws.
- I. 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 Employees 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.
- m. The contractor shall make payment of wages to his employees on fixed date within the period specified under the applicable Law, in presence of representative of the company. He will submit a true copy of wage sheet, attendance register and P.F. remitted challans on monthly basis to HR&A dept. for verification and record.
- n. 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.



- o. The contractor shall conduct pre-induction and periodic medical checkup of his workmen as per applicable laws.
- p. 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.
- q. 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.
- r. Contractor shall have to insure his workmen /supervisors etc. under Group Insurance scheme.
- s. 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.
- t. Documentary evidence of deposit of PF paid shall have to be produced by the contractor along with the next bill.
- u. Records as per the provisions of various statutory Acts will have to be maintained by the contractor and submitted as and when required.
- v. 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.
- w. 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.
- x. **Annual Health Check Up:-** As per statutory requirement, Contractor has to inform workmen deployed at site for annual health check up as per schedule prepared by HR&A department.

#### **B. LEGAL ASPECTS**



- Contractor shall maintain all register required under the Labour Laws and make the payment as per the Minimum Wages Act to the workers employed by him.
- 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 worker/labour stating therein the nature of job to be performed by him and fix time for which the concerned worker/labour are likely to be deployed. Contractor shall also issue a temporary identity card specifying the period for which the workers/labours 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.

# 10)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.

# 11) 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.



# 12) LIGHTING

Necessary illumination at General work area will be provided by GIPCL.

# 13) NIGHT/SUNDAY/HOLIDAY SHIFT

The contractor shall depute qualified and adequate resources in night shift/Sunday/holidays for any emergency job, which may come up at night/Sunday/holiday.

#### 14) 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 Department. Safety Department 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 Department. Security Department will inform to Safety Department, 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 Dept. Safety Dept. 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.

# 15) 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. Such as:-

#### Helmet:

Sr No.	Model	Company	Safety Helmet Specifications
• • • • • • • • • • • • • • • • • • • •	111000	• • • • • • • • • • • • • • • • • • • •	



01.	Tough Hat, HP- TH	Sure Safety	IS : 2925 – 1984, ANSI / ISEA
02.	V-Gard	MSA	Z89.1-2009
03.	PN 521 - Shelmet	Karam	

Safety Shoes:

Sr No.	Model	Company	Specificatio	
01.	Acme Fabrik plast Co.	SSTEELE (Strom)-Double Density		
02.		TRIMAX(Adjacent) -Double	IS: 15298-	
02.	Acme Fabrik plast Co.	Density	2011	
03.	Worktoes Warren	Worktoes - Warren Plus		

- 4. Other safety gears like ear plug, dust mask, hand gloves, safety goggles, gum boots, rain coats, 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, electric shock 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 registers 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.
В	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.  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	<ul> <li>Rs. 500 /- per instant.</li> <li>After three incidence, Per incidence Rs. 2500/-</li> <li>Continuous unsafe acts will disqualify the contractor from further participation in tender of GIPCL-SLPP.</li> </ul>



		tackles being used without third party inspection certificates in form no. 9/10 as per Factory Act – 1948 etc	
С	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.

## **Electrical safety**

- All the electrical apparatus including welding machine (either 3-phare or single phase) should be provided with Earth Leakage Circuit Breaker (ELCB/RCCB/RCBO) of 30mA rating.
- Bidder should ensure periodic checking of ELCB provided in their electrical apparatus.
- Bidder should ensure that there should not be any joint in the power supply cable of any machine. All cables should be in good condition with no bare insulation or frayed wires
- Any power supply switchboard/extension boards brought by Bidder should have ELCB of 30mA rating and it should have sockets along with 3-pin plug
- Any type of cable brought by Bidder should not have any joint and should be of sufficient capacity for the respective job.
- ➤ Bidder to bring their own 24V rating portable hand lamps along with cable of (apparatus should be having 230V / 24V transformer) for the temporary lighting arrangement required at site for the respective jobs.
- ➤ Bidder should bring sufficient qty no. of temporary light fixtures (230V or 24 V as per requirement of job/contract), extension boards, cables to draw supply from nearest power point.
- Hand-held and portable machines shall be equipped with a built-in switch to switch off power in case of emergency
- ➤ Bidder to ensure healthiness of their electrical equipment whenever brought to GIPCL site and get them tested / verified by GIPCL Electrical Department representatives before start using.
- Bidder to ensure All portable electric apparatus shall be regularly examined, tested and maintained to ensure that the apparatus and leads are in good order.
- Only three-core cable shall be used for single phase operated tools with the third core connected to earth.
- ➤ Ensure that all metallic portable appliances are provided with 3 pin plug and socket connections with third pin be connected to the ground terminal where ever possible. Also, the metal work of the apparatus is effectively earthed.



- ➤ All cables and connections should be sound and of adequate capacity and properly insulated while using any welding machine and other power connections.
- > The earthing arrangements should be properly made with earthing clamps or a bolted terminal while using any welding machine
- ➤ Electric holders when not in use, should be placed on an insulated hook or the holders should be fully insulated while using any welding machine
- Whenever the welder stops or leaves work for any appreciable time, the power supply to welding machine shall be effectively disconnected while using any welding machine
- ➢ GIPCL will provide either single phase OR 3-phase 3 wire power supply from the nearby point at job site. Bidder to supply the required cable between GIPCL power supply point to equipment brought by Bidder for the specified job. Further, if Bidder's equipment requires 3-ph 4 wire supply then they should derive 3-ph 4 wire supply from GIPCL 3-ph 3 wire supply system by incorporating sufficient capacity transformer. Like for hydro jet cleaning system, mixer machine, induction heating machine, SR machine etc., GIPCL will provide 3-ph 3 wire power supply.
- Cable between welding machine to GIPCL power supply point should have cable TOP plug towards GIPCL power supply point of Make BALS having rating as 63 Amp.

Contractors not following above electrical safety points at any point of time are liable to penalty and their machine/ apparatus shall be seized by GIPCL.

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

#### **16) 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.

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.

## 17) GENERAL TERMS AND CONDITIONS

- a. 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.
- b. 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.
- c. If the work is not found satisfactory, Engineer-in-charge reserves the right to take suitable action.
- d. Contractor shall depute and nominate package wise (Main plant / LHS / AHS) independent full time senior experienced person in writing as site in charge to co-ordinate with GIPCL engineer and shall bear overall responsibility of contract including joint measurement, billing etc. 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. Such person shall function from site office of contractor at SLPP.
- e. 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.
- f. Contractor shall strictly follow the existing work permit system of the GIPCL and any future revisions.
- g. 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.
- h. 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 10% overhead charges.
- i. 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.
- j. 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.
- k. 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, 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.
- I. 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.
- m. One or more jobs may be required to be done simultaneously and contractor shall mobilize additional resources accordingly.
- n. 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.
- o. 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.
- p. The contractor has to submit daily reports showing work carried out with details of available manpower.
- q. 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.
- r. 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.
- s. 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.
- t. GIPCL is an ISO 9001, ISO 14001, OHSASBS ISO 45001:2018, ISO 27001 & ISO 50001:2018 (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.

## 18) CONTRACTOR'S SUPERVISION

The contractor shall, during the whole time the work is in progress, employ a qualified experienced site-in-charge of the works with adequate experience in handing of jobs of this nature and with the prior approval of the GIPCL / ENGINEER. Such in-charge shall be constantly in attendance at the site during



working hours. During 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.

## 19)CONTRACTOR TO REMOVE ALL OFFENSIVE MATTER IMMEDIATELY AND CLEAN-UP

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

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

## 20) FACILITIES TO BE PROVIDED BY GIPCL



- **A.** The Company shall provide the following facilities to the Contractor at the site:
  - a. Electricity & water 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. First aid facilities as available on chargeable basis

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

**B.** GIPCL shall also conduct an orientation program appraising the workmen regarding the safety norms and measures to be observed during work operations at the plant site.

## 21) 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. All the work measurement shall be jointly recorded in a measurement sheet/register/relevant documents by the contractor / authorized representative of the contractor and the Engineer-in-charge. The measurement shall be clearly written indicating date of the measurement, location, reference of drawings, if any, and jointly signed.
- d. 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.
- e. 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.

#### 22) PUBLIC HOLIDAYS

The Contractor shall be responsible for giving benefit to all his employees, employed in whatsoever capacity, 09 Public/Paid holidays and the same shall be notified in advance and due communication thereof shall be made to the Management.

# 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/-Lac 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.

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) 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.

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

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E-Tender for "Biennial contract for Maintenance of Entire Electrical Systems for 4 x 125 MW Surat Lignite Power Plant, 5 MW &1 MW Solar Plant and colony for years 2023-25". Bid No.: SLPP/BMC/ELECT/23-25.





# SECTION-D SPECIAL CONDITIONS OF CONTRACT

## 1. DETAIL SCOPE OF WORK

The scope of the work for the Contractor is to maintain the entire electrical system and Equipments of 4 X 125 MW power plant and solar plants by deploying qualified and skilled manpower

## A. Main Plant Electrical System. (PACKAGE - A)

#### Preventive / Breakdown Maintenance of Electrical Equipments

All Electrical Equipments of Main plant systems FOR 4 X 125MW **Phase-1 & 2** (Boiler area / Turbine area, Balance of plant area, 220 KV switchyard, Bodhan / Patna pump house etc) and solar plant( 5 MW & 1 MW) is included for Preventive Maintenance/Breakdown Maintenance/ Overhauling/ Servicing as indicated and included in the Price schedules. All the maintenance activities should be started only after ensuring that the equipment is isolated and discharged by local earthing.

The details of maintenance work to be carried out is below:-

## A) MAINTENANCE OF HT/ LT MOTORS

- 1 Check tightness of terminal connections.
- 2 Check availability of plain, spring washers and replace if necessary.
- 3 Check healthiness of space heater. Measure space heater resistance and current
- 4 Tightness of cooling fan & fan cover, replacement if required.
- 5 Lubrication/ greasing of the bearings.
- 6 Check for availability / tightness of earth connections.
- 7 Tightness of foundations bolts.
- 8 Cleaning of cooling tubes of the motor
- 9 Winding resistance measurement
- 10 Megger value for motors.
- 11 Sealing of cable at terminal box of space heater, main cable box.
- 12 Checking of speed switch connections.
- 13 Checking healthiness of speed switch controller (Whenever applicable).
- 14 Cable support tightness.
- 15 Checking of cable if disconnected.
- 16 Replacement of gaskets of motor terminal box if applicable
- 17 Drying out of motors having low insulation resistance value.
- 18 Removal/ replacement of damaged motor TB.
- 19 Fan cover removal & re-installation if required for Instruments checking
- 20 Replacement of bearings if required.
- 21 Any other job as required.



## **B) MAINTENANCE OF LT FEEDERS**

- 1 Checking of power contactor kits, cleaning, replacement if needed.
- 2 Tightness of power and control cables.
- 3 Cleaning of modules with blower.
- 4 Checking of BMR setting
- 5 Correctness of fuses
- 6 Replacement of damaged components & blown fuses.
- 7 Module alignment.
- 8 Checking, rectification and alignment of module.
- 9 Checking of shorting links.
- 10 Cleaning and greasing of sliding surfaces for draw out type modules.
- 11 Testing of module in test position/ service position for functional checks.
- 12 Tightness and dressing of external cabling in the cable alley.
- 13 CT/PT wiring checks
- 14 Tightness checking, mounting, earthing checking of PB station, replacement of Components if required.
- 15 Any other job as required

## C) MAINTENANCE OF SF6/VACUUM / AIR CIRCUIT BREAKERS

- 1 Checking of vacuum / SF6 gas pressure.
- 2 Filling SF6 gas if required.
- 3 Attending leakage (SF6)
- 4 Cleaning of breaker compartment, metering and control circuit compartment.
- 5 Checking of alignment of breaker and necessary rectification.
- 6 Cleaning and application of petroleum jelly at contacts.
- 7 Checking/alignment of test / service position switches.
- 8 Checking/alignment / rectification of breaker rack in rack out mechanism.
- 9 Checking/Replacement of spring charging motor, servicing of spring charging motors.
- 10 Mechanical setting for closing/ trip coils.
- 11 Replacement of damaged rollers.
- 12 Replacement of damaged components of breakers.
- 13 Tightness and dressing of wiring.
- 14 Tightness of external power cable, earthing lead.
- 15 Sealing of cable compartment.
- 16 Function checking in test / service position, local/ remote position.
- 17 Replacement of faulty components- like indicating lamps, meters.
- 18 Checking of control fuses, fuse bases, replacement of fuses, fuse bases.
- 19 Alignment checking of breaker control plug.
- 20 Tightness checking mounting earthing, checking of PB stations, replacement of components if required.
- 21 Any other job as required.



## D) MAINTENANCE OF HT/ LT BOARDS / UPS & VFD PANELS

- 1 Removal of bus bar compartment cover and through cleaning by hot air blower/ clothes/ all compartment covers.
- 2 Bus bar tightness with torque wrench.
- 3 Physical check of bus bar support insulators, CTs, PTs, replacement if required
- 4 Cleaning / tightness checking of control bus bars.
- 5 Cleaning / tightness checking of cable alleys.
- 6 Tightness/ meggering of cable termination
- 7 Continuity and tightness of earthing connections.
- 8 Cleaning/tightness of control transformer modules, bus LT modules, line PT modules.
- 9 Bus PT module alignment.
- 10 Checking of all spare feeders.
- 11 Door fixing / alignment.
- 12 Replacement of gaskets.
- 13 Meggering of control, power buses.
- 14 Meggering of all transformers.
- 15 Checking of thermostats/ space heaters.
- 16 HV test if required by E-I-C
- 17 Replacement of missing components.
- 18 Checking of inter panel wiring.
- 19 Sealing holes / opening by Aluminum foil / sealastic.
- 20 Any other job as required

## **E) MAINTENANCE OF POWER TRANSFORMERS**

- 1 Checking of oil level in Buchholz relay, conservator and tank.
- 2 Topping of oil if required.
- 3 Checking of colour of breather and replacement of silica gel if required.
- 4 Inspection of transformer accessories and piping
- 5 Attending the leakage by tightening the joints / replacing 'O' ring/ Gaskets/ Washers etc.
- 6 Examination of bushing for cracks/ Dirt and oil leakage.
- 7 Examining and cleaning of bushings.
- 8 Replacement of damaged / faulty components.
- 9 Checking the transformer oil for dielectric strength.
- 10 Coordinating and assistance for oil filtration.
- 11 Checking of contactors/ interlocks/ tightness of wiring for marshalling Kiosk.
- 12 Maintenance of cooler fan bearings, lubrication etc.
- 13 Checking of off/ on load tap changer mechanism limit switches.
- 14 Assistance for tan d, capacitance, DGA and other to special test to be carried out at independent laboratories.
- 15 Sealing of holes in cable box.
- 16 Checking of OTI /WTI/BUCKOLZE/PRD, Alarm, protections ckecking.
- 17 Rectification of wiring.
- 18 Checking of oil level in OTI/WTI pockets.



- 19 Checking of earthing tightness after Measurement of earth pit resistance of body & neutral earth pits.
- 20 Checking of IR value of motors, vibrations and noise, carrying out drying out and balancing if required.
- 21 Checking and inspection of all the tank, accessories, paint, touch-up if required.
- 22 Replacement of any gaskets.
- 23 Checking the contacts for burning and putting marks on director switch of OLTC.
- 24 Assistance in filtration of director switch oil.
- 25 Checking tightness of bushing top connectors.
- 26 Through cleaning of transformer body.
- 27 Any other job as required

## F) 220 KV ISOLATOR / EARTH SWITCH MAINTAINANCE

- 1 Cleaning of salt/dust deposition on the surface of the isolators. Spraying anti tracking spray as & when required.
- 2 Checking of contacts for alignment, any abnormality, contact pressure.
- 3 Lubrication of the contacts.
- 4 Contact resistance measurement, if required as direc
- 5 Checking of motors/lubrication of the mechanism.
- 6 Conduct mili volt test on contacts, if directed by E-I-C.
- 7 Checking of simultaneous closing of all contacts and complete contact making in closed. Alignment to be done if disturbed.
- 8 Checking of all interlocks.
- 9 Tightness of all control cabling
- 10 Tightness of all connections (Power & Structure).
- 11 Checking and setting of limit switches if required.
- 12 Space heater circuit checking.
- 13 Any other job as required.

#### **G) 220 KV CIRCUIT BREAKER MAINTAINANCE**

- 1 Cleaning of Insulators.
- 2 Cleaning of air receiver.
- 3 Cleaning of switch cubicle.
- 4 Greasing/Oiling whereas required.
- 5 Cleaning/Replacement of filters.
- 6 Check breaker opening/closing times and simultaneous contact making test.
- 7 Check the tripping/closing coils.
- 8 Check/Test heater circuits.
- 9 Check breaker operation electrically/mechanically.
- 10 Check trip circuit.
- 11 Check contact resistance
- 12 Checking of interlocks/controls indications.
- 13 Calibration of meters/gauges/switches
- 14 Check relay operation/electrical connections.
- 15 Measure insulation resistance of breakers.



- 16 Filling SF6 gas if required.
- 17 Attending leakage if observed.
- 18 Check terminal blocks/terminal tightness.
- 19 Checking of earthing connection / busbar tightness.
- 20 Tightness of all structural & power connection.
- 21 Air piping to be checked for leakage and is to be attended if any.
- 22 Replacement of compressor motor in case of failure.
- 23 Any other job as required

#### H) VOLTAGE TRANSFORMER MAINTENANCE

- 1 Checking and cleaning of insulators.
- 2 Checking/Sealing of secondary terminal box with gaskets.
- 3 Checking and prevention of oil leakage.
- 4 Checking earth and HV connections.
- 5 Checking connection tightness
- 6 Check pressure diaphrGM for EMVT.
- 7 Check IR value.
- 8 Measurement of Capacitance/TAN d with external agency
- 9 Checking of aging behavior.
- 10 Tightness of power & structural connection.
- 11 Any other job as required

## I) CURRENT TRANSFORMER MAINTAINANCE

- 1 Cleaning of insulators.
- 2 Sealing of secondary terminal boxes with gaskets, terminal tightness.
- 3 Checking of earthing connection.
- 4 Checking terminal tightness and corrosion if any.
- 5 Checking and behavior of oil leaks.
- 6 Checking of IR Values.
- 7 Measurement of Capacitance/TAN d with external agency
- 8 Tightness of power & structural connection.
- 9 Any other job as required

#### J) POST INSULATOR MAINATAINANCE

- 1 Check and clean the insulators. Spraying anti tracking spray as & when required
- 2 Check earthing connection.
- 3 Check of IR values.
- 4 Any other job as required

## K) LIGHTNING ARRESTOR MAINTAINANCE

- 1 Check and clean arrestor housing insulator.
- 2 Check leakage current monitor. Replacement if required
- 3 Check resistance of ground connection/earthing.



- 4 Tightness of power & structural connection.
- 5 Check of IR values.
- 6 Any other job as required

## L) MARSHALLING PANEL MAINATAINANCE

- 1 General cleaning of panels, relays and contactors.
- 2 Check all contacts for abnormality.
- 3 Check control circuits/interlocks.
- 4 Check tightness of terminals.
- 5 Check for ingress of water/dust if any.
- 6 Replacement of gaskets if required.
- 7 Relay testing and replacement if found faulty.
- 8 Any other job as required

#### M) WAVE TRAP MAINATAINANCE

- 1 Check over voltage arrestors.
- 2 Check bolt tightness.
- 3 Check end ring insulation.
- 4 Check and clean support insulators.
- 5 Any other job as required

#### N) CLAMPS/CONNECTORS/CORONA RINGS/ INSULATOR MAINTENANCE

- 1 Checking for abnormality
- 2 Checking tightness/status of jumpers.
- 3 Cleaning string insulators.
- 4 Checking of tightness of clamps/connectors.
- 5 Joint of conductor to be replaced in case of failure.
- 6 Replacement of clamps if required.
- 7 Replacement of string insulation if required.
- 8 Any other job as required

#### O) EARTHING MAINTAINANCE

- 1 Tightness of connection.
- 2 Earth resistance measurement of earth mat.
- 3 Measurement of resistance of earth pit.
- 4 Tightness of bolts/joints. Replacement of nut bolts if found rusted
- 5 Checking of earth connection.
- 6 Any other job as required

## P) MAINTENACE OF BUSDUCT

- 1 Meggering of bus duct
- 2 Checking of insulators.
- 3 Blowing of hot air equipments.
- 4 Checking of flexible tightness.



- 5 CT wiring checking and tightness
- 6 Cleaning of NGR/NGT
- 7 Meggering of NGR/NGT
- 8 Replacement of bushing gaskets.
- 9 Replacement of damaged components.
- 10 Joint tightness and sealing.
- 11 HV Test
- 12 Checking of earthing connections/ continuity.
- 13 Replacement of weak insulators.
- 14 Any other job as required

## Q) MAINTENANCE OF ACTUATORS

- 1 Setting of limit switch, torque switches.
- 2 Cleaning of torque switch, limit switch gears.
- 3 Replacement of faulty parts.
- 4 Tightness of power and control cables.
- 5 Checking preventive of oil leakage, topping of oil.
- 6 Greasing of limit switch mechanism.
- 7 Meggering
- 8 Measurement of winding resistance
- 9 Sealing of Crack, holes.
- 10 Sealing of motor terminal boxes.
- 11 Replacement of gaskets
- 12 Check for hand wheel operation during manual and during auto operation
- 13 Drying out of motors having low insulation resistance value.
- 14 Any other job as required

## R) MAINTENANCE OF DC SYSTEM

#### A. Battery

- 1 Cleaning of batteries, stand, vent plug, insulators of battery.
- 2 Applying of petroleum jelly on battery terminals as and when required
- 3 Measurement of specific gravity, voltage and temperature of cells.
  - \* Frequency in such a way that measurement cycle per set is completed within 30 days.
- 4 Replacement of batteries, containers, battery cables/links, vent plug/level indicator and any other portion of battery whenever required.
- 5 Checking of battery voltage and current.
- 6 Checking of terminal connection tightness.
- 7 Topping of battery with Distilled water as and when required.
- 8 Reporting of abnormalities to the engineer in-charge.
- 9 Monitoring condition of exhaust fan, lighting, battery condition including leakage, water tap availability.
- 10 Cable tightness check.



- 11 Lighting/Exhaust fan system monitoring.
- 12 Replacement of battery stand as and when required.
- 13 Any other job as required.

#### **B.** Chargers

- 1 Cleaning of panel by air blower than manual cleaning.
- 2 Tightness of power, control circuits
- 3 Tightness of external connections.
- 4 Checking of fuses, power contactor, control contactors, BMRs.
- 5 Functional checking of control circuit
- 6 Bus bar tightness checks.
- 7 Replacement of faulty parts.
- 8 Meggering
- 9 Boosting charging of partially discharged battery as and when required.
- 10 Replacement of gaskets.
- 11 Door alignments.
- 12 Sealing of top cable entries.
- 13 Any other job as required

#### S) MAINTNANCE OF EARTHING SYSTEM

- 1 Checking for continuity of earthing
- 2 Regular checking of earth electrodes test pits.
- 3 Regular watering of test pit, earth electrodes.
- 4 Addition of charcoal/ salts if required.
- 5 Measurement of earth resistance.
- 6 Connection of earthing of equipment to the grid whenever it's found disconnected, including welding.
- 7 Checking of continuity of lightning arrestors up to the earth pit.
- 8 Alignment, mounting of vertical air termination.
- 9 Any other job as required.

## T) MAINTENANCE OF MISCELLANEOUS PANELS

- 1 Cleaning
- 2 Tightness of power cables, bus bar, control cables, external cabling.
- 3 Checking for fuses, components.
- 4 Earthing tightness.
- 5 Replacement of gaskets.
- 6 Checking of power, Control transformers.
- 7 Replacement of damage/ faulty components.
- 8 Tightness / alignment of panel doors.
- 9 Checking of contactor kits power contactors, MCBS, CTS, switches etc.
- 10 Functional checking of panel.
- 11 Meggering of control / power circuit.



12 Any other job as required.

## **U) MAINTENANCE OF SUMP PUMPS**

- 1 Check the tightness of control/power cables in the system.
- 2 Check the interlocks in the system for correction.
- 3 Check and replace the oil in the pump if necessary.
- 4 Check and replace the damaged parts of the pump.
- 5 Check for availability of earthing connection and its tightness.
- 6 Cleaning of strainers.

## V) MAINTENANCE OF HOISTS- CRANES

- 1 Checking healthiness of DSL, insulators and their cleaning.
- 2 Check and clean the auxiliary control panels.
- 3 Check and clean contactors, power contacts.
- 4 Check for tightness of control / power cables.
- 5 Checking of interlocks, limit switches, safety switches installed in the systems.
- 6 Check/ clean pendent switches.
- 7 Meggering of DSL, Cables, motors in the system.
- 8 Replacement of faulty/ damaged components.
- 9 Checking for the healthiness of the resistance in the system.
- 10 Lubrication of bearings in the system motors.
- 11 Check and clean the isolating switch contacts.
- 12 Check healthiness of the control transformers, auxiliary transformers in the system.
- 13 Check healthiness of space heaters of motors used in the system.
- 14 Check and replace the control/ power fuses in the systems.
- 15 Check for availability of earthing and its tightness.
- 16 Checking/ cleaning of PB station, tightness of terminals/ Cables, cleaning of contacts.
- 17 Any other job as required

## W) MAINTENANCE OF EX-FANS, ROOF EXTRACTION FANS

- Cleaning of fan/motor assembly.
- 2 Lubrication of bearings.
- 3 Fan blade tightness checking.
- 4 Checking of terminals- cleaning, tightness, and replacement of burnt out terminals.
- 5 Checking of availability/ tightness of earthing.
- 6 Alignment of fan blade with respect to shaft.
- 7 Checking of starters of exhaust fan for
  - a.) Correctness of starter, its thermal settings.
  - b.) Cleaning of starter contacts.



- c.) Tightness of cables, connections.
- d.) Cleaning of starter from inside.
- e.) Availability, tightness of earthing.

# X) ELECTRICAL MAINT. WORKS AT BODHAN / PATANA PUMP HOUSE (16Km FROM PLANT)

1 Electrical maintenance of HT & LT motors / transformers / HT & LT panels/ breakers / DP structure/Battery & charger etc as per schedule.

## Y) ELECTRICAL MAINT. WORKS AT SOLAR PLANT (7 Km FROM PLANT)

1 Electrical maintenance of HT & LT transformers / HT & LT panels/ breakers /11KV & 66 KV switchyard, invertors, Battery & charger etc as per schedule (to be done after 17:30 hours).

## Z) Other jobs required to maintain the system in healthy condition

- 1 Attending to fault/defects & breakdown jobs etc.
- 2. Removal / laying of different size power & control cables, their glanding & termination as per requirement.
- 3. Erection / removal of all the type panels, JBs, MK etc including all the accessories as and when required
- 4. Erection / removal of motors, Transformers, actuators & other electrical equipments including all the accessories as and when required
- Providing supply to welding machines and other electrical equipment as & when required
- 6. All the modification jobs required for system
- 7. Other the other job required for healthiness of the system & plant

The list of equipments with tentative quantity for two year is enclosed herewith as Price schedule A1 to A5.

<u>B.</u> Lignite & Lime stone handling & milling, external Lignite handling system at Mangrol mines end, Ash handling system (Package-B).

## 1) PREVENTIVE / DEFECT MAINTENANCE OF ELECTRICAL EQUIPMENTS

All Electrical Equipments of following systems is included for Preventive Maintenance / Defect Maintenance/Overhauling/Servicing as indicated and included in the Price schedule-Electrical, Annexure- (Preventive & Defect):-

- a) Lignite Handling System
- b) Limestone handling System
- c) Limestone Milling System.
- d) Ash handling System



- e) ELHS (mines end)
- f) Maintenance of lighting system of entire Lignite Handling, Limestone Handling, Limestone Milling System including weigh bridge at Gate No. 4, Ash Handling System and Ash Water Recovery System & ELHS (Plant end & Mines end).
- g) Ventilation system of following Switchgear rooms:
  - i) Lignite & Limestone handling Switchgear room
  - ii) Lignite mining Switchgear room
  - iii) Bunker lignite MCC room
  - iv) PCH MCC room
  - v) Battery charger & Battery room of Lignite & Limestone handling Switchgear room and Ventilation system of various conveyor tunnels.
  - vi) Ash Handling MCC room.
  - vii) Ash Water Recovery MCC room.
- h) Air conditioning plant, Air compressor & its cooling towers of entire Lignite handling, Limestone handling & Milling plants & Ash handling plants & ELHS (Mines end).
- Battery chargers/ Battery sets/ of Lignite handling System and Fire fighting system near gate no.4 & recovery MCC. Also Electrical drives i.e. booster pump pertaining to Fire Fighting system is included
- j) Earthing network of Lignite handling, Limestone handling plant, Limestone milling plant, Ash handling plant & ELHS (Mines end).
- k) All equipments of Lignite run off pond.
- I) All equipments of Feeder breaker System, ELHS (Mines end).
- m) 6.6 KV/415 V distribution transformers of Lignite & limestone handling and at Mines site office& ELHS (Mangrol Mines end).
- n) All equipments of Dust Extraction System.
- o) All equipments of Dry fog / Dust suppression System
- p) All equipments of Industrial Vacuum System.
- q) All equipments pertaining to Zero Discharge System.

## 2) RESPONSIBILITIES DURING SHIFT MAINTENANCE.

- a) Since it is a continuous running plant, contractor should ensure deployment of one Diploma Engineer & One ITI Electrician (SK) each per shift (B & C) for smooth, safe and defect free running of the system.
- b) It shall be responsibility of contractor that no protection/ sequential/ process interlocks are bypassed to keep the equipments operational. In case of emergency, which calls for bypassing of certain interlocks, due permission has to be obtained from GIPCL Shift in-charge followed with proper logging in the By-pass Register maintained in the Control Room.
- c) All works carried out in the shift should be properly logged in the shift logbooks. Details of Interlocks bypassed should be entered in the log book.
- d) All support in terms of resources/ assistance should be extended to Shift Electrical maintenance group in case of **critical defects** affecting the system running without any additional cost. Critical defects/breakdown occurring in shift which directly affect system availability / lignite bunkering/Ash handling need to be attended immediately for which all support of required manpower should be made available from General maintenance group without any additional cost.



e) It is expected that shift maintenance group works in close co-ordination with Operation personnel to meet the system requirements immediately, for which their movement within the plant should be informed from time to time to the Control Room Engineer.

The details of maintenance work to be carried out are below:-

## MAINTENANCE OF HT/ LT MOTORS

- 1 Check tightness of terminal connections.
- 2 Check availability of plain, spring washers and replace if necessary.
- 3 Check healthiness of space heater. Measure space heater resistance and current
- 4 Tightness of cooling fan & fan cover, replacement if required.
- 5 Lubrication/ greasing of the bearings.
- 6 Check for availability / tightness of earth connections.
- 7 Tightness of foundations bolts.
- 8 Cleaning of cooling tubes of the motor
- 9 Winding resistance measurement
- 10 Megger value for motors.
- 11 Sealing of cable at terminal box of space heater, main cable box.
- 12 Checking of speed switch connections.
- 13 Checking healthiness of speed switch controller (Whenever applicable).
- 14 Cable support tightness.
- 15 Checking of cable if disconnected.
- 16 Replacement of gaskets of motor terminal box if applicable
- 17 Drying out of motors having low insulation resistance value.
- 18 Removal/ replacement of damaged motor TB.
- 19 Fan cover removal & re-installation if required for Instruments checking
- 20 Replacement of bearings if required.
- 21 Any other job as required

#### **B) MAINTENANCE OF LT FEEDERS**

- 1 Checking of power contactor kits, cleaning, replacement if needed.
- 2 Tightness of power and control cables.
- 3 Cleaning of modules with blower.
- 4 Checking of BMR setting
- 5 Correctness of fuses
- 6 Replacement of damaged components & blown fuses.
- 7 Module alignment.
- 8 Checking, rectification and alignment of module.
- 9 Checking of shorting links.
- 10 Cleaning and greasing of sliding surfaces for draw out type modules.
- 11 Testing of module in test position/ service position for functional checks.
- 12 Tightness and dressing of external cabling in the cable alley.
- 13 CT/PT wiring checks



- 14 Tightness checking, mounting, earthing checking of PB station, replacement of Components if required.
- 15 Any other job as required

## C) MAINTENANCE OF SF6/VACUUM / AIR CIRCUIT BREAKERS

- 1 Checking of vacuum / SF6 gas pressure.
- 2 Filling SF6 gas if required.
- 3 Attending leakage (SF6)
- 4 Cleaning of breaker compartment, metering and control circuit compartment.
- 5 Checking of alignment of breaker and necessary rectification.
- 6 Cleaning and application of petroleum jelly at contacts.
- 7 Checking/alignment of test / service position switches.
- 8 Checking/ alignment / rectification of breaker rack in rack out mechanism.
- 9 Checking/Replacement of spring charging motor, servicing of spring charging motors.
- 10 Mechanical setting for closing/ trip coils.
- 11 Replacement of damaged rollers.
- 12 Replacement of damaged components of breakers.
- 13 Tightness and dressing of wiring.
- 14 Tightness of external power cable, earthing lead.
- 15 Sealing of cable compartment.
- 16 Function checking in test / service position, local/ remote position.
- 17 Replacement of faulty components-like indicating lamps, meters.
- 18 Checking of control fuses, fuse bases, replacement of fuses, fuse bases.
- 19 Alignment checking of breaker control plug.
- 20 Tightness checking mounting earthing, checking of PB stations, replacement of components if required.
- 21 Any other job as required

#### D) MAINTENANCE OF HT/ LT BOARDS / UPS & VFD PANELS

- 1 Removal of bus bar compartment cover and through cleaning by hots air blower/ clothes/ all compartment covers.
- 2 Bus bar tightness with torque wrench.
- 3 Physical check of bus bar support insulators, CTs, PTs, replacement if required
- 4 Cleaning / tightness checking of control bus bars.
- 5 Cleaning / tightness checking of cable alleys.
- 6 Tightness/ Meggering of cable termination
- 7 Continuity and tightness of earthing connections.
- 8 Cleaning/tightness of control transformer modules, bus LT modules, line PT modules.
- 9 Bus PT module alignment.
- 10 Checking of all spare feeders.
- 11 Door fixing / alignment.
- 12 Replacement of gaskets.
- 13 Meggering of control, power buses.
- 14 Meggering of all transformers.
- 15 Checking of thermostats/ space heaters.



- 16 HV test if required by E-I-C
- 17 Replacement of missing components.
- 18 Checking of inter panel wiring.
- 19 Sealing holes / opening by Aluminum foil / silastic.
- 20 Any other job as required
  - 1.1. Checking the healthiness of gaskets, nuts, bolts, fittings.
  - 1.2. Cleaning of the glasses.
  - 1.3. Cable termination tightness checking and gland checking.
  - 1.4. Checking of any damage to the cable or instruments.
  - 1.5. Zero calibration of the analyzer.
  - 1.6. Checking the availability of signal in the control room.
  - 1.7. Power supply checking.
  - 1.8. Checking of setup parameters.

#### **E) EARTHING MAINTAINANCE**

- 1 Tightness of connection.
- 2 Earth resistance measurement of earth mat.
- 3 Measurement of resistance of earth pit.
- 4 Tightness of bolts/joints. Replacement of nut bolts if found rusted
- 5 Checking of earth connection.
- 6 Any other job as required

## F) MAINTENACE OF BUSDUCT

- 1 Meggering of bus duct
- 2 Checking of insulators.
- 3 Blowing of hot air equipments.
- 4 Checking of flexible tightness.
- 5 CT wiring checking and tightness
- 6 Cleaning of NGR.
- 7 Meggering of NGR.
- 8 Replacement of bushing gaskets.
- 9 Replacement of damaged components.
- 10 Joint tightness and sealing.
- 11 HV Test
- 12 Checking of earthing connections/ continuity.
- 13 Replacement of weak insulators.
- 14 Any other job as required

#### G) MAINTENANCE OF ACTUATORS

- 1 Setting of limit switch, torque switches.
- 2 Cleaning of torque switch, limit switch gears.
- 3 Replacement of faulty parts.
- 4 Tightness of power and control cables.
- 5 Checking preventive of oil leakage, topping of oil.



- 6 Greasing of limit switch mechanism.
- 7 Meggering
- 8 Measurement of winding resistance
- 9 Sealing of Crack, holes.
- 10 Sealing of motor terminal boxes.
- 11 Replacement of gaskets
- 12 Check for hand wheel operation during manual and during auto operation
- 13 Drying out of motors having low insulation resistance value.
- 14 Any other job as required

## H) MAINTENANCE OF DC SYSTEM

## A. Battery

- 1 Cleaning of batteries, stand, vent plug, insulators of battery.
- 2 Applying of petroleum jelly on battery terminals as and when required
- 3 Measurement of specific gravity, voltage and temperature of cells.
  - \* Frequency in such a way that measurement cycle per set is completed within 30 days.
- 4 Replacement of batteries, containers, battery cables/links, vent plug/level indicator and any other portion of battery whenever required.
- 5 Checking of battery voltage and current.
- 6 Checking of terminal connection tightness.
- 7 Topping of battery with Distilled water as and when required.
- 8 Reporting of abnormalities to the engineer in-charge.
- 9 Monitoring condition of exhaust fan, lighting, battery condition including leakage water tap availability.
- 10 Cable tightness check.
- 11 Lighting/Exhaust fan system monitoring.
- 12 Replacement of battery stand as and when required.
- 13 Any other job as required.

#### B. Chargers

- 1 Cleaning of panel by air blower than manual cleaning.
- 2 Tightness of power, control circuits
- 3 Tightness of external connections.
- 4 Checking of fuses, power contactor, control contactors, BMRs.
- 5 Functional checking of control circuit
- 6 Bus bar tightness checks.
- 7 Replacement of faulty parts.
- 8 Meggering
- 9 Boosting charging of partially discharged battery as and when required.
- 10 Replacement of gaskets.
- 11 Door alignments.
- 12 Sealing of top cable entries.
- 13 Any other job as required.



#### I) MAINTENANCE OF HOISTS- CRANES

- 1 Checking healthiness of DSL, insulators and their cleaning.
- 2 Check and clean the auxiliary control panels.
- 3 Check and clean contactors, power contacts.
- 4 Check for tightness of control / power cables.
- 5 Checking of interlocks, limit switches, safety switches installed in the systems.
- 6 Check/ clean pendent switches.
- 7 Meggering of DSL, Cables, motors in the system.
- 8 Replacement of faulty/ damaged components.
- 9 Checking for the healthiness of the resistance in the system.
- 10 Lubrication of bearings in the system motors.
- 11 Check and clean the isolating switch contacts.
- 12 Check healthiness of the control transformers, auxiliary transformers in the system.
- 13 Check healthiness of space heaters of motors used in the system.
- 14 Check and replace the control/ power fuses in the systems.
- 15 Check for availability of earthing and its tightness.
- 16 Checking/ cleaning of PB station, tightness of terminals/ Cables, cleaning of contacts.
- 17 Any other job as required

## J) MAINTENANCE OF EX-FANS, ROOF EXTRACTION FANS

- 1 Cleaning of fan/motor assembly.
- 2 Lubrication of bearings.
- 3 Fan blade tightness checking.
- 4 Checking of terminals- cleaning, tightness, and replacement of burnt out terminals.
- 5 Checking of availability/ tightness of earthing.
- 6 Alignment of fan blade with respect to shaft.
- 7 Checking of starters of exhaust fan for
  - a.) Correctness of starter, its thermal settings.
  - b.) Cleaning of starter contacts.
  - c.) Tightness of cables, connections.
  - d.) Cleaning of starter from inside.
  - e.) Availability, tightness of earthing.
- 8 Any other job as required.

#### Other jobs required to maintain the system in healthy condition

- 1. Attending to fault/defects & breakdown jobs etc.
- Removal / laying of different size power & control cables, their Glanding & termination as per requirement.
- 3. Erection / removal of all the type panels, JBs, MK etc including all the accessories as and when required

E-Tender for "Biennial contract for Maintenance of Entire Electrical Systems for 4 x 125 MW Surat Lignite Power Plant, 5 MW &1 MW Solar Plant and colony for years 2023-25". Bid No.: SLPP/BMC/ELECT/23-25.



- 4. Erection / removal of motors, Transformers, actuators & other electrical equipments including all the accessories as and when required
- 5. Providing supply to welding machines and other electrical equipment as & when required
- 6. All the modification jobs required for system.
- 7. Other the other job required for healthiness of the system & plant

The list of equipments with tentative quantity for two year is enclosed herewith as Price schedule B1 to B4.



## (C) MAIN PLANT, SOLAR PLANT, COLONY LIGHTING SYSTEM (PACKAGE - C)

# Detailed Scope of Work for Main plant, solar plant, Bodhan & Patna pump house and colony Lighting system is

#### A. ATTENDING DEFFECTS OF LIGHTING FIXTURES

- 1. Identification & rectification of lighting fixtures not glowing in a particular circuit and fault tracing.
- 2. Cleaning of all the lighting fixture parts.
- 3. Checking of tightness of terminal connections in fixture, control gear box.
- 4. Checking of availability / tightness of earth connections.
- 5. Checking & rectification of mounting arrangement of lighting fixture for adequate strength and required hardware.
- 6. Sealing of holes if any.
- 7. Replacement of gaskets if required.
- 8. Checking of healthiness of lighting components.
- 9. Removal/ replacement of damaged parts.

## B. <u>ATTENDING DEFFECTS OF EXHAUST, CEILING & WALL MOUNTING</u> FANS.

- 1. Cleaning of fan/motor assembly.
- 2. Lubrication of bearings & varnishing.
- 3. Fan blade tightness checking.
- 4. Checking of terminals- cleaning, tightness, and replacement of burnt out terminals.
- 5. Checking of availability/ tightness of earthing.
- 6. Alignment of fan blade with respect to shaft.

## C. PM OF LIGHTING PANELS, LIGHTING DISTRIBUTION BOARDS & HT/LT PANELS.

- 1. Cleaning of lighting panels, LDBs & HT/LT Panels.
- 2. Cleaning of MCBs, ELCB/ RCCBs, contactors, timers, meters in lighting panel, LDBs & HT/LT Panels.
- 3. Checking healthiness of ELCB/ RCCBs by simulation.
- 4. Checking tightness of incoming & outgoing cables to the panel and retermination and re-glanding if required.
- 5. Cleaning of busbar section & proper sealing to make the same dust & vermin proof.
- 6. Checking of bus bar insulators and making needful rectification.
- 7. Providing sheds/ covering by polythene sheets / application of aluminum adhesive foil to protect lighting panels from water dripping from any source.
- 8. Fixing of aluminum sheets on lighting panels wherever acrylic transparent sheets are found broken.



- 9. Sealing of openings in cable alley and gland plates.
- 10. Checking of isolator handle operation (on/off) and replacement of the same, if not in order.
- 11. Checking & rectification of alignment of panel door hinges.

## D. <u>ATTENDING DEFFECTS OF 1-PH RECEPTACLES</u>

- 1. Checking for availability /broken handles and replacement.
- 2. Tightness of cable termination.
- 3. Cleaning of receptacle body (internal & external)
- 4. Checking for availability of receptacle outlet cover and its retaining chain and replacement if necessary.
- 5. Checking of availability of voltage with circuit on and logging of voltage at each outlet.
- 6. Checking and rectification of fault in a particular receptacle circuit.
- 7. Earthing tightness to each receptacle to be checked and providing the same if missing.

## E. ATTENDING DEFFECTS OF 3-PH RECEPTACLES

- 1. Checking for availability /broken handles and replacement.
- 2. Tightness of cable termination.
- 3. Cleaning of receptacle body (internal & external)
- 4. Checking for availability of receptacle outlet cover and its retaining chain and replacement if necessary.
- 5. Checking of availability of 3-ph voltage with circuit on and logging of voltage at each outlet.
- 6. Checking and rectification of fault in a particular receptacle circuit.
- 7. Checking of loop in & loop out cable for proper termination.
- 8. Checking correctness for rating & healthiness of fuses in individual receptacles and needful rectification.
- 9. Checking availability of all cover bolts and gaskets and providing the same if missing.
- 10. Earthing tightness to each receptacle to be checked and providing the same if missing.

## F. ATTENDING DEFFECTS OF LIGHTING CIRCUITS

- 1. Checking & restoring healthiness of individual lighting circuit fed from the lighting panel.
- 2. Rectification of the lighting fixtures detected not glowing, during preventive maintenance.
- 3. Proper sealing of pull boxes, elbow bends by plaster of Paris/aluminum foil if necessary.
- 4. Checking of tightness & rectification of clamping of lighting conduits on supports.
- 5. Tightening of adapter nipple to ensure proper strength to lighting conduit.



6. Clamping of flexible conduit between lighting fixture and rigid conduit to ensure that the lighting wires are not exposed.

#### G. OTHER MISCELLANEOUS JOBS

- 1. Erection / removal of all the type of lighting fittings including all the accessories as and when required.
- 2. Erection / removal of all type of receptacles, switches, switch box etc. including all the accessories as and when required.
- 3. Erection / removal of Complete distribution board including internal wiring and cabling.
- 4. Erection / removal of all type of fans including all the accessories as and when required.
- 5. Erection / removal of all type of junction boxes, lighting panels and lighting distribution boards including all the accessories as and when required.
- 6. Erection / removal of all type of lighting transformers / panels including all the accessories as and when required.
- 7. Erection / removal of 1 Ph & 3 Ph energy meters as and when required.
- 8. Erection / removal of GI conduits, flexible conduits, PVC rigid conduits, GI chains, flexible conduits, casing capping etc. including all the accessories as and when required.
- 9. Erection / removal of GI & MS channels, angles and flats for lighting equipments as and when required.
- 10. Daily area checking for proper illumination and daily area wise lighting status recording and reporting to EIC.
- 11. Minor civil work, lubrication work etc. for proper lighting system as directed by engineer in-charge.
- 12. Removal / laying of different size power & control cables, their glanding & termination as per requirement.
- 13. Providing temporary lighting at various locations as per requirement.
- 14. Providing supply to welding machines and other electrical equipment as & when required.

The list of equipments with tentative quantity for two year is enclosed herewith as Price schedule C1 & C2.

## 1.1 SPECIFIC REQUIREMENT OF CONTRACT

(A) Timely completion of all jobs and works shall be the essence of this Contract. Contractor should closely monitor each activities such as preventive maintenance, break down and 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 qualified & experience manpower is deployed for the same.



- (B) The contractor has to complete the preventive maintenance (PM) 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. Contractor must carry out the Preventive maintenance jobs as per the equipment PM check sheet provided by the GIPCL, also after completion of the PM jobs; this duly filled PM check sheet is to be submitted duly signed to Engineer in charge.
- (C) The contractor has to submit daily reports showing maintenance work carried out spare parts/ consumables etc. replaced.
- (D) One no. Utility vehicles are to be kept for maintenance activity as per tender guideline. Only utility vehicle is allowed equivalent to Mahindra Bolero Camper (Double Cab + cargo pick up), TATA Xenon (Double Cabin + cargo pick up) having more than 60 HP power and space for 05 person sitting & shifting spares/Motor etc.. Vehicle should not be older than four years during entire contract period.
- (E) The Contractor shall provide 03 (Three) pairs of good quality stitched uniform to their workmen deployed at GIPCL, SLPP site once in year within one month from the date of commencement of contract. Failing in which appropriate penalty will be imposed.
- (F) Communication equipment like mobile phone is to be provided to all responsible persons like site in charge and all engineers/supervisors. Any change in communication mode/number is to be intimated in writing to engineer in charge.
- (G) All the general tools & tacked shall be brought and maintained by contractor. Special tools & tackles and testing /measuring instrument shall be provided by GIPCL. The contractor should ensure that tools are in healthy condition all the time.
- (H) If any equipments or part are found damaged due to negligent / faulty maintenance the equipment cost of such damages shall be recovered from the contractors monthly bill/retention money/security deposit.
- (I) The contractor shall have to collect the spares, lubricant etc in required quantity duly approved by GIPCL Engineer whenever necessary from GIPCL store / warehouse. Contractor shall have to arrange transportation for above. The cost of transportation will be on contractor's account. The contractor is responsible for safe transportation, handling and storage. If equipment fails due to improper lubrication or intermixing, the cost of such damages shall be recovered from contractor bills. It is the responsibility of contractor to keep various lubricants separately to avoid intermixing. The failure /defects of equipment due to improper method of maintenance, equipment assembly due to contractor negligence, the losses will be recovered from contractors bills.



- (J) In case of breakdown of equipment, the contractor should work round the clock if required for putting back the equipment in services immediately within minimum time.
- (K) Contractor shall nominate /authorize a person and communicate to the GIPCL in writing as Site in charge & assistant site incharge cum supervisors. They shall co-ordinate with GIPCL engineer and bears overall responsibility of contract. Such persons shall function from site office of contractor at SLPP.
- (L) 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.
- (M) Engineer in charge or his authorized representative may do inspection of work at any time. If the work is not found satisfactory, engineer in charge reserves the right to take suitable action.
- (N) <u>Breakdown of the plant</u>: In the event of breakdown of the plant leading to a likely shut down of more than one month, the following shall be applicable:
  - I. GIPCL shall give a notice to the contractor for demobilization.
  - II. Payment to the full shall be made for a period of one month and a prorate payment to the extent of demobilization staff should be made thereafter.
  - III. 15 days notice will be given to the contractor before the precommencement of the plant for remobilization of the plant.
  - IV. During the period of one month when the plant will be rendered idle, GIPCL will have right to utilize their services in any other manner as deemed fit by GIPCL.
  - V. Contractor shall not be eligible for any compensation for demobilization and remobilization.
- (O) Arrangement for lighting at the work spot while carrying out maintenance activities has to be made by the contractor. He has to arrange all lighting equipments such as power cable, hand lamps etc. The contractor has to take prior approval for taking electrical power supply.
- (P) One or more jobs may be required to be done simultaneously and contractor shall mobilize additional resources accordingly.
- (Q) Monthly/quarterly reconciliation of material / spares issued by GIPCL to the contractor shall be done and record to be maintained by the contractor. All the scrap generated should be disposed off to the scrap yard or any other designated place as instructed by Engineer In Charge for which no separate payment will be made by GIPCL.



- (R) <u>Defect liability period</u>: The defect liability period for respective job shall be maximum 6 months or the period between the two preventive maintenance frequencies of respective job as applicable. During defect liability period, if any defect arises in jobs which have been already executed, shall be rectified by the contractor free of cost.
- (S) The contractor has to complete the preventive maintenance (PM) as per the planning schedule and his respective site in charge shall interact with Engineer In charge for execution of the same. However, planning the preventive maintenance jobs will be done solely at the discretion of GIPCL. The preventive maintenance shall be done on all days including Sundays & holidays. No separate charges are payable for working in these days.
- (T) 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 as per manpower rates in price schedule for unforeseen jobs. No claim/ compensation by contractor shall be entertained by GIPCL towards non-carrying out of preventive maintenance jobs during such period, nor any minimum billing can be guaranteed.
- (U) Price and rates quoted, shall include cost of all consumables, (except free issue materials by GIPCL) labour, supervision, transport, uniform for all workman, taxes, octroi, local taxes and levies if any etc. and any such other costs as are not specifically mentioned herein, but may be incurred by the contractor for the satisfactory and timely completion of the work.
- (V) For planned shutdown / annual overhauling of units, contractor should be able to mobilize the required additional manpower ( around 10 nos for 20 days for each unit) to complete all the planned jobs within the shutdown period. The information of shutdown in such case shall be more than 3 days. However, if contractor fails to provide required manpower for shutdown /breakdown jobs in time, the preventive maintenance will be deferred by GIPCL during shutdown /major Breakdowns. The payment for the jobs not covered in the preventive/breakdown maintenance price schedules shall be paid as per the SOR man-day rates by the contractor for that cadre of workmen in the price bid. No claim/Compensation shall be entertained by GIPCL towards non-carrying out of preventive maintenance during such period. In case of breakdown of equipment, the contactor should work round the clock for putting back the equipment in service immediately within minimum time.
- (W) The contractor should ensure that all the PM activities planned is completed in the same day preferably within normal working hours between 08:30 Hrs to 17:30 Hrs for main plant. However for Solar plant most of the PM activities cab be taken up after 17: 30 hours only, after shutdown of the system.



- (X) Contractor shall make their own arrangement for transportation of manpower & spares within plant premises for attending all the maintenance activities. For which contractor may deploy vehicle to transport spares, minimum checking tools & instruments, especially for attending defects occurring any time during the day. However looking to the safety point of view of the power plant for major shipment of equipments & manpower GIPCL shall provide its own vehicle / Tractor. However all the requirements should be pre-planned so that the requirements can be fulfilled in time.
- (Y) The frequency of work indicated in the **Price Schedule** for Breakdown Maintenance/Miscellaneous job is tentative and is as per the past experience, repetitions of these are not expected in normal case and no minimum work can be guaranteed. As such payments will be made only for the Breakdown Maintenance /Miscellaneous Jobs carried out. No claim, whatsoever, will be entertained by GIPCL in case the frequency indicated is not carried out.
- (Z) It is necessary that contractor should have computer and printer at his cost at the site office in order to prepare neat daily work reports, material report & monthly billing etc..
- (AA) Contractor should mobilize all resources for efficient & smooth execution of contract within 15 days from the date of issue of Letter of Intent.
- (BB) To ensure reliable operation, only qualified and experienced personnel and supervisors shall have to be employed. All persons deputed for maintenance work shall be subject to GIPCL approval.
- (CC) Annual overhauling of each 125MW Unit shall be planned every year. The AOH period will be around 15-20 days. Additional manpower for same shall be deputed accordingly. All the PM works and shun down works should be completed well within this period as per shutdown planning.

#### 1.2 Performance Requirements:-

Following performance is expected from the successful bidder while executing the work:-

i. The percentage of Preventive maintenance achieved should be more than 95% of the total preventive maintenance planned in the month UNLESS any major breakdown has occurred and the manpower is diverted to attend the breakdown. However the penalty for non achievement of planned P.M. shall be applied on average of strike rate of 3 months, which allows for absorption of unforeseen breakdown & gives opportunity for improvement of strike rate. the threshold of P.M. frequency for application of penalty shall be 95% as per clause no. 20 (B)



- ii. All preventive maintenance activities shall be thoroughly supervised by a qualified Engineer and all checklist of preventive maintenance shall be filled in by the Engineer himself. Any defect observed during preventive maintenance but cannot be attended due to genuine reasons shall be mentioned in the checklist. The engineer supervising the job should ensure good quality of the work as per modern practices and should have multidisciplinary approach so as to suggest the possible measures in case certain abnormality is observed by him which may affect the satisfactory operation of equipment in future. It is expected that the engineer supervising the job gives prompt feedback to GIPCL Engineer –in charge regarding any abnormality observed so as to witness the same by him, before equipment box-up.
- iii. The contractor supervisor, supervising the work shall be responsible for ensuring the safety of the workmen and should see that all Workmen use proper safety gears for attending all jobs included in scope of work.
- iv. Contractor's supervisor / technician should ensure the isolation of equipment before starting the work. Work should be done as per standard procedure and check list.
- v. Minor welding jobs to suit the requirements of Electrical system to be carried out by Contractor as and when required.
- vi. RA Bill of the preceding month should be submitted by 5<sup>th</sup> day of the succeeding month.
- vii. Contractor should maintain the discipline at work place and time of reporting of workmen/Engineer for duty to be monitored and needful action to be taken in case of defaults.
- **viii.** Illumination & welding supply requirements of other maintenance agencies working is to be met timely, so that the maintenance works of the system is not adversely affected to reduce the system availability.
- **ix.** Power generation being essential services, maintenance activities shall be carried out on all the days including holidays / Sundays. As such, contractor has to deploy man power accordingly.

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 work in accordance with them

#### 1.3. PENALTY CLAUSE:-



A.	Non Availability of site In-charge (Package wise).	<ul> <li>A. After total Two days of unauthorized absence of site In-charge per Month, either continuous or separately, a penalty of Rs 1000/- per day shall be recovered. Penalty shall not be applicable for the first month of contract. Further One month recruitment period shall be allowed in case site in-charge / engineer resigns during contract execution.</li> <li>B. Deduction for non availability of site in charge shall be limited to ceiling limit of Rs. 30000/- per month.</li> <li>C. Sunday / PH shall be excluded from counting.</li> </ul>
В.	Less than 95 % achievement in completion of Preventive Maintenance work per quarter against Preventive Maintenance schedule issued by GIPCL without any justifiable reasons.	<ul> <li>A. Penalty if 95 % or more PM achieved per month - Nil.</li> <li>B. Penalty for PM achieved less than 95 %- @ Rs 2000.00 for every one percent reduction in preventive maintenance.</li> <li>C. Deduction for penalty due to short fall in PM shall be limited to Rs 15,000/- per month.</li> <li>D. The penalty shall not made applicable for the period of unit annual shutdown and intermediate long unit shutdown periods when majority of manpower is diverted for carrying out shutdown activities.</li> </ul>
C.	Deployment of Less Manpower in Shift maintenance.	<ul> <li>A. No deployment of manpower – no payment shall be done.</li> <li>B. In addition to nonpayment as above, penalty @ 0.25 times the rates accepted by GIPCL for respective category for Shift Maintenance / unforeseen works whichever is more shall be applied.</li> </ul>
D.	Improper Supervision  Deployment of less than 2 Engineers per day for supervision of Preventive maintenance work including Site In-charge	<ul> <li>A. 1.25 times the rate accepted by GIPCL for Engineer for Shift maintenance / Unforeseen works whichever is more. (excluding Sunday's &amp; PH)</li> <li>B. Deployment of two engineers will not be applicable for Sundays / and PH. However, on Sundays &amp; PH, one Engineer to be deployed instead of two engineers for supervision of maintenance activities. Failure to this shall attract penalty.</li> </ul>
Е	Delay in attending defect that occurred in shift maintenance beyond four working shifts for reasons attributable to contractor	Rs 200.00 per defect per day.



F	Shortage of tools & tackles	Rs 100.00 per day per Tools & tackles or GIPCL will issue the same and cost with overhead charges @25%
		shall be deducted from the contractor's bills .(10 Days shall be given for replenish the required tools tackles, after that penalty will be applicable)
G	Shortage of measuring & testing instruments	Rs 200.00 per day per measuring & testing equipment or GIPCL will issue the same and cost with overhead charges @25% shall be deducted from the contractor's bills. (10 Days shall be given for replenish the required measuring instruments, after that penalty will be applicable)
Н	Unsafe work	Rs 1000.00 per day per instant.
I	Damage to GIPCL equipments / machinery	A. Free Replacement / repair up to satisfaction of GIPCL OR 1.25 times cost of equipment GIPCL has incurred.
		B. Erection after repairs will be done by contractor without any extra cost to GIPCL.
J	Use of GIPCL vehicle for shifting man power for attending Preventive / Breakdown Maintenance work	1.25 times the cost incurred by GIPCL for particular route.
К	Liquidated Damages	In case of failure to adhere to the time schedule by contractor, penalty will be levied at the discretion of Engineer In Charge considering extent of delay in particular work. LD of 1 % of the contract value per hour for the delayed work shall be deducted from Contractor's bill subject to a maximum of 5% of the value of that particular work.
L	Improper housekeeping after completion of work.	1.25 times the cost incurred by GIPCL for particular Instant.
М	Unsatisfactory Work	Rs 1000.00 per instance.
	(Improper Maintenance)	
N	Violation of safety norms	The safety rules to be observed shall be as per attached annexure- B.
		For safety violations, penalties as mentioned in above annexure –B Shall be applicable.

#### 1.4 DISPOSAL OF MATERIAL

(A) The Contractor must ensure that all the generated scrap, cotton waste, waste oil, tools and tackles are removed from the site immediately 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 the stipulated time given by GIPCL



- Engineer, the scrap will be removed by GIPCL at the Contractor's cost with penalty and it will be deducted in the RA bill.
- (B) Hazardous waste like waste oil and oil/grease soaked cotton waste oil to be collected in separate container and then shift to the designated area as per the instruction of engineer in charge.
- (C) It is the responsibility of site incharge to segregate and remove the scrap from site. Work will be certified by GIPCL engineer only after removal of scrap to the scrap yard.

#### 1.5 SCOPE OF CONTRACTOR

- 1. All tools & tackles, tractors, required vehicles to execute the contract will be in the scope of the contractor. The contractor should ensure for healthiness/working conditions of tools, tackles & vehicles.
- 2. All safety/PPEs required during work at site are to be arranged by the contractor.
- 3. The Contractor shall have to provide necessary facilities including accommodation for their labor at their own cost.
- 4. Contractor has to depute their full time experienced overall site-in-charge & independent Location/Package wise supervisors for work execution as per specification and for day to day work planning & coordination with respective department's Engineer-in-charge, to obtain day to day Location/Package wise work permits, to get daily location wise work supervision, to record Location/Package wise joint work done reports/measurements/trip certification, to prepare Location/Package wise separate bills, to prepare & apply Location/Package wise manpower gate pass, to maintain Location/Package wise statutory & legal compliance records, etc.

#### 1.6 TO REMEDY DEFECTIVE WORK

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

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

#### 1.7 DAILY DIARY AND PROGRESS REPORT:

A daily diary register will be kept in the ENGINEER'S office. The CONTRACTOR will supply all detailed information every day at 9:00 hours for the day preceding and the diary will be jointly signed by the ENGINEER and the CONTRACTOR'S representatives, every day in token of its



correctness. A works instruction book, serially numbered will also be kept in the ENGINEER'S office and all day to day instructions will be given in that book. The CONTRACTOR'S representative shall report every day to see these instructions and sign them at the bottom in token of his having seen them.

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

#### 2. PRICE & RATES

The rates quoted by the Bidder in the online Price Bid shall be inclusive of cost of all labor, supervision, cost of safety supervisor, shifting, transportation, loading, unloading, equipment, all tools & tackles, safety equipments & PPEs, Royalties, Rents, Excise duty, Sales Tax, Stamp Duties, Central or State Government or Local body or Municipal Taxes or Duties, Turn over Tax, Work Contract Tax, VAT, Octroi duty and / or any other duty / tax (excluding GST), levied by the Central, State Government or other Public bodies etc...and such other costs that are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work. The quoted rates shall be deemed to include for everything mentioned in the specification, all leads & lifts, contractor's overheads & profits for due performance of the work under this contract and such other costs that are not specifically mentioned herein but will be incurred by the contractor for the satisfactory and timely completion of the work. The rates shall also include cost for mobilization / demobilization of manpower, equipments, materials, etc...

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

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

The price/rate quoted by CONTRACTOR shall be considering mobilization of all required manpower, tools & tackles, materials, equipment for timely and satisfactory completion of all scope of work.

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



#### 3. CONTRACT PERIOD

Contract period will two years from the date of commencement (mobilization period will be 7 to 15 days from the date of issue of LoI or Work Order whichever earlier).

#### 4. TERMS OF PAYMENT

#### A. Conditions of Payment:

The contractor shall raise the location wise separate running invoices 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:

- (i) 100% of monthly RA bill along with 100% taxes shall be released against the work executed duly certified by GIPCL. Income Tax (IT) will be deducted at source from monthly RA bills as per the rules in force.
- (ii) Security deposit at 10% of annual contract value shall be submitted as per clause no.: 1 of Section-C.
- (iii) Goods and Service tax (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 GST 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 of its registration certificate is cancelled or discontinued for whatsoever reason.
- (iv) At the time of submission of the first monthly RA Bill, the Contractor shall submit a certificate from Engineer-in-charge regarding availability of tools & tackles, equipments, vehicles etc at site as per list attached in the tender document (i.e. Annexure-E). The Contractor shall also furnish the checklist as per ANNEXURE-A enclosed with the Section-F of tender document along with the RA bill of respective month.
- (v) While making running account payment, following deductions may be done by GIPCL, if applicable:
  - 1. Cost of material issued, if any, by GIPCL and to the extent consumed in the work.
  - 2. Advance on material / work progress advance payments, if any.
  - 3. LD/penalty for delayed delivery, penalty for delayed execution of work, recovery of the charges for the work done by other contractor due to delay or any other reason, if applicable.



- 4. Any other dues recoverable by GIPCL from the contractor under the contract.
- (vi) The contractor along with monthly RA Bill shall submit copy of P.F. Challan, wages register of previous month, attendance sheet of respective month & copy of ECR statement indicating the employee and employer's P.F contribution of previous month with respect of employees employed by him for the contract at GIPCL site.
- (vii) The Contractor shall submit his Final Bill within a period of four months of the expiration or earlier termination of the contract or any extensions that may be granted by GIPCL to the Contractor. GIPCL shall not entertain any bill for any work item after expiration of period of four months.
- (viii) 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.

At the time of submission of Final/Last RA bill, the Contractor shall submit an indemnity bond acknowledging the receipt of all the due amounts and indemnifying GIPCL from and against all claims in that regard

#### **B. Validity and Uniformity of Rates**

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

#### 5. SUBMISSION OF TECHNICAL DOCUMENTS TO THE ENGR-IN-CHARGE

Contractor shall submit following documents to the Engineer-in-charge for verification purpose of the bill:-

(i) Measurement sheet along with joint record of work done in the form of joint inspection report/ check list duly signed by authorized representative of contractor and GIPCL Engineer.

The bill will not be entertained without submission of above documents.

#### 6. SUBMISSION OF STATUTORY COMPLIANCES WITH EACH BILL

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

(i) Copy of statutory compliance like labour license, wages payment register, EC Policy, PF paid Challan with ECR, etc... along wage certificate pertaining to respective bill period.



- (ii) Notarized Indemnity Bond as per Performa, in case of Final bill.
- (iii) No claim No arbitration certificate as per Performa, after releasing final bill payment.

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

#### 7. MEASUREMENT& DAILY REPORTS

- a. The contractor has to complete the preventive maintenance (PM) 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. Contractor must carry out the Preventive maintenance jobs as per the equipment PM check sheet provided by the GIPCL, also after completion of the PM jobs, this duly filled PM check sheet is to be submitted duly signed to Engineer in charge.
- b. The contractor has to submit daily reports showing maintenance work carried out spare parts/ consumables etc. replaced.

#### 7. MOBILIZATION AND EXECUTION

- a) Contractor shall mobilize the resources at site within 7 to 15 Days from the time the intimation given by GIPCL.
- b) Contractor shall provide required separate & independent site supervisors who will be responsible for supervision and execution of job in specified time with respect to quality, specifications, site preparations, safety, co ordination with GIPCL, issue of work permits, joint measurements, etc.. The supervisors shall coordinate with the Engineerin-charge of GIPCL for proper execution of the job.
- c) The resources required for execution of above jobs will vary from time to time, hence contractor shall mobilize the resources accordingly.
- d) Contractor shall provide accommodation for the persons deployed by him for the work at his own cost.

#### 9. QUANTITY OF WORK

The estimated quantities of work required to be carried out by the contractor are as given in the Section-E (Schedule of Quantity) and shall vary according to the exigencies of work at site. However, the rates quoted by Bidder shall remain firm irrespective of any variation in estimated quantities. Contractors shall engage required nos. of labors along with required tools & tackles as per work load and emergency situations throughout the contract period to perform his contractual duties.

In case, contract quantity/amount exhausted before completion of contract period, GIPCL reserve the rights to increase the quantities or contract amount for successful completion of entire contract period. Contractor shall responsible to complete the particular job up to entire satisfaction of Engineer-in-charge.



The item rates remain firm & unchanged 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... for any reason whatsoever. The quantum of work of individual item may be up to any extent depending upon requirement. However, item rate remains unchanged. Under this contract, contractor has to execute all work as per the Plant requirement.

#### 10. GENERAL CONDITIONS OF CONTRACT

General Conditions of Contract (Section-C) and detail specification prepared by the company will be applicable for this contract. The same is enclosed herewith. Bidders are advised to go through the same.

Where any portion of the general conditions of contract is repugnant to or at variance with any provisions of the special conditions 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-E SCHEDULE OF QUANTITIES

**SURAT LIGNITE POWER PLANT - 4X125 MW** 

A1: PRICE SCHEDULE FOR MAIN PLANT ELECTRICAL SLPP-1 PM (PACKAGE-A) (EXCLUDING GST)



Sr. No.	ITEM DESCRIPTION	UOM	QUANTI TY FOR TWO YEAR	UNIT SOR RATE WITHOUT GST IN Rs.	TOTAL SOR PRICE W/O GST FOR TWO YEARS IN Rs.
1	PM OF 6.6KV BFP MOTOR- 2000KW	NOS	18	2165	38970
2	PM OF 6.6KV AIR COMPRESSOR MOTOR- 320 KW	NOS	12	2165	25980
3	PM OF 6.6KV PA FAN MOTOR- 1120 KW	NOS	7	2868	20076
4	PM OF 6.6KV SA FAN MOTOR- 1250KW	NOS	7	2868	20076
5	PM OF 6.6KV ID FAN MOTOR -725KW	NOS	8	2165	17320
6	PM OF 6.6KV FBHE BLOWERS MOTOR-190 KW	NOS	22	2165	47630
7	PM OF 6.6KV SEAL AIR BLOWER MOTOR- 225 KW	NOS	12	2165	25980
8	PM OF 6.6KV COOLING WATER PUMP MOTOR - 560KW	NOS	15	2165	32475
9	PM OF 6.6KV CEP MOTOR -300KW	NOS	12	2165	25980
10	PM OF 6.6KV RWP MOTOR AT BODHAN-275 KW	NOS	1	2165	2165
11	PM OF 6.6KV HT BREAKER AND ITS PANEL	NOS	18	1082	19476
12	PM OF LT BREAKER AND ITS PANEL	NOS	10	722	7220
13	PM OF LT MOTOR & ITS MODULE UP TO 3.0 KW (63 TO 100 FRAME)	NOS	520	713	370760
14	PM OF LT MOTOR & ITS MODULE 3.1 KW TO 3.7 KW (112 FRAME)	NOS	60	713	42780
15	PM OF LT MOTOR & ITS MODULE 3.8 KW TO 9.3 KW (132 FRAME)	NOS	80	713	57040
16	PM OF LT MOTOR & ITS MODULE 9.4 KW TO 15 KW (160 FRAME)	NOS	90	713	64170
17	PM OF LT MOTOR & ITS MODULE 15.1 KW TO 22 KW (180 FRAME)	NOS	28	713	19964
18	PM OF LT MOTOR & ITS MODULE 22.1 KW TO 30 KW (200 FRAME)	NOS	24	713	17112
19	PM OF LT MOTOR & ITS MODULE 30.1 KW TO 45 KW (225 FRAME)	NOS	100	713	71300
20	PM OF LT MOTOR & ITS MODULE 45.1 KW TO 60 KW (250 FRAME)	NOS	35	713	24955
21	PM OF LT MOTOR & ITS MODULE 60.1 KW TO 90 KW (280 FRAME)	NOS	55	854	46970
22	PM OF LT MOTOR & ITS MODULE 90.1 KW TO 200 KW (315 FRAME)	NOS	80	854	68320
23	PM OF DC MOTORS & ITS MODULE UP OT 15KW	NOS	8	854	6832
24	DC MOTORS & ITS MODULE15.1KW TO 37KW	NOS	4	1425	5700
25	PM OF ACTUATOR, ITS MOTOR & MODULE < 1 KW	NOS	20	357	7140
26	PM OF ACTUATOR, ITS MOTOR & MODULE >1 <=5 KW	NOS	10	713	7130



27	PM OF HOIST, ITS MOTOR, THRUSTER BREAK COIL & CONTROL PANEL - UP TO 10 TON	NOS	50	2165	108250
28	PM OF TG 175/30 TONS EOT CRANE, ITS MOTORS, THRUSTER BREAK COIL & CONTROL PANEL EOT CRANE	NOS	2	4294	8588
29	PM OF TG 40/10 TONS EOT CRANE ITS MOTOR, THRUSTER BREAK COIL & CONTROL PANEL EOT CRANE	NOS	2	4294	8588
30	PM OF CWPH 20/10 TONS EOT CRANE ALONG WITH ITS MOTOR, THRUSTER BREAK COIL & CONTROL PANEL EOT CRANE.	NOS	2	3590	7180
31	PM OF WORKSHOP & WARE HOUSE10 TONS EOT CRANE ALONG WITH ITS MOTOR, THRUSTER BREAK COIL & CONTROL PANEL EOT CRANE.	NOS	4	2165	8660
32	PM OF 6.6 KV UNIT BOARD SWGR BUS-A (U1A, U2A) 19 VERTICALS	NOS	4	13567	54268
33	PM OF 6.6 KV UNIT SWGR BUS-B (U1B, U2B) 19 VERTICALS	NOS	4	13567	54268
34	PM OF 6.6 KV STATION BOARD SWGR. (C1,C2) 18 VERTICALS	NOS	4	12863	51452
35	PM OF 6.6 KV COLONY BOARD SWGR. (S/S1 & 2) 4 VERTICALS	NOS	4	3590	14360
36	PM OF 6.6 KV SWGR. AT BODHAN 7 VERTICALS	NOS	1	5016	5016
37	PM OF 11 KV SWITCHGEAR 4 VERT AT BODHAN P/H	NOS	1	3590	3590
38	PM OF 11KV DOUBLE POLE STRUCTURE AT BODHAN P/H	NOS	1	2887	2887
39	PM OF 415V AC MCC BUS- A -7 VERT. DOUBLE FRONT WITH LT BREAKER	NOS	2	5016	10032
40	PM OF 415V AC MCC BUS- B - 4 VERT. DOUBLE FRONT	NOS	2	3590	7180
41	CLARIFIED SWITCHGEAR BUS- A - 10 VERT. DOUBLE FRONT	NOS	3	7181	21543
42	PM OF 415V CLARIFIED SWITCHGEAR BUS- B - 9 VERT. DOUBLE FRONT	NOS	3	7181	21543
43	PM OF 415V DM PLANT SWITCHGEAR BUS- A - 5 VERT. DOUBLE FRONT	NOS	2	3590	7180
44	PM OF 415V DM PLANT SWITCHGEAR BUS- B - 5 VERT. DOUBLE FRONT	NOS	2	3590	7180
45	PM OF 415V FOPH SWITCHGEAR BUS- A -6 VERT. DOUBLE FRONT	NOS	2	3590	7180
46	PM OF 415V FOPH SWITCHGEAR BUS- B -7 VERT. DOUBLE FRONT	NOS	2	4313	8626
47	PM OF 415V RAW WATER SWITCHGEAR BUS- A -6 VERT. DOUBLE FRONT	NOS	3	4313	12939
48	PM OF 415V RAW WATER SWITCHGEAR BUS- B -5 VERT. DOUBLE FRONT	NOS	3	3590	10770



49	PM OF 415V SB MCC BUS-A -5 VERT DOUBLE FRONT	NOS	4	3590	14360
50	PM OF 415V SB MCC BUS-B -4 VERT. DOUBLE FRONT	NOS	4	3590	14360
51	PM OF 415V WORKSHOP BUS-A 4 VERT. DOUBLE FRONT	NOS	2	2887	5774
52	PM OF 415V WORKSHOP BUS-B -2 VERT. DOUBLE FRONT	NOS	2	2165	4330
53	PM OF 415V SSS BUS- A -10 VERT. DOUBLE FRONT	NOS	2	7181	14362
54	PM OF 415V SSS BUS- B -9 VERT. DOUBLE FRONT	NOS	2	6459	12918
55	PM OF 415V UNIT SERVICE SWITCH GEAR BUS-A -16 VERT. DOUBLE FRONT	NOS	4	11438	45752
56	PM OF 415V UNIT SERVICE SWITCH GEAR BUS-B -16 VERT. DOUBLE FRONT	NOS	4	11438	45752
57	PM OF 415V DG BUS-A 6 VERT. DOUBLE FRONT	NOS	2	3590	7180
58	PM OF 415V DG BUS-B 3 VERT. DOUBLE FRONT	NOS	2	2887	5774
59	PM OF 415V CWPH SWITCHGEAR BUS-A 7 VERT. DOUBLE FRONT	NOS	2	5016	10032
60	PM OF 415V CWPH SWITCHGEAR BUS-B 7 VERT. DOUBLE FRONT	NOS	2	5016	10032
61	PM OF 415V CWPH SWITCHGEAR BUS-C 6 VERT. DOUBLE FRONT	NOS	2	4294	8588
62	PM OF 415V NE SWITCHTGEAR 11 VERT. DOUBLE FRONT	NOS	4	7885	31540
63	PM OF 415V TVDC BUS-A 10 VERT. DOUBLE FRONT	NOS	4	7181	28724
64	PM OF 415V TVDC BUS-B 6 VERT. DOUBLE FRONT	NOS	4	4294	17176
65	PM OF 415V BVDC BUS-A 5 VERT. DOUBLE FRONT	NOS	4	3590	14360
66	PM OF 415V BVDC BUS-B 5 VERT. DOUBLE FRONT	NOS	4	3590	14360
67	PM OF 415V ESP SWGRA 7 VERT. DOUBLE FRONT	NOS	6	5034	30204
68	PM OF 415V ESP SWGRB 6 VERT. DOUBLE FRONT	NOS	6	4294	25764
69	PM OF 415V 415 UPS ACDB 7 VERT. DOUBLE FRONT	NOS	4	3590	14360
70	PM OF 415V PM OF 415V SWITCHYARD ACDB 5 VERT. DOUBLE FRONT	NOS	2	3590	7180
71	PM OF 415V LT SWGR. AT BODHAN	NOS	2	2148	4296
72	PM OF 220V UNIT DCDB BUS-A 4 VERT. DOUBLE FRONT	NOS	4	2851	11404
73	PM OF 220V UNIT DCDB BUS-B 3 VERT. DOUBLE FRONT	NOS	4	2148	8592
74	PM OF 24V UNIT DCDB 7 VERT. DOUBLE FRONT	NOS	4	5016	20064



75	PM OF 220V SWITCHYARD DCDB 4 VERT. DOUBLE FRONT	NOS	2	2851	5702
76	PM OF 220V STATION DCDB BUS-A 3 VERT. DOUBLE FRONT	NOS	2	2148	4296
77	PM OF 220V STATION DCDB BUS-B 2 VERT. DOUBLE FRONT	NOS	2	2129	4258
78	PM OF150MVA, 230 KV/10.5 KV OIL FILLED GENERATOR TRANSFORMER ALONGWITH COOLER BANK & PANEL	NOS	4	6459	25836
79	PM OF 25MVA, 230 KV/6.6 KV OIL FILLED STATION TRANSFORMER ALONGWITH NGR /NGT & PANELS	NOS	4	4294	17176
80	PM OF 18MVA, 10.5 KV/6.9KV OIL FILLED UNIT AUX. TRANSFORMER ALONGWITH NGR /NGT & PANELS	NOS	4	3590	14360
81	PM OF LT OIL FILLED TRANSFORMERS OF 1250 KVA AND ABOVE UPTO 2 MVA (6.6 KV/0.433KV) ALONGWITH NGR /NGT, & PANELS	NOS	48	2165	103920
82	PM OF LT OIL FILLED TRANSFORMERS OF 500 KVA (6.6 KV/0.433KV) ALONGWITH NGR /NGT & PANELS	NOS	12	2165	25980
83	PM OF OIL FILLED TRANSFORMERS OF1000 KVA (11.5 KV/7KV) ALONGWITH NGR /NGT, & PANELS AT BODHAN P/H	NOS	2	2165	4330
84	PM OF ESP FIELD TRANSFORMER (RATING- 96.922 KVA, AC I/P VOLT-360V, O/P-49450V) ALONG WITH FIELD CONTROL PANEL	NOS	96	2165	207840
85	PM OF TRANSFORMER 415V BUSDUCT AND SWITCHGEAR TIE BUSDUCT	NOS	16	2165	34640
86	PM OF 6.6KV C1-U1A AND C2-U2B BUS DUCT	NOS	4	1425	5700
87	PM OF 220KV LINE BAY EQUIPEMENTS INCLUDING CT, PT, ISOLATOR BREAKER, COMPRESSOR AND ITS MOTOR	NOS	12	3590	43080
88	PM OF 220KV TRANSFORMER BAY EQUIPEMENTS INCLUDING CT, PT, ISOLATOR, BREAKER, COMPRESSOR AND ITS MOTOR	NOS	12	3590	43080
89	PM OF 220KV BUS COUPLER BAY EQUIPEMENTS INCLUDING CT, PT, ISOLATOR, BREAKER, COMPRESSOR AND ITS MOTOR	NOS	2	3590	7180
90	PM OF BREAKER COMPRESSOR AND ITS MOTOR	NOS	24	713	17112
91	EARTH PIT PM, EARTH RESISTANCE MEASUREMENT AND WATERING IN EARTH PIT	NOS	100	357	35700
92	PM OF GENERATOR, EXCITER & DIODE WHEEL	NOS	4	4294	17176
93	PM OF GENERATOR ISOLATED PHASE BUS DUCT INCLUDING SPVT CUBICLE-SURGE CAPACITOR/NGT/NGR	NOS	4	5016	20064
94	PM OF AVR	NOS	4	1425	5700



95	PM OF DG SET ALTERNATOR, NGR & ITS STARTER MOTOR	NOS	4	1425	5700
96	PM OF ESP FIELD CONTROL PANEL ALONG WITH FIELD TRANSFORMER TERMINAL BOX AND SUPPLY MODULE (WHEVER REQUIRD WITHOUT ESPTRANSFORMER)	NOS	20	1425	28500
97	PM OF AHU CONTROL PANEL & ITS SUPPLY MODULE	NOS	14	713	9982
98	PM OF ATOMIZING AIR HEATER PANEL/ LIGNITE ALF PANEL AT 3.2 METER & ITS MODULE	NOS	6	713	4278
99	PM OF HTP (HEAT TRACING PANEL) PANEL & ITS SUPPLY MODULE AT FOPH AND 3.2 METER	NOS	8	713	5704
100	PM OF HFO HEATER PANEL & ITS SUPPLY MODULE	NOS	2	713	1426
101	PM OF LDP & ITS SUPPLY MODULE AT FOPH AND DM PLANT	NOS	6	713	4278
102	PM OF OIL CENTRIFUGE PANEL & ITS SUPPLY MODULE	NOS	4	357	1428
103	PM OF TUBE CLEANING SYSTEM PANEL(OLTC) & ITS SUPPLY MODULE	NOS	4	357	1428
104	PM OF WARE HOUSE ACDB & ITS SUPPLY MODULE	NOS	2	1425	2850
105	PM OF 110V ACDB & ITS SUPPLY MODULE	NOS	4	713	2852
106	PM OF 230V ACDB & ITS SUPPLY MODULE	NOS	4	713	2852
107	PM OF 220V DCDB (DC EOP/JOP) & ITS SUPPLY MODULE	NOS	4	713	2852
108	PM OF 220V DCDB (HYDB) & ITS SUPPLY MODULE	NOS	4	713	2852
109	PM OF AUX. CONTROL PANEL FOR ESP & ITS SUPPLY MODULE	NOS	6	3590	21540
110	PM OF VOLTAS ACDB & ITS SUPPLY MODULE FOR UPS	NOS	4	713	2852
111	PM OF DG AMF PANEL & FIRE DIESEL ENGINE CONTROL PANEL	NOS	6	713	4278
112	PM OF DC EOP PANEL	NOS	4	713	2852
113	PM OF DC JOP PANEL	NOS	4	713	2852
114	PM OF 415V UPS BATTERY SET (196 CELLS, 2.2V, 1395AH)	NOS	32	4294	137408
115	PM OF 220V UNIT/STATION BATTERY SET (107 CELLS, 2.2V,1180AH)	NOS	42	2868	120456
116	PM OF 24V BATTERY SET (13 CELLS/SET, 2.2V,1715AH)	NOS	56	1425	79800
117	PM OF 110V UPS BATTERY SET (192 CELLS/SET, 2.2V,250AH)	NOS	56	2851	159656
118	PM OF 220V (110 CELLS, 2.2V,300AH) SWITCHYARD BATTERY SET	NOS	16	2165	34640
119	PM OF 52V (26 CELLS, 2.2V,350AH) PLCC BATTERY SET	NOS	12	1425	17100
120	PM OF DG & EBFP BATTERY SET (8 CELL OF 12V EACH PER DG)	NOS	96	713	68448



121	PM OF HYDRANT PUMP DIESEL ENGINE BATTERY SET (4 CELL OF 12V)	NOS	24	713	17112
122	PM OF 110V, 200AH BATTERY SET AT BODHAN	NOS	1	1425	1425
123	PM OF 110V FLOAT & BOOOST CHARGER AT BODHAN	NOS	1	713	713
124	PM OF FLOAT & BOOST CHARGER FOR 220V BATTERY ALONG WITH SUPPLY MODULE	NOS	12	1425	17100
125	PM OF SWITCHYARD PLCC CHARGER FOR 48V BATTERY ALONG WITH SUPPLY MODULE	NOS	2	713	1426
126	PM OF FLOAT & BOOST CHARGER FOR 24V BATTERY ALONG WITH SUPPLY MODULE	NOS	8	1425	11400
127	PM OF 415V UPS PANELS 3X200A THREE CUBICLE PER UPS	NOS	4	2868	11472
128	CLEANING OF LIFT CAR OF BOILER -1, 2 & SERVICE BUILDING LIFT (1 JOB CONSIDERED FOR ALL 3 LIFT)	NOS	50	176	8800
129	CHECKING OF EXHAUST FANS AT TG FLOOR, CHARGER ROOMS, BATTERY ROOMS, MCC ROOMS, BLOWER ROOMS (1 JOB CONSIDERED FOR ALL ABOVE FANS)	NOS	50	176	8800
131	POLYTHENE SHEET COVERNG OF ALL ELECTRICAL EQUIPMENT/ SEALING OF FOPH HEATER/ROOF EXHAUST FAN PER KG BASIS	KGS	600	176	105600
132	ONLY EXTERNAL CLEANING 150MVA, 220KV/10.5KV GENERATOR TRANSFORMER	NOS	2	2868	5736
133	ONLY EXTERNAL CLEANING 25MVA, 220KV/6.6KV STATION TRANSFORMER	NOS	2	2165	4330
134	ONLY EXTERNAL CLEANING 18MVA, 10.5KV/6.6KV UNIT AUX. TRANSFORMER	NOS	2	2165	4330
135	ONLY EXTERNAL CLEANING 2MVA 6.6KV/415V TRANSFORMER	NOS	2	713	1426
136	ONLY CLEANING BY BLOWER FOR FLOAT & BOOST CHARGERS	NOS	56	357	19992
137	ASSISTANCE DURING BATTERY CAPACITY TEST FOR REMOVAL OF BATTERY LINK, CLEANING, FIXING, TOPPTING UP, VENT PLUG, INSULATOR CLEANING/REPLACEMENT FOR 24V BATTERY SET	NOS	8	1425	11400
138	ASSISTANCE DURING BATTERY CAPACITY TEST FOR REMOVAL OF BATTERY LINK, CLEANING, FIXING, TOPPTING UP, VENT PLUG, INSULATOR CLEANING/REPLACEMENT FOR 110V UPS BATTERY SET	NOS	8	2832	22656
139	ASSISTANCE DURING BATTERY CAPACITY TEST FOR REMOVAL OF BATTERY LINK, CLEANING, FIXING, TOPPTING UP, VENT PLUG, INSULATOR CLEANING/REPLACEMENT FOR 415V UPS BATTERY SET	NOS	4	4294	17176



140	ASSISTANCE DURING BATTERY CAPACITY TEST FOR REMOVAL OF BATTERY LINK, CLEANING, FIXING, TOPPTING UP, VENT PLUG, INSULATOR CLEANING/REPLACEMENT FOR 220V BATTERY SET	NOS	6	2129	12774
141	ASSISTANCE DURING BATTERY CAPACITY TEST FOR REMOVAL OF BATTERY LINK, CLEANING, FIXING, TOPPTING UP, VENT PLUG, INSULATOR CLEANING/REPLACEMENT FOR 52V PLCC BATTERY SET	NOS	2	1425	2850
142	ASSISTANCE DURING BATTERY CAPACITY TEST FOR REMOVAL OF BATTERY LINK, CLEANING, FIXING, TOPPTING UP, VENT PLUG, INSULATOR CLEANING/REPLACEMENT FOR 110V BATTERY SET AT BODHAN	NOS	1	1425	1425
143	ASSISTING IN RELAY TESTING & PROTECTION SCHEME CHECKING FOR 220KV LINE FEEDER & B/C FEEDER	NOS	8	1425	11400
144	ASSISTING IN RELAY TESTING & PROTECTION SCHEME CHECKING FOR STATION TRANSFORMER FEEDER	NOS	4	1425	5700
145	ASSISTING IN RELAY TESTING & PROTECTION SCHEME CHECKING FOR GENERATOR RELAY PANEL	NOS	4	2851	11404
146	ASSISTING IN RELAY TESTING & PROTECTION SCHEME CHECKING FOR INCOMER 1 & 2, B/C FEEDERS OF 415V LT SWITCHGEARS	NOS	10	1425	14250
147	ASSISTING IN RELAY TESTING & PROTECTION SCHEME CHECKING FOR 11/6.6 KV SWGR AT BODHAN	NOS	1	1425	1425
148	ASSISTING IN SERVICING/DEFECT WORK WITH SERVICE ENGINEER i.e. UPS/ CHARGER/ ACTUATOR/LA CURRENT ANALAYSE/ THERMOGRAPHY/ BATTERY OH OR/OTHER MISC WORK (ONE TECHNICIAN/DAY)	NOS	60	731	43860
149	ASSISTING IN SERVICING/DEFECT WORK WITH SERVICE ENGINEER i.e. UPS/ CHARGER/ACTUATOR/LA CURRENT ANALAYSE/THERMOGRAPHY/ BATTERY OH/ OTHER MISC WORK (ONE HELPER/DAY)	NOS	80	713	57040
150	ASSISTING IN RELAY TESTING & PROTECTION SCHEME CHECKING FOR 6.6KV TRANSFORMER FEEDERS	NOS	20	713	14260
151	ASSISTING IN RELAY TESTING & PROTECTION SCHEME CHECKING FOR 6.6KV SWGR. I/C & TIE FEEDERS	NOS	10	713	7130
152	ASSISTING IN RELAY TESTING & PROTECTION SCHEME CHECKING FOR HT/LT MOTOR FEEDER	NOS	20	713	14260
153	ASSISTING IN TAN DELTA & CAPACITANCE, PI MEASUREMENT BY REMOVING & RE-FIXING THE REQUIRED CONNECTIONS /JUMPER,	NOS	4	2148	8592



	CLEANING BUSHINGS, ETC FOR 125MW, 10.5KV GENERATOR				
154	ASSISTING IN TAN DELTA & CAPACITANCE, PI MEASUREMENT BY REMOVING & RE-FIXING THE REQUIRED CONNECTIONS /JUMPER, CLEANING BUSHINGS, ETC FOR 150MVA, 220KV/10.5KV GENERATOR TRANSFORMER	NOS	4	2851	11404
155	ASSISTING IN TAN DELTA & CAPACITANCE, PI MEASUREMENT BY REMOVING & RE-FIXING THE REQUIRED CONNECTIONS /JUMPER, CLEANING BUSHINGS, ETC FOR 25MVA, 220KV/6.6KV STATION TRANSFORMER	NOS	4	2129	8516
156	ASSISTING IN TAN DELTA & CAPACITANCE, PI MEASUREMENT BY REMOVING & RE-FIXING THE REQUIRED CONNECTIONS /JUMPER, CLEANING BUSHINGS, ETC FOR 18MVA, 10.5KV/6.6KV UNIT AUX. TRANSFORMER	NOS	4	2129	8516
157	ASSISTING IN TAN DELTA & CAPACITANCE, PI MEASUREMENT BY REMOVING & RE-FIXING THE REQUIRED CONNECTIONS /JUMPER, CLEANING BUSHINGS, ETC FOR 220KV CT / EMVT	NOS	12	713	8556
158	GREASING WORK IN ALL HT MOTORS OF SLPP-1	NOS	6	5700	34200
159	GREASING WORK IN ALL LT MOTORS OF SLPP-1 (WHEREVER GREASING PROVISION IS THEIR)	NOS	6	5700	34200
160	ONLY AIR PATH CLEANING AFTER REMOVING THE FAN COVER IN HT MOTORS (OTHER THAN PM)	NOS	12	1425	17100
161	UP TO 1.2 KW MOTOR BEARING REPLACEMENT INCLUDING CABLE REMOVAL & RE-CONNECTION, CLEANING SHIFTING ETC	NOS	40	713	28520
162	LIFT OPERATION WORK DURING AOH/COH IN SHIFT	PER SHIF T	75	550	41250
A1	A1 TOTAL SOR VALUE FOR MAIN PLANT SLP1 PM FOR TWO Y				4003559
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#### A2: PRICE SCHEDULE FOR MAIN PLANT ELECTRICAL SLPP-2 PM (PACKAGE-A) (EXCLUDING GST) TOTAL **UNIT** SOR QUANTI SOR **PRICE** TY FOR Sr. RATE ITEM DESCRIPTION **UOM** W/O GST **WITHOUT TWO** No. **FOR TWO GST IN** YEAR YEARS IN Rs. Rs. 1 PM OF 6.6KV BFP MOTOR- 4000 KW NOS 12 2165 25980 PM OF 6.6KV AIR COMPRESSOR MOTOR- 400 2 NOS 9 2165 19485 KW 3 PM OF 6.6KV PA FAN MOTOR- 1150 KW NOS 8 2868 22944 PM OF 6.6KV SA FAN MOTOR- 975 KW NOS 4 8 2868 22944 5 PM OF LT 415V ID FAN MOTOR -850 KW NOS 8 2165 17320 PM OF 6.6KV FBHE BLOWERS MOTOR-200 KW NOS 6 24 2165 51960 PM OF 6.6KV SEAL AIR BLOWER MOTOR- 180 7 NOS 12 2165 25980 KW PM OF 6.6KV ASH COOLER BLOWER MOTOR-8 NOS 12 2165 25980 180 KW PM OF 6.6KV COOLING WATER PUMP MOTOR -NOS 9 9 2165 19485 1900 KW 10 PM OF 6.6KV CEP MOTOR -300KW NOS 12 2165 25980 PM OF 6.6KV RIVER WATER PUMP MOTOR AT NOS 11 12 2165 25980 PATNA-360 KW 12 PM OF 6.6KV HT BREAKER AND ITS PANEL NOS 10 1082 10820 PM OF LT BREAKER AND ITS PANEL NOS 24 13 713 17112 PM OF LT MOTOR & ITS MODULE UP TO 3.0 KW NOS 14 600 713 427800 (63 TO 100 FRAME) PM OF LT MOTOR & ITS MODULE 3.1 KW TO 3.7 15 NOS 50 713 35650 KW (112 FRAME) PM OF LT MOTOR & ITS MODULE 3.8 KW TO 9.3 16 NOS 120 713 85560 KW (132 FRAME) PM OF LT MOTOR & ITS MODULE 9.4 KW TO 15 NOS 17 53 713 37789 KW (160 FRAME) PM OF LT MOTOR & ITS MODULE 15.1 KW TO 22 NOS 43 18 713 30659 KW (180 FRAME) PM OF LT MOTOR & ITS MODULE 22.1 KW TO 30 19 NOS 32 713 22816 KW (200 FRAME) PM OF LT MOTOR & ITS MODULE 30.1 KW TO 45 20 NOS 28 713 19964 KW (225 FRAME) PM OF LT MOTOR & ITS MODULE 45.1 KW TO 60 NOS 21 58 713 41354 KW (250 FRAME) PM OF LT MOTOR & ITS MODULE 60.1 KW TO 90 NOS

22

KW (280 FRAME)

73444

854

86



23	PM OF LT MOTOR & ITS MODULE 90.1 KW TO 200 KW (315 FRAME)	NOS	68	854	58072
24	PM OF DC MOTORS UP OT 15 KW	NOS	8	854	6832
25	DC MOTORS 5.1 KW TO 37KW	NOS	4	1425	5700
26	PM OF ACTUATOR, ITS MOTOR & SUPPLY MODULE < 1 KW	NOS	10	357	3570
27	PM OF ACTUATOR, ITS MOTOR & MODULE >1 <=5 KW	NOS	4	713	2852
28	PM OF ACTUATOR, ITS MOTOR & SUPPLY MODULE > 5 KW	NOS	4	713	2852
29	PM OF HOIST ALONG WITH ITS MOTOR, THRUSTER BREAK COIL & CONTROL PANEL - UP TO 10 TON	NOS	40	2165	86600
30	PM OF CWPH 30 TONS DOUBLE GIRDER EOT CRANE, ITS MOTOR, THRUSTER BREAK COIL & CONTROL PANEL	NOS	2	2868	5736
31	PM 7.5 /5 TONS SINGLE GIRDER UNDER SLUNG CRANE ALONG WITH ITS MOTOR, THRUSTER BREAK COIL & CONTROL PANEL. (DG, AIR COMPRESSOR, CLARIFY WATER ROOM)	NOS	6	2165	12990
32	PM OF CWPH 10 TONS SEMI-GANTRY EOT CRANE ALONG WITH ITS MOTOR, THRUSTER BREAK COIL & CONTROL PANEL	NOS	2	2868	5736
33	PM OF AIR WASHER ROOM ELECTRIC HOIST 5 T ALONG WITH ITS MOTOR, THRUSTER BREAK COIL AND CONTROL PANEL	NOS	2	2165	4330
34	PM OF AC PLANT ROOM ELECTRIC HOIST 3 T ALONG WITH ITS MOTOR, THRUSTER BREAK COIL AND CONTROL PANEL	NOS	2	2165	4330
35	PM OF 6.6 KV UNIT BOARD SWGR BUS-A (3CA, 4CA) 19 VERTICALS	NOS	4	13567	54268
36	PM OF 6.6 KV UNIT SWGR BUS-B (3CB, 4CB) 19 VERTICALS	NOS	4	13567	54268
37	PM OF 6.6 KV STATION BOARD SWGR. (0CA, 0CB) 12 VERTICALS	NOS	4	8587	34348
38	PM OF 6.6 KV SWGR. AT PATNA 9 VERTICALS	NOS	2	5719	11438
39	PM OF 11 KV SWITCHGEAR 4 VERT AT PATNA P/H	NOS	2	2868	5736
40	PM OF 11KV DOUBLE POLE STRUCTURE AT PATAN P/H	NOS	2	2165	4330
41	CLARIFIED SWITCHGEAR BUS- A - 10 VERT. DOUBLE FRONT, ODB SWITCHGEAR	NOS	3	7163	21489
42	PM OF 415V CLARIFIED SWITCHGEAR BUS- B - 10 VERT. DOUBLE FRONT, ODB SWITCHGEAR	NOS	3	7163	21489
43	PM OF 415V DM PLANT SWITCHGEAR BUS- A -5 VERT. DOUBLE FRONT, OSC SWITCHGEAR	NOS	2	3590	7180
44	PM OF 415V DM PLANT SWITCHGEAR BUS- B -5 VERT. DOUBLE FRONT, OSC SWITCHGEAR	NOS	2	3590	7180
45	PM OF 415V SB MCC BUS-A -4 VERT DOUBLE FRONT	NOS	4	2868	11472



46	PM OF 415V SB MCC BUS-B -4 VERT. DOUBLE FRONT	NOS	4	2868	11472
47	PM OF 415V SSS BUS- A -8 VERT. DOUBLE FRONT, ODA SWGR	NOS	2	5738	11476
48	PM OF 415V SSS BUS- B -9 VERT. DOUBLE FRONT, ODA SWGR	NOS	2	6459	12918
49	PM OF 415V AC & V BUS-A 6 VERT. DOUBL FRONT, OTA SWGR	NOS	2	4294	8588
50	PM OF 415V AC & V BUS-B 7 VERT. DOUBL FRONT, OTA SWGR	NOS	2	4294	8588
51	PM OF 415V UNIT SERVICE SWITCH GEAR BUS- A -14 VERT. DOUBLE FRONT, 3DA/4DA SWITCHGEAR	NOS	4	10013	40052
52	PM OF 415V UNIT SERVICE SWITCH GEAR BUS- B -14 VERT. DOUBLE FRONT, , 3DA/4DA SWITCHGEAR	NOS	4	10013	40052
53	PM OF 415V DG BUS-A 4 VERT. DOUBLE FRONT, 0DG SWGR	NOS	2	2868	5736
54	PM OF 415V DG BUS-B 5 VERT. DOUBLE FRONT, 0DG SWGR	NOS	2	3590	7180
55	PM OF 415V DG SET NO. 3 AUX. PANEL	NOS	2	4294	8588
56	PM OF 415V DG SET NO. 4 AUX. PANEL	NOS	2	4294	8588
57	PM OF 415V CWPH SWITCHGEAR BUS-A 7 VERT. DOUBLE FRONT, 3DC SWITCHGEAR	NOS	2	5016	10032
58	PM OF 415V CWPH SWITCHGEAR BUS-B 8 VERT. DOUBLE FRONT, 3DC SWITCHGEAR	NOS	2	5016	10032
59	PM OF 415V CWPH SWITCHGEAR BUS-C 8 VERT. DOUBLE FRONT, , 3DC SWITCHGEAR	NOS	2	5016	10032
60	PM OF 415V NE SWITCHTGEAR 13 VERT. DOUBLE FRONT, 3DG / 4DG SWITCHGEAR	NOS	4	7867	31468
61	PM OF 415V TVDC BUS-A 9 VERT. DOUBLE FRONT, 3KB/4KB SWITCHGEAR	NOS	4	6459	25836
62	PM OF 415V TVDC BUS-B 11 VERT. DOUBLE FRONT, 3KB/4KB SWITCHGEAR	NOS	4	5700	22800
63	PM OF 415V MISC. BUS-A 5 VERT. DOUBLE FRONT, 3QA/4QA SWITCHGEAR	NOS	4	3590	14360
64	PM OF 415V MISC. BUS-B 5 VERT. DOUBLE FRONT, 3QA/4QA SWITCHGEAR	NOS	4	3590	14360
65	PM OF 415V BVDC BUS-A 5 VERT. DOUBLE FRONT, 3HB/4HB SWITCHGEAR	NOS	4	3590	14360
66	PM OF 415V BVDC BUS-B 6 VERT. DOUBLE FRONT, 3HB/4HB SWITCHGEAR	NOS	4	3590	14360
67	PM OF 415V ESP SWGRA 4 VERT. DOUBLE FRONT	NOS	6	3572	21432
68	PM OF 415V ESP SWGRB 5 VERT. DOUBLE FRONT	NOS	6	3572	21432
69	PM OF 415V ESP AC & V SWGRA 3 VERT. DOUBLE FRONT, OTB SWGR	NOS	6	2165	12990



70	PM OF 415V ESP AC & V SWGRB 3 VERT. DOUBLE FRONT, OTB SWGR	NOS	6	2165	12990
71	PM OF 415V 415 UPS ACDB (BUS A/ BUS-B) 10 VERT. DOUBLE FRONT, 3DD / 4DD BOARD	NOS	8	7000	56000
72	PM OF 415V LT SWGR. AT PATNA	NOS	2	2165	4330
73	PM OF 220V UNIT DCDB BUS-A 3 VERT. DOUBLE FRONT, 3FA / 4FA BOARD	NOS	4	2129	8516
74	PM OF 220V UNIT DCDB BUS-B 2 VERT. DOUBLE FRONT, 3FA / 4FA BOARD	NOS	4	2129	8516
75	PM OF 220V STATION DCDB BUS-A 2 VERT. DOUBLE FRONT, 0FA BOARD	NOS	2	2129	4258
76	PM OF 220V STATION DCDB BUS-B 3 VERT. DOUBLE FRONT, 0FA BOARD	NOS	2	2129	4258
77	PM OF 150MVA, 230 KV/10.5 KV OIL FILLED GENERATOR TRANSFORMER ALONGWITH CONTROL PANELS	NOS	4	5016	20064
78	PM OF 45MVA, 10.5 KV/6.9KV OIL FILLED UNIT AUX. TRANSFORMER ALONGWITH NGR, HT BREAKERS & PANELS	NOS	4	3590	14360
79	PM OF LT OIL FILLED TRANSFORMERS OF 1250 KVA AND ABOVE UPTO 2.1 MVA (6.6 KV/0.433KV OR 0.725KV) ALONGWITH NGR /NGT, HT BREAKERS & PANELS	NOS	52	2165	112580
80	PM OF LT OIL FILLED TRANSFORMERS OF 1600 KVA (6.6 KV/0.433KV) ALONGWITH NGR, HT/LT BREAKERS & PANELS FOR PATNA PUMP HOUSE	NOS	8	2165	17320
81	PM OF LT OIL FILLED TRANSFORMERS OF 500 KVA (6.6 KV/0.415KV) ALONGWITH NGR, HT/LT BREAKERS & PANELS	NOS	4	2165	8660
82	PM OF ESP FIELD TRANSFORMER (96.922 KVA, I/P V-360V) ALONG WITH FIELD CONTROL PANEL	NOS	96	2165	207840
83	PM OF 6.6KV 3CA-0CA & 4CB-0CB BUS DUCT	NOS	4	1425	5700
84	PM OF 220KV LINE BAY EQUIPEMENTS INCL. CT, PT, ISOLATOR, EHT BREAKER ETC	NOS	9	3590	32310
85	PM OF 220KV TRANSFORMER BAY EQUIPEMENTS INCL CT, PT, ISOLATOR, BREAKER, COMPRESSOR & ITS MOTOR	NOS	6	3590	21540
86	PM OF 220KV BUS COUPLER BAY EQUIPEMENTS INCL CT, PT, ISOLATOR, BREAKER, COMPRESSOR & ITS MOTOR	NOS	2	3590	7180
87	EARTH PIT PM, EARTH RESISTANCE MEASUREMENT & WATERING IN EARTH PIT	NOS	100	357	35700
88	PM OF GENERATOR, EXCITER & DIODE WHEEL	NOS	4	4294	17176
89	PM OF GENERATOR ISOLATED PHASE BUS DUCT INCLUDING SPVT CUBICLE-SURGE CAPACITOR/NGT/NGR	NOS	4	5016	20064
90	PM OF UAT SEGRTD PHASE BUS DUCT FROM LV1 TO HT SWGR	NOS	4	3553	14212



91	PM OF UAT SEGRTD PHASE BUS DUCT FROM LV2 TO HT SWGR	NOS	4	3553	14212
92	PM OF DIGITAL AVR	NOS	4	1425	5700
93	PM OF DG SET ALTERNATOR, NGR & ITS MOTOR	NOS	4	1425	5700
94	PM OF ESP FIELD CONTROL PANEL ALONGWITH FIELD TRANSFORMER TERMINAL BOX AND SUPPLY MODULE (WHEVER REQUIRD WITHOUT ESPTRANSFORMER)	NOS	20	1425	28500
95	PM OF AHU CONTROL PANEL & ITS SUPPLY MODULE	NOS	14	357	4998
96	PM OF HTP (HEAT TRACING PANEL) PANEL & ITS SUPPLY MODULE AT FOPH AND BOILER 6.5 METER AREA	NOS	8	1425	11400
97	PM OF OIL CENTRIFUGE PNL & ITS MODULE	NOS	4	713	2852
98	PM OF TUBE CLEANING SYSTEM PANEL(OLTC) & ITS MODULE	NOS	4	713	2852
99	PM OF AUX. CONTROL PANEL FOR ESP & ITS SUPPLY MODULE	NOS	4	2851	11404
100	PM OF DG AMF PANEL & FIRE DIESEL ENGINE CONTROL PANEL & MAIN & STANDBAY CHARGER	NOS	6	2851	17106
101	PM OF DG MAIN / STANDBY BATTERY CHARGER SET	NOS	8	713	5704
102	PM OF DC EOP STARTER PANEL	NOS	4	713	2852
103	PM OF DC JOP STARTER PANEL	NOS	4	713	2852
104	PM OF 415V UPS BATTERY SET (204 CELLS, 2.2V, 1715AH)	NOS	24	4294	103056
105	PM OF 220V UNIT/STATION BATTERY SET (108 CELLS, 2.2V, 1285AH)	NOS	36	2868	103248
106	PM OF 110V UPS BATTERY SET (170 CELLS, 2.2V, 645AH)	NOS	48	3590	172320
107	PM OF DG CONTROL BATTERY SET (24V TWO SET, 180AH)	NOS	72	500	36000
108	PM OF DG CRANKING BATTERY SET (24V TWO SET, 360AH)	NOS	72	500	36000
109	PM OF EBFP BATTERY SET (24V TWO SET, 180AH)	NOS	48	713	34224
110	PM OF HYDRANT PUMP DIESEL ENGINE BATTERY SET (4 CELL OF 12V)	NOS	22	713	15686
111	PM OF 110V, 165 AH VRLA BATTERY SET AT PATNA	NOS	6	1425	8550
112	PM OF 110V FLOAT & BOOOST CHARGER AT PATNA	NOS	2	713	1426
113	PM OF APFC PANEL AT PATNA	NOS	2	713	1426
114	PM OF HT CAPACITOR PANEL (04 NOS.)	NOS	2	1425	2850
115	PM OF FCMA SOFT STARTER PANEL (04 NOS.)	NOS	2	2165	4330
116	PM OF FLOAT & BOOST CHARGER FOR 220V BATTERY ALONG WITH SUPPLY MODULE	NOS	12	1425	17100



117	PM OF 415V UPS PANELS 3X200KVA THREE CUBICLE PER UPS	NOS	4	2868	11472
118	PM OF GENERATOR CIRCUIT BREAKER	NOS	4	1425	5700
119	PM OF BUS TRANSFER SYSTEM PANEL	NOS	4	357	1428
120	PM OF DATA CONCENTRATOR SYSTEM PANEL	NOS	4	357	1428
121	PM OF CO2 PANEL	NOS	4	357	1428
122	PM OF ID FAN VFD PANELS	NOS	8	713	5704
123	PM OF ID FAN VFD BREAKER PANELS & BRAKING RESISTOR	NOS	8	1425	11400
124	PM OF RAPCON CONTROLLER PANEL	NOS	4	713	2852
125	PM OF MAIN FIRE ALARM PANEL	NOS	4	713	2852
126	PM OF 415V AC FUSE DB/ATOMIZING AIR HEATER PANEL / LIGNITE ALF PANEL AT 3.2 METER & ITS MODULE	NOS	8	713	5704
127	PM OF LOCAL PANELS LIKE PANEL FOR LIGNITE GATE VALVE, SPIES VALVE, CHLORINATION SYSTEM PANEL, FIRE HYDRANT PANEL, PTP SYSTEM PANELS, ETP SYSTEM PANELS, ELECTRICAL HEATER ETC.	NOS	30	357	10710
128	PM RELATED TO SCADA PANEL, TRANSDUCER PANEL, DISTURBANCE RECORDER, ETC	NOS	6	713	4278
129	CLEANING OF LIFT CAR OF BOILER -3, 4 & SERVICE BUILDING LIFT (1 JOB CONSIDERED FOR ALL 3 LIFT)	NOS	50	176	8800
130	CHECKING OF EXHAUST FANS AT TG FLOOR, CHARGER ROOMS, BATTERY ROOMS, MCC ROOMS, BLOWER ROOMS (1 JOB CONSIDERED FOR ALL ABOVE FANS)	NOS	50	176	8800
131	POLYTHENE SHEET COVERNG OF ALL ELECTRICAL EQUIPMENT/ SEALING OF FOPH HEATER/ROOF EXHAUST FAN PER KG BASIS	KG	400	176	70400
132	ONLY EXTERNAL CLEANING 150MVA, 220KV/10.5KV GENERATOR TRANSFORMER	NOS	4	2868	11472
133	ONLY EXTERNAL CLEANING 45MVA, 10.5KV/6.6KV UAT	NOS	4	2165	8660
134	ONLY EXTERNAL CLEANING 2 / 2.1 MVA 6.6KV/415V TRANSFORMER	NOS	4	713	2852
135	ONLY EXTERNAL CLEANING 1.6 MVA 6.6KV/415V TRANSFORMER	NOS	4	713	2852
136	ONLY CLEANING BY BLOWER FOR FLOAT & BOOST CHARGERS	NOS	56	357	19992
137	ASSISTANCE DURING BATTERY CAPACITY TEST FOR REMOVAL OF BATTERY LINK, CLEANING, FIXING, TOPPTING UP, VENT PLUG FOR 110V UPS BATTERY SET	NOS	8	2129	17032
138	ASSISTANCE DURING BATTERY CAPACITY TEST FOR REMOVAL OF BATTERY LINK, CLEANING, FIXING, TOPPTING UP, VENT PLUG FOR 415V UPS BATTERY SET	NOS	4	3572	14288



139	ASSISTANCE DURING BATTERY CAPACITY TEST FOR REMOVAL OF BATTERY LINK, CLEANING, FIXING, TOPPTING UP, VENT PLUG FOR 220V BATTERY SET	NOS	6	2129	12774
140	ASSISTANCE DURING BATTERY CAPACITY TEST FOR REMOVAL OF BATTERY LINK, CLEANING, FIXING, TOPPTING UP, VENT PLUG FOR 110V BATTERY SET AT PATNA	NOS	2	1425	2850
141	ASSISTING IN NUMERICAL TESTING & PROTECTION SCHEME CHECKING FOR 220KV LINE FEEDER & B/C FEEDER AND ITS CONTROL & RELAY PANEL CLEANING	NOS	8	1425	11400
142	ASSISTING IN NUMERICAL RELAY TESTING & PROTECTION SCHEME CHECKING FOR GENERATOR NUMERICAL RELAY PANEL AND ITS CONTROL & RELAY PANEL CLEANING	NOS	4	2851	11404
143	ASSISTING IN NUMERICAL RELAY TESTING & PROTECTION SCHEME CHECKING FOR INCOMER 1 & 2, B/C FEEDERS OF 415V LT SWITCHGEARS	NOS	10	713	7130
144	ASSISTING IN NUMERICAL RELAY TESTING & PROTECTION SCHEME CHECKING FOR 11/6.6 KV SWGR AT PATNA	NOS	4	1425	5700
145	ASSISTING IN NUMERICAL RELAY TESTING & PROTECTION SCHEME CHECKING FOR 6.6KV SWGR. I/C & TIE FEEDERS	NOS	10	713	7130
146	ASSISTING IN NUMERICAL RELAY TESTING & PROTECTION SCHEME CHECKING FOR 6.6KV TRANSFORMER FEEDERS	NOS	20	713	14260
147	ASSISTING IN NUMERICAL RELAY TESTING & PROTECTION SCHEME CHECKING FOR HT/LT MOTOR FEEDER	NOS	20	713	14260
148	ASSISTING IN SERVICING/DEFECT WORK WITH SERVICE ENGINEER i.e. UPS/ CHARGER/ACTUATOR/LA CURRENT ANALAYSE/THERMOGRAPHY/VFD/BATTERY OH/OTHER MISC WORK (ONE TECHNICIAN/ DAY)	NOS	50	731	36550
149	ASSISTING IN SERVICING/DEFECT WORK WITH SERVICE ENGINEER i.e. UPS/CHARGER/ACTUATOR/LA CURRENT ANALAYSE/THERMOGRAPHY/VFD/BATTERY OH/OTHER MISC WORK (ONE HELPER/DAY)	NOS	70	713	49910
150	ASSISTING IN TAN DELTA & CAPACITANCE, PI MEASUREMENT BY REMOVING & RE-FIXING THE REQUIRED CONNECTIONS /JUMPER, CLEANING BUSHING FOR 125MW, 10.5KV GENERATOR	NOS	4	1425	5700



151	ASSISTING IN TAN DELTA & CAPACITANCE, PI MEASUREMENT BY REMOVING & RE-FIXING THE REQUIRED CONNECTIONS /JUMPER, CLEANING BUSHINGS, ETC FOR 150MVA, 220KV/10.5KV GENERATOR TRANSFORMER	NOS	4	2851	11404
152	ASSISTING IN TAN DELTA & CAPACITANCE, PI MEASUREMENT BY REMOVING & RE-FIXING THE REQUIRED CONNECTIONS /JUMPER, CLEANING BUSHINGS, ETC FOR 45MVA, 10.5KV/6.6KV UNIT AUX. TRANSFORMER	NOS	4	1425	5700
153	ASSISTING IN TAN DELTA & CAPACITANCE, PI MEASUREMENT BY REMOVING & RE-FIXING THE REQUIRED CONNECTIONS /JUMPER, CLEANING BUSHINGS, ETC FOR 220KV CT / EMVT	NOS	40	713	28520
154	ONLY CLEANING OF 415V UPS BATTERY SET (204 CELLS, 2.2V, 1715AH)	NOS	6	1425	8550
155	ONLY CLEANING OF 220V UNIT/STATION BATTERY SET (108 CELLS, 2.2V, 1285AH)	NOS	18	1425	25650
156	ONLY CLEANING OF 110V UPS BATTERY SET (170 CELLS, 2.2V, 645AH)	NOS	24	1425	34200
157	GREASING WORK IN ALL HT MOTORS OF SLPP-2	NOS	6	5000	30000
158	GREASING WORK IN ALL LT MOTORS OF SLPP-2 (WHEREVER GREASING PROVISION IS THEIR)	NOS	6	5700	34200
159	AIR PATH, MOTOR BODY AND FAN COVER CLEANING AFTER REMOVING THE FAN COVER IN HT MOTORS (OTHER THAN PM)	NOS	10	1425	14250
160	UP TO 1.2 KW MOTOR BEARING REPLACEMENT INCLUDING CABLE REMOVAL & RE-CONNECTION, CLEANING SHIFTING ETC	NOS	20	713	14260
161	LIFT OPERATION WORK DURING AOH/COH IN SHIFT	PER SHIFT	75	550	41250
A2	TOTAL SOR VALUE FOR MAIN PLANT SLP2 PM	FOR TW	O YEAR		3849614



A3 : PRICE SCHEDULE FOR 5MW & 1 MW SOLAR PLANT PM (PACKAGE-A) (EXCLUDING GST)						
Sr. No.	ITEM DESCRIPTION	UOM	QUANTI TY FOR TWO YEAR	UNIT SOR RATE WITHOUT GST IN Rs.	TOTAL SOR PRICE W/O GST FOR TWO YEARS IN Rs.	
1	PM OF 11 KV HT PANELS 7 VERTICAL (TO BE DONE AFTER 17:30 HOURS)	NO	3	4338	13014	
2	PM OF 66 KV LINE- CONTROL & RELAY PANEL 2 VERTICALS (TO BE DONE AFTER 17:30 HOURS)	NO	2	821	1642	
3	PM OF RTCC PANEL (TO BE DONE AFTER 17:30 HOURS)	NO	2	541	1082	
4	PM OF 6.6 MVA, 66/11KV TRANSFORMER CONTROL & RELAY PANEL (TO BE DONE AFTER 17:30 HOURS)	NO	3	725	2175	
5	PM OF 110V BATTERY CHARGER (TO BE DONE AFTER 17:30 HOURS)	NO	2	541	1082	
6	PM OF 110 V BATTERY BANK (IN NORMAL HOURS)	NO	12	721	8652	
7	PM OF ACDB (TO BE DONE AFTER 17:30 HOURS)	NO	2	821	1642	
8	PM OF 1000 KVA T/R (TO BE DONE AFTER 17:30 HOURS)	NO	20	1450	29000	
9	PM OF INVERTER PANELS (TO BE DONE AFTER 17:30 HOURS)	NO	60	1088	65280	
10	PM OF INVERTER BREAKER PANELS (TO BE DONE AFTER 17:30 HOURS)	NO	40	450	18000	
11	INVERTER FILTER CLEANING ONLY BY BLOWER (IN NORMAL HOURS)	NO	125	180	22500	
12	PM OF 66 KV TRANSFORMER WITH MARSHALLING BOX (TO BE DONE AFTER 17:30 HOURS)	NO	2	2171	4342	
13	PM OF 66 KV LINE BAY WITH BREAKER (TO BE DONE AFTER 17:30 HOURS)	NO	4	1806	7224	
14	ASSISTING IN SERVICING/DEFECT WORK WITH SERVICE ENGINEER i.e. INVERTER/ CHARGER/BREAKER / BATTERY O/H / OTHER MISC WORK (ONE TECHNICIAN/ DAY)	NO	6	731	4386	
15	ASSISTING IN SERVICING/DEFECT WORK WITH SERVICE ENGINEER i.e. INVERTER/ CHARGER/BREAKER / BATTERY O/H / OTHER MISC WORK (ONE HELPER /DAY)	NO	6	713	4278	
A3	TOTAL SOR VALUE FOR SOLAR PLANT	 PM FOR	TWO YEAR	₹	184299	



## A4 : PRICE SCHEDULE FOR MAIN PLANT ELECTRICAL SLPP-1& 2 DEFECT ATTENDING & TROUBLE SHOOTING (PACKAGE-A) (EXCLUDING GST)

Sr. No.	ITEM DESCRIPTION	UOM	QUANTI TY FOR TWO YEAR	UNIT SOR RATE WITHOUT GST IN Rs.	TOTAL SOR PRICE W/O GST FOR TWO YEARS IN Rs.
1.1	CHECKING & ATTENDING GENERAL DEFECT OF LIMITSWITCH/ PUSH BUTTON/POWER SUPPLY FOR BOILER LIFT	NO	20	357	7140
1.2	CHECKING & ATTENDING GENERAL DEFECT OF LIMITSWITCH/ PUSH BUTTON/POWER SUPPLY FOR SERVICE BUILDING /TG LIFT	NO	5	357	1785
2A	SUMP PUMP - REMOVAL/ RECONNECTION OF POWER CABLE & WITH STARTER. CHECKING OF SUMP PUMP FOR NOT TAKING START /ATTENDING SAME	NO	50	357	17850
2 B	BEYOND DAY WORKING HOURS- SUMP PUMP REMOVAL/RECONNECTION OF POWER CABLE & WITH STARTER. CHECKING OF SUMP PUMP FOR NOT TAKING START /ATTENDING SAME	NO	10	500	5000
2 C	SHIFTING & REPLACEMENT JOB OF INSULATION MAT AT VARIOUS MCC ROOM	METE R	20	713	14260
ЗА	CHECKING OF LOWER CAPACITY HOIST FOR NOT OPERATING & RECTIFICATION	NO	50	357	17850
3 B	MOTOR BREAK /COIL REPLACEMENT OF HOIST	NO	12	713	8556
3 C	CHECKING OF WARE HOUSE/WORK SHOP/CWPH/TG BUILDING EOT CRANE FOR NOT WORKING & ATTENDING SAME.	NO	10	713	7130
3 D	THRUSTER MOTOR REPLACEMENT OF 175/40 TON EOT CRANE	NO	12	713	8556
3 E	BRAKE COIL REPLACEMENT OF 175/30 TON EOT CRANE	NO	2	713	1426
3 F	CHECKING OF HOIST WITH SAFETY DEPT.	NO	20	180	3600
3 G	HOIST CONTROL WIRING MODIFICATION WORK	NO	4	713	2852
3 H	PENDENT REPLACEMENT OF HOIST	NO	4	357	1428
4A	TRANSDUCER/ ENERGY METER REMOVAL & REFIXING FOR REPAIR/CALIBRATION/CHECKING	NO	60	357	21420
4 B	FAN COVER REMOVAL & FIXING OF HT MOTORS AFTER 17.30 AND BEFORE 8:30 AM	NO	20	800	16000
5A	POWER, SPACE HEATER AND EARTHING CABLE REMOVA & RECONNECTION OF HT MOTOR	NO	16	713	11408
5 B	FAN COVER REMOVAL & FIXING OF HT MOTORS	NO	50	713	35650
5 C	GREASING OF HT MOTOR BEARINGS PER INCIDENT (OTHER THAN GREASING DURING PM)	NO	40	178	7120



5 D	CHANGING OF OLD GREASE OF HT MOTOR <u>DE/</u> <u>NDE ONE SIDE</u> AFTER OPENING BEARING COVER	NO	20	713	14260
5 E	AIR COOLER/COOLING FAN/PUMP/MPTOR MOUNTING/ FILTER /GUNNEY BAG CLEANING/ WATER SPRAY SYSTEM OF ID FANS MOTOR	NO	30	357	10710
5 F	SPARE HT MOTOR SPACE HEATER CURRENT MEASUREMENT AT WORKSHOP / WARE HOUSE	NO	20	142	2840
5 G	SPACE HEATER CABLE CONNECTION OF HT/LT MOTORS AT WORKSHOP / WARE HOUSE	NO	20	178	3560
5 H	CHECKING OF HT MOTOR FOR TRIPPING / NOT TAKING START/ UNBALANCE CURRENT -SHALL INCLUDE MEGGER/WR MEASUREMENT ALSO	NO	24	713	17112
6	CHECKING OF 6.6 KV BREAKER FOR NOT CLOSING/TRIPPING/WORKING/ATTENDING SAME	NO	70	428	29960
7	CHECKING OF ESP FIELD FOR POWER SUPPLY NOT COMING, TRIPPING, OCC/SCC TEST, BDV CONTROLLER NOT WORKING/ CHECKING OF NEW / REPAIRED CONTROLER / CARDS INCLUDING SHIFTING FROM WARE HOUSE AND SENT BACK TO WARE HOUSE & CARD/ CONTROLLER UNPACKING / PACKING	NO	60	713	42780
8A	SILICA GEL REPLACEMENT AT GT BUSDUCT UAT/ST/GT (OTHER THAN PM)	NO	30	178	5340
8 B	HT/LT TRANSFORMERS/ESP FIELD TRANSFORMER SILICAGEL REPLACEMENT (OTHER THAN PM)	NO	50	267	13350
8 C	OIL TOPPING IN CONSERVATOR TANK OF X'MER CONSERVATOR, CT, CVT, EMVT ETC	NO	30	178	5340
8 D	OIL LEAKAGE ATTENDING - GT, ST, UAT	NO	6	713	4278
8 E	OIL LEAKAGE ATTENDING UST, ST, SST, ESP FIELD X'MERS	NO	12	357	4284
8 F	OIL SAMPLE TAKING OF TRANSFORMER PER INCIDENT	NO	70	357	24990
9.1 A	BOTH SIDE (DE & NDE) BEARING INSPECTION / HT MOTOR DISMENTALLING & ASSEMBLING OF MOTOR AT LOCATION / WARE HOUSE	NO	2	5000	10000
9.1 B	BOTH SIDE (DE & NDE) BEARING REPLACEMENT FOR LT MOTOR <=7.5KW INCLUDING DISMENTALLING & ASSEMBLING OF MOTOR,	NO	70	357	24990
9.1 C	BOTH SIDE (DE & NDE) BEARING REPLACEMENT FOR MOTOR >7.5 KW & <=15KW INCLUDING DISMENTALLING & ASSEMBLING OF MOTOR,	NO	12	713	8556
9.1 D	BOTH SIDE (DE & NDE) BEARING REPLACEMENT FOR MOTOR >15KW & <=30KW INCLUDING DISMENTALLING & ASSEMBLING OF MOTOR,	NO	2	713	1426
91 E	BOTH SIDE (DE & NDE) BEARING REPLACEMENT FOR MOTOR >30KW & < =75KW INCLUDING DISMENTALLING & ASSEMBLING OF MOTOR,	NO	6	1082	6492



9.1 F	BOTH SIDE (DE & NDE) BEARING REPLACEMENT FOR MOTOR >75 KW & <= 125 KW INCLUDING DISMENTALLING & ASSEMBLING OF MOTOR,	NO	2	2165	4330
9.1 G	BOTH SIDE (DE & NDE) BEARING REPLACEMENT FOR MOTOR >125 KW & <=175 INCLUDING DISMENTALLING & ASSEMBLING OF MOTOR,	NO	2	2165	4330
9.2	CHECKING OF ABNORMAL SOUND FROM PUMP /LOAD/MOTOR & GREASING IN DE & NDE BOTH SIDE FOR MOTORS	NO	30	357	10710
9.3	IR, WR CHECKING OF SPARE/ REPAIRED MOTOR RECEIVED AFTER REPAIR AT WORKSHOP	NO	25	357	8925
9.4 A	MAKING SPARE MODULE READY FOR MOTOR OF UP TO 50KW, 125A	NO	6	713	4278
9.4 B	MAKING SPARE MODULE READY FOR MOTOR >50KW & <= 125 KW, 400A	NO	3	1425	4275
9.5 A	CHECKING OF LT MOTOR FOR TRIPPING ON BMR/ POWER FUSE BLOWN/ NOT TAKING START/ UNBALANCE CURRENT -SHALL INCLUDE MEGGER/WR MEASUREMENT/PUSH BUTTON /FEEDBACK/LIMIT SWITCH CHECKING ALSO FOR MOTOR UP TO 15 KW	NO	500	357	178500
9.5 B	CHECKING OF LT MOTOR FOR TRIPPING ON BMR/ POWER FUSE BLOWN/ NOT TAKING START/ UNBALANCE CURRENT -SHALL INCLUDE MEGGER/WR MEASUREMENT /PUSH BUTTON /FEEDBACK/LIMIT SWITCH CHECKING ALSO FOR MOTOR >15KW & <=75KW	NO	30	357	10710
9.5 C	CHECKING OF LT MOTOR FOR TRIPPING ON BMR/ POWER FUSE BLOWN/ NOT TAKING START/ UNBALANCE CURRENT -SHALL INCLUDE MEGGER/WR MEASUREMENT /PUSH BUTTON /FEEDBACK/LIMIT SWITCH CHECKING ALSO FOR MOTOR >75 KW & <=175	NO	10	713	7130
9.6	NO LOAD TRIAL OF LT MOTORS- DOR/CURRENT/VIBRATION MEASUREMENTS FOR MOTORS	NO	40	285	11400
9.7 A	POWER CABLE, EARTHING CABLE REMOVAL AND RECONNECTION FOR MOTOR OF FRACTIONAL KW	NO	60	178	10680
9.7 B	POWER CABLE, EARTHING CABLE REMOVAL AND RECONNECTION FOR MOTOR >1KW & <=7.5KW	NO	30	285	8550
9.7 C	POWER CABLE, EARTHING CABLE REMOVAL AND RECONNECTION FOR MOTOR >7.5 KW & <=30KW	NO	20	357	7140
9.7 D	POWER CABLE, EARTHING CABLE REMOVAL AND RECONNECTION FOR MOTOR >30KW & <=75KW	NO	16	571	9136
9.7 E	POWER CABLE, EARTHING CABLE REMOVAL AND RECONNECTION FOR MOTOR >75 KW & <= 175 KW	NO	8	713	5704



9.8 A	COOLING FAN/ COVER REPLACEMENT FOR MOTOR OF FRACTIONAL KW	NO	8	176	1408
9.8 B	COOLING FAN/COVER REPLACEMENT FOR MOTOR >1KW & <=7.5KW	NO	6	285	1710
9.8 C	COOLING FAN /COVER REPLACEMENT FOR MOTOR >7.5 KW & <=30KW	NO	4	357	1428
9.8 D	COOLING FAN/COVER REPLACEMENT FOR >30KW & <=75KW	NO	4	428	1712
9.8 E	COOLING FAN/COVER REPLACEMENT FOR MOTOR >75 KW & <= 175 KW	NO	4	713	2852
9.9 A	FOR INSPECTION -DISMANTALING /ASSEMBLEY OF MOTOR OF FRACTIONAL KW	NO	6	180	1080
9.9 B	FOR INSPECTION -DISMANTALING /ASSEMBLEY OF MOTOR >1KW & <=7.5KW	NO	4	357	1428
9.9 C	FOR INSPECTION -DISMANTALING /ASSEMBLEY OF MOTOR >7.5 KW & <=30KW	NO	4	713	2852
9.9 D	FOR INSPECTION -DISMANTALING /ASSEMBLEY OF MOTOR >30KW & <=75KW	NO	2	1082	2164
9.9 E	FOR INSPECTION -DISMANTALING /ASSEMBLEY OF MOTOR >75KW & < =175KW	NO	1	1435	1435
9.10 A	REMOVAL/REPLACEMENT/REFIXING, SHIFTING FROM LOCATION TO WORKSHOP OR CONTAINER, & FROM WORKSHOP TO MOTOR LOCATION FOR LIG CONVEYOR AND AIR LOCK FDR MOTOR AFTER 17:30 AND BEFORE 8:30	NO	10	1500	15000
9.10B	REMOVAL/REPLACEMENT/REFIXING, SHIFTING FROM LOCATION TO WORKSHOP OR CONTAINER, & FROM WORKSHOP TO MOTOR LOCATION FOR MOTOR <=7.5KW	NO	60	357	21420
9.10C	REMOVAL/REPLACEMENT/REFIXING, SHIFTING FROM LOCATION TO WORKSHOP OR CONTAINER, & FROM WORKSHOP TO MOTOR LOCATION FOR MOTOR >7.5 KW & <=30KW	NO	30	713	21390
9.10D	REMOVAL/REPLACEMENT/REFIXING, SHIFTING FROM LOCATION TO WORKSHOP OR CONTAINER, & FROM WORKSHOP TO MOTOR LOCATION FOR MOTOR >30KW & <=75KW	NO	6	713	4278
9.10E	REMOVAL/REPLACEMENT/REFIXING, SHIFTING FROM LOCATION TO WORKSHOP OR CONTAINER, & FROM WORKSHOP TO MOTOR LOCATION FOR MOTOR >75KW & < =175KW	NO	14	1082	15148
9.11A	LOADING AND UNLOADING AT WORKSHOP/OFFICE OF MOTOR OF FRACTIONAL KW	NO	20	142	2840
9.11B	LOADING AND UNLOADING AT WORKSHOP/OFFICE OF MOTOR >1KW & <=7.5KW	NO	50	157	7850
9.11C	LOADING AND UNLOADING AT WORKSHOP/OFFICE OF MOTOR >7.5KW & <=30KW	NO	3	178	534



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9.11D	LOADING AND UNLOADING AT WORKSHOP/OFFICE OF MOTOR >30KW &	NO	2	285	570
9.110	<=75KW	INO	2	203	370
	LOADING AND UNLOADING AT				
9.11E	WORKSHOP/OFFICE OF MOTOR >75KW & <	NO	2	357	714
•=	=175KW		_		
	ANY WORK I.E KEY REPLCMENT, CABLE				
	CONNECTION REMOVAL, FAN COVER & FAN				
9.12A	REPALCEMENT WORK, ONLY MOTOR REMOVING	NO	10	1000	10000
	OR FIXING FOR LIG CONVEYOR AND AIR LOCK				
	FDR MOTOR AFTER 17:30 AND BEFORE 8:30				
9.12B	REPLACEMENT OF FAN COVER FOR MOTOR	NO	4	178	712
	<=7.5KW				
9.12C	REPLACEMENT OF FAN COVER FOR MOTOR >7.5	NO	4	285	1140
0.120	KW & <=30KW		'	200	1110
9.12D	REPLACEMENT OF FAN COVER FOR MOTOR	NO	2	357	714
3.120	>30KW & <=75KW	140	2	337	717
9.12E	REPLACEMENT OF FAN COVER FOR MOTOR	NO	2	357	714
9.12L	>75KW & < =175KW	NO	2	337	7 14
	CHECKING OF HT MOTOR FOR TRIPPING / NOT				
10	TAKING START/ UNBALANCE CURRENT	NO	40	713	20520
10	/FEEDBACK PROBLEM/TAKING HIGH	NO	40	713	28520
	CURRENT/PUSHBUTTON PROBLEM				
44	INDICATION LAMP REPLACEMENT IN ANY	NO	000	470	05000
11	FEEDER / EQUIPMENT (OTHER THAN PM)	NO	200	176	35200
40.4	CONTACTOR REMOVAL /REPLACEMENT (OTHER	NO	40	057	4.4000
12.1	THAN PM) UP TO 32 AMP	NO	40	357	14280
40.0	CONTACTOR REMOVAL /REPLACEMENT (OTHER	NO	40	574	0050
12.2	THAN PM) > 32 AMP <=100 AMP	NO	12	571	6852
40.0	CONTACTOR REMOVAL /REPLACEMENT (OTHER			-10	,
12.3	THAN PM) >100 <=400 AMP	NO	8	713	5704
	CABLE SHIFTING FROM STORE TO LOCATION				
13	AND LAYING, DRASSING (KG BASIS)	KG	12000	15.57	186840
	REMOVING AND REFIXING OF CARBON BRUSH				
14	AFTER CLEANING IN GENERATOR EXCITER	NO	12	713	8556
16	MK PANEL/RELAY PANEL CLEANING/TIGHTNESS	NO	2	713	1426
10	PUSH BUTTON REPLACEMENT/FUSE BASE FOR		_	7 10	
17	ANY EQUIPMENT	NO	70	357	24990
	BATTERY SET DISCHARGE TEST ARRANGEMENT				
	INCLUDING SHIFTING OF DISCHARGE RESISTOR				
18	& CABLE & CONNECTION & REMOVAL AFTER JOB	NO	10	713	7130
	COMPLETION				
	ATOMISING AIR HEATER REPLACEMENT				
19	INCLUDING LIFTING, SHIFTING FROM WARE	NO	2	1800	3600
	HOUSE / OFFICE AND SENT BACK.				
20.1A	GLANDING OF CONTROL CABLE OF UP TO 5C	NO	30	178	5340
20.1B	GLANDING OF CONTROL CABLE OF 7C, 10C, 14C	NO	24	357	8568
	GLANDING OF ARMOURED POWER CABLE UP TO				
20.2A	6 SQ MM	NO	40	178	7120
	<u> </u>	l			



20.2B	GLANDING OF ARMOURED POWER CABLE OF 10 TO 35 SQMM	NO	20	357	7140
20.2C	GLANDING OF ARMOURED POWER CABLE OF 50 TO 120 SQ MM	NO	60	357	21420
20.2D	GLANDING OF ARMOURED POWER CABLE OF 150 TO 240 SQ MM	NO	40	357	14280
20.2E	GLANDING OF ARMOURED POWER CABLE OF 300 TO 400 SQ MM	NO	8	713	5704
20.2F	GLANDING OF ARMOURED POWER CABLE OF, 500 TO 1000 SQ MM	NO	2	713	1426
21.1A	TERMINATION OF CONTROL CABLES OF UP TO 5C	NO	30	357	10710
21.1B	TERMINATION OF CONTROL CABLES OF 7C, 10C, 14C	ОИ	24	713	17112
21.2A	TERMINATION OF POWER 3C OR 4C CABLES UP TO 6 SQ MM	NO	40	357	14280
21.2B	TERMINATION OF POWER 3C OR 4C CABLES OF 10 SQ MM, 35 SQMM	NO	20	357	7140
21.2C	TERMINATION OF POWER 3C OR 4C CABLES OF 50 TO 120 SQ MM	NO	60	357	21420
21.2D	TERMINATION OF POWER 3C OR 4C CABLES OF 150 TO 240 SQ MM	NO	40	357	14280
21.2E	TERMINATION OF POWER 3C OR 4C CABLES OF 300 TO 400 SQ MM	NO	8	713	5704
21.2F	TERMINATION OF POWER 1C CABLES OF 500 TO 1000 SQ MM	NO	8	1082	8656
22.1	MEASUREMENT OF VOLTAGE AND GRAVITY FOR COMPLETE BATTERY SET OF 110V/220V/415V OTHER THEN PM	NO	8	713	5704
22.2	UP TO 350 AH AH BATTERY CELL REPLACEMENT (SHIFTING FROM WARE HOUSE TO LOCATION, REPLACEMENT, SCRAP CELL RETURN)	NO	10	713	7130
22.3	FROM 350 AH TO 2000 AH BATTERY CELL REPLACEMENT (SHIFTING FROM WARE HOUSE TO LOCATION, REPLACEMENT, SCRAP CELL RETURN)	NO	20	2165	43300
22.4	EARTH FAULT FINDING IN 220 V DC AND 415 AC CIRCUIT	NO	20	713	14260
22.5	DM WATER TOPPING IN BATTERY SET PER CELL (RATES FOR QRY IS LESS THAN 7 CELL PER SET) OTHER THAN PM)	NO	100	178	17800
22.6	ATTENDING OF BATTERY CELL LEAKAGE PER INCIDENT	NO	20	357	7140
22.7	REPLACEMENT OF PINON/KEY OR BOTH OF LIGNITE AIR LOCK FEEDER MOTOR OTHER THAN PM	NO	20	713	14260
23.1	MECHANICAL ALIGNMENT OF 220 KV ISOLATORS / EARTH SWITH NOT REALEASE	NO	32	357	11424
23.2A	CHECKING OF 220 KV BREAKER / ISOLATORS FOR NOT CLOSING / OPENING	NO	20	357	7140



23.3	CHECKING OF 220KV BREAKER COMPRESSOR FOR NOT STARTING	NO	8	713	5704
23.4	LA COUNTER REPLACEMENT	NO	12	713	8556
23.5	HOT SPOT/TIGHTNESS ATTENDING AT GT-1 & GT-2, ZL-2, BUSCOUPLER BAY, GV-1 & OTHER LINE AT HIEGHT 6 MTR	NO	80	713	57040
23.6	OIL LEAKAGE ARRESTING FROM 220KV CT / CVT /EMVT	NO	4	713	2852
24	CHECKING OF ACTUATOR FOR NOT WORKING/ CONTROL FUSE BLOWN /RUN TIME FAULT/ LIMIT & TORQUE SWITCH SETTING/FEEDBACK PROBLEM.	NO	755	571	431105
25A	MAIN FUEL TRIP(MFT) ONLY ACTUATOR REMOVAL & REFIXING	NO	10	571	5710
25B	MAIN FUEL TRIP(MFT) ACTUATOR AND STEM NUT REMOVAL & REFIXING ATER ATTENDING STEM NUT ASSEMBLY PROBLEM	NO	24	1082	25968
26	SPIESS VALVE ACTUATOR REMOVAL & RE- FIXING & LIMIT SWITCH SETING	NO	80	713	57040
27	CHECKING & REPLACEMENT OF PULL ROD ASSEMBLY/ CLUTCH RING/CLUTCH FORK ASSMBLY/	NO	50	713	35650
28.1	REMOVAL AND REFIXING OF ACTUATOR< 5 KW RATING INCLUDING LIMIT/TORQUE SWITCH SETTING AND TRAIL FROM CONTROL ROOM (WITHOUT POWER & CONTROL CABLE REMOVAL)	NO	140	713	99820
28.2	REMOVAL AND REFIXING OF ACTUATOR >= 5 KW RATING INCLUDING LIMIT/TORQUE SWITCH SETTING AND TRAIL FROM CONTROL ROOM (WITHOUT POWER & CONTROL CABLE REMOVAL)	NO	20	898	17960
29	ELECTRONIC CARD REPLACEMENT JOB FOR ALL TYPE OF ELECTRICAL PANEL/CHARGER/VFD ETC	NO	40	536	21440
30	24V/48V/110V/220V CHARGER CHECKING FOR NOT WORKING	NO	40	713	28520
31	ESP HOPPER / SHAFT/ SUPPORT HEATER / ATOMISING AIR HEATER / OTHER ELECTRICAL HEATER CHECKING FOR NOT WORKING AND ATTENDING THE SAME.	NO	40	357	14280
32	GREASING PIPE FIXING ON HT/LT MOTORS INCLUDING THREADING AT WORK SHOP	NO	10	713	7130
33	CHECKING OF LT BREAKER FOR NOT OPERATING IN TEST AND SERVICE POSITION	NO	24	713	17112
34	CHECKING OF M/C AT WORKSHOP FOR NOT WORKING/ATTENDING SAME	NO	6	357	2142
35a	REPLACEMENT OF DEFECTIVE DRAW OUT TYPE RELAYS	NO	40	357	14280
35b	REPLACEMENT OF DEFECTIVE RELAYS WHICH REQUIRED REMOVING & RE-FIXING OF WIRES	NO	30	570	17100
36	CHECKING OF PANEL SPACE HEATER OF LT PANELS	NO	6	357	2142



37	CABLE CONNECTION & REMOVAL FOR MISCALLNEOUS WORKS	NO	8	713	5704
38	WELDING M/C POWER CONNECTION & REMOVAL	NO	20	357	7140
39	LIGNITE AIR LOCK FEEDER MOTOR TB CHECKING OTHER THAN PM/ HT MOTOR TERMINAL CHECKING OTHER THAN PM	NO	16	357	5712
40	GENERATOR TRANSFORMER COOLING FAN REMOVAL & RE-INSTALATION /REPLACEMENT	NO	20	1871	37420
41	SHIFTING & REPLACEMENT OF EMVT/CVT/CT/LA/BREAKER COMPRESSOR/HT MOTORS	NO	16	4037	64592
42	PAINTING OF ANY ELECTRICAL EQUIPMENT (IN SQ. FT)	SQ. FT	100	36	3600
43	REMOVAL AND REFIXING OF ACTUATOR< 5 KW RATING INCLUDING LIMIT/TORQUE SWITCH SETTING AND TRAIL FROM CONTROL ROOM (WITH POWER & CONTROL CABLE REMOVAL & RECONNECTION)	NO	2	713	1426
44	REMOVAL AND REFIXING OF ACTUATOR >= 5 KW RATING INCLUDING LIMIT/TORQUE SWITCH SETTING AND TRAIL FROM CONTROL ROOM (WITH POWER & CONTROL CABLE REMOVAL & RECONNECTION)	NO	2	713	1426
45	CONNECTION AND REMOVAL SPARE CHARGER FOR CHARGING BATTERY CELLS INCLUDING SHIFTING FROM WAREHOUSE TO LOCATION AND VICE VERESA.	NO	2	713	1426
46	SHIFTING & ERECTION OF STEEL FOR PANEL/DB/JB ETC INCLUDING WELDING, CUTTING	KG	100	142	14200
47	SHIFTING & ERECTION OF DB/JB/PANELS/ANY ELECTRICAL EQUIPMENT INCLUDING WELDING & MOUNTING	KG	1325	64.15	84998.75
48	VARIOUS SELECTOR SWITCH REPLACMENT (OTHER THAN PM)	NO	40	357	14280
49.1A	REMOVAL AND RE-TERMINATION OF CONTROL CABLES (OTHER THAN AT 9.7) 2C,3C, 4C	NO	100	357	35700
49.1B	REMOVAL AND RE-TERMINATION OF CONTROL CABLES (OTHER THAN AT 9.7) 7C, 10C	NO	15	357	5355
49.1C	REMOVAL AND RE-TERMINATION OF CONTROL CABLES (OTHER THAN AT 9.7) 14 C	NO	12	713	8556
49.2A	REMOVAL AND RE-TERMINATION OF ARMOURED POWER CABLES (OTHER THAN AT 9.7) UP TO 6 SQ MM	NO	20	357	7140
49.2B	REMOVAL AND RE-TERMINATION OF ARMOURED POWER CABLES (OTHER THAN AT 9.7) 10 SQ MM, 16 SQMM	NO	20	357	7140
49.2C	REMOVAL AND RE-TERMINATION OF ARMOURED POWER CABLES (OTHER THAN AT 9.7) 25 SQ MM, 35 SQ MM, 50 SQ MM	NO	40	357	14280



A4	TOTAL SOR VALUE FOR MAIN PLANT DEFECT FOR TWO YEAR				2799674
56	ARRANGING FILLED OXYGEN AND ACETYLENE GAS CYLINDERS FOR BATTERY OVERHAULING JOB	NO	5	1169	5845
55	VERTICAL BUS BAS REPLACEMENT IN LT PANELS (ALL THREE PHASE)/ SF6 GAS REFILLING OF 6.6KV / 220 KV BREAKER	NO	40	1435	57400
54	WIRING MODIFICATION IN MODULES / PANELS	NO	10	713	7130
53	PROVIDING ASSISTANCE FOR BALANCING OF HT/LT MOTORS	NO	10	713	7130
52	LT BUS/LINE PT CHECKING & REPLACEMENT / CHECKING & REPLACEMENT OF ESP SHAFT, SUPPORT & HOPPER HEATER	NO	40	713	28520
51	PANEL COOLING FANS CHECKING & REPLACEMENT	NO	40	357	14280
50	SLIDING CONTACT CHECKING & ADJUSTMENT FOR MODULES FOR NON OPERATION OF MOTORS /FEEDERS/ FEEDBACK ETC. (OTHER THAN PM)	NO	80	357	28560
49.2G	REMOVAL AND RE-TERMINATION OF ARMOURED POWER CABLES (OTHER THAN AT 9.7) 1000 SQ MM	NO	2	713	1426
49.2F	REMOVAL AND RE-TERMINATION OF ARMOURED POWER CABLES (OTHER THAN AT 9.7) 400 SQ MM, 500 SQ MM	NO	2	713	1426
49.2E	REMOVAL AND RE-TERMINATION OF ARMOURED POWER CABLES (OTHER THAN AT 9.7) 240 SQ MM, 300 SQ MM	NO	4	713	2852
49.2D	REMOVAL AND RE-TERMINATION OF ARMOURED POWER CABLES (OTHER THAN AT 9.7) 150 SQ MM, 185 SQ MM	NO	8	357	2856
49.2D	REMOVAL AND RE-TERMINATION OF ARMOURED POWER CABLES (OTHER THAN AT 9.7) 70 SQ MM, 120 SQ MM	NO	8	357	2856

<u>A5 :</u>	A5 : PRICE SCHEDULE FOR 5MW & 1 MW SOLAR PLANT DEFECT & TROUBLE SHOOTING (PACKAGE-A) (EXCLUDING GST)							
Sr. No.	ITEM DESCRIPTION	UOM	QUANTI TY FOR TWO YEAR	UNIT SOR RATE WITHOUT GST IN Rs.	TOTAL SOR PRICE W/O GST FOR TWO YEARS IN Rs.			
1	DEFECT CHECKING IN SOLAR PLANT ARRARY. (IN NORMAL DAY HRS)	NO	6	180	1080			
2	12A BOTTEL FUSE CHECKING & REPLACMENT IN ARRARY SJB. (AFTER 17:30 HRS)	NO	15	89	1335			
3	1C X 6SQ MM CU FLXIBLE CABLE LAYING, JOINTING & LUGGING. (WITHOUT EXCAVATION) (RATES FOR OTY LESS THAN 50 MTR AT ONE	MTR	50	89	4450			



	VISIT FOR HIGHER QTR RATES OF PRICE SCHEDULE A-3 ITEM NO.13 WILL BE APPLICABLE)				
4	1C X 70SQ MM CU FLXIBLE CABLE LAYING, JOINTING & LUGGING. (WITHOUT EXCAVATION) (IN NORMAL DAY HRS)	MTR	50	270	13500
5	PV CELL MALE -FEMALE CONNECTOR REPALCEMENT WORK. (AFTER 17:30 HRS)	NO	14	137	1918
6	INVERTER FAN 3-PH SUPPLY PROVIDING WORK. (IN NORMAL DAY HRS)	NO	12	178	2136
7	INVERTER CARD/COOLING FAN REPLACEMENT WORK. (AFTER 17:30)	NO	14	180	2520
8	400A DC FUSE REPLACEMENT WORK. (IN NORMAL DAY HRS)	NO	2	180	360
9	INVERTER POWER & CONTROL CONTECTOR REPLACEMENT WORK (AFTER 17:30 HRS)	NO	2	180	360
10	SFU HANDEL REPLACEMENT WORK. (AFTER 17:30 HRS)	NO	2	180	360
11	SFU HANDLE WITH IT'S ROD REPLACEMENT WORK. (AFTER 17:30 HRS)	NO	2	180	360
12	11KV VCB CONTROL WIRING DEFECT CHECKING WORK. (AFTER 17:30 HRS)	NO	2	369	738
13	110AH BATTERY BANK WATER TOP-UP WORK, OTHER THAN PM (IN NORMAL DAY HRS)	NO	2	355	710
14	11KV LINE & X'MER PNL CONTROL WIRING CHECKING WORK. (AFTER 17:30 HRS)	NO	2	185	370
15	SWITCHYARD BRK PNL & ISOLATOR PNL CONTROL WIRING CHECKING WORK. (AFTER 17:30 HRS)	NO	4	185	740
16	OIL TOP-UP & SILICE GEL REPLACEMENT WORK OF 1KVA X'MER OTHER THAN PM (IN NORMAL DAY HRS)	NO	4	360	1440
17	OIL TOP-UP & SILICE GEL REPLACEMENT WORK OF 6KVA X'MER OTHER THAN PM (IN NORMAL DAY HRS)	NO	2	360	720
18	ABB LT BRK CONTROL WIRING CHECKING & DEFECT RECTIFICATION WORK. (AFTER 17:30 HRS)	NO	4	360	1440
19	PV CELL REPLACEMENT WORK. (AFTER 17:30 HRS)	NO	10	360	3600
20	95 SQMM HT CABLE REMOVAL & RE- TERMINATION WORK AT PNL& X'MER SIDE. (AFTER 17:30 HRS)	NO	2	547	1094
21	SWITCHYARD ISOALTOR ALIGMENT WORK. (AFTER 17:30 HRS)	NO	4	360	1440
22	CABLE EARTH FAULT CHECKING WORK. (AFTER 17:30 HRS)	NO	4	540	2160
23	OIL LEAKAGE ATTENDING JOB FOR 1MW & 5MW TRANSFORMER (AFTER 17:30 HRS)	NO	2	713	1426
24	OIL SAMPLE TAKING OF TRANSFORMER PER INCIDENT (IN NORMAL DAY HRS)	NO	4	357	1428



A5	TOTAL SOR VALUE FOR SOLAR PLANT DE	FECT FO	 Dr two ye	EAR	47119
25	BUS PT REPLACEMENT IN 1MW / 5MW SOLAR INCLUDING CONNECTION	NO	1	1434	1434

	A6 : PRICE SCHEDULE FOR UNFORSEEN JOBS (PACKAGE- A) (EXCLUDING GST)						
Sr. No	ITEM DESCRIPTION	UOM	QUA NTITY FOR TWO YEAR	UNIT SOR RATE WITHOUT GST IN Rs.	TOTAL SOR PRICE W/O GST FOR TWO YEARS IN Rs.		
1	SR TECHNICIAN (DEE) - NORMAL 8 HOUR DUTY	DAY	62	550	34100		
2	JR TECHNICIAN (ITI)- NORMAL 8 HOUR DUTY	DAY	60	520	31200		
3	HELPER /WIREMAN - NORMAL 8 HOUR DUTY	DAY	160	500	80000		
4	SR TECHNICIAN (DEE) - OT PER HOUR AFTER NORMAL 8 HRS DUTY	HRS	82	100	8200		
5	JR TECHNICIAN (ITI) - OT PER HOUR AFTER NORMAL 8 HRS DUTY	HRS	80	98	7840		
6	HELPER/WIREMAN - OT PER HOUR AFTER NORMAL 8 HRS DUTY	HRS	200	95	19000		
A6 TOTAL SOR VALUE FOR MAIN PLANT UNFORESEEN FOR TWO YEARS					180340		



# B1. PRICE SCHEDULE FOR PREVENTIVE MAINTENANCE PACKAGE-B (LIGNITE, LIMESTONE & ASH HANDLING SYSTEMS AND EXTERNAL LIGNITE HANDLING SYSTEM AT MANGROL MINES END)

Sr. No.	ITEM DESCRIPTION	UOM	QUANTITY FOR TWO YEAR	UNIT SOR RATE WITHOUT GST IN Rs.	TOTAL SOR PRICE W/O GST FOR TWO YEARS IN Rs.
1	PM OF CONVEYOR MOTOR 200 KW (6.6 KV)	NO	40	1772	70869
2	PM OF MILL ID FAN MOTOR 200 KW (6.6 KV)	NO	18	1772	31891
3	PM OF CRUSHER MOTOR 250 KW (6.6 KV)	NO	22	1772	38978
4	PM OF CONVEYOR MOTOR 300 KW (6.6 KV)	NO	12	1772	21261
5	PM OF MILL-D I.D. FAN MOTOR 300 KW (6.6 KV)	NO	6	1772	10630
6	PM OF TRANSPORT AIR COMPRESSOR MOTOR 310KW (6.6 KV)	NO	24	2126	51026
7	PM OF CONVEYOR MOTOR 410KW (6.6 KV)	NO	6	2126	12756
8	PM OF CRUSHER MOTOR 410 KW (6.6 KV)	NO	22	2126	46774
9	PM OF BALL MILL MOTOR 440 KW (6.6 KV)	NO	18	2362	42522
10	PM OF CONVEYOR MOTOR 450KW (6.6 KV)	NO	6	2126	12756
11	PM OF MILL-D BALL MILL MOTOR 600 KW (6.6 KV)	NO	6	2126	12756
12	PM OF NEW SECONDARY CRUSHER MOTOR 650 KW (6.6 KV)	NO	12	2126	25513
13	PM OF CONVEYOR MOTOR 680 KW (6.6 KV)	NO	6	2126	12756
14	TRANSPORT AIR COMPRESSOR MOTOR 400KW	NO	6	1772	10630
15	CLEANING OF HT MOTOR (6.6 KV)	NO	40	390	15611
16	PM OF LT MOTORS UP TO 3.0 KW (63 TO 100 FRAME)	NO	1200	195	234161
17	PM OF LT MOTORS 3.1 KW TO 3.7 KW (112 FRAME)	NO	162	195	31612
18	PM OF LT MOTORS 3.8 KW TO 9.3 KW (132 FRAME)	NO	350	328	114739
19	PM OF LT MOTORS 9.4 KW TO 15 KW (160 FRAME)	NO	168	343	57697
20	PM OF LT MOTORS 15.1 KW TO 22 KW (180 FRAME)	NO	200	351	70248
21	PM OF LT MOTORS 22.1 KW TO 30 KW (200 FRAME)	NO	80	390	31221
22	PM OF LT MOTORS 30.1 KW TO 45 KW (225 FRAME)	NO	20	390	7805
23	PM OF LT MOTORS 45.1 KW TO 60 KW (250 FRAME)	NO	74	468	34656



24	PM OF LT MOTORS 60.1 KW TO 90 KW (280 FRAME)	NO	130	546	71029
25	PM OF LT MOTORS 90.1 KW TO 200 KW (315 FRAME)	NO	190	624	118642
26	PM OF VIBRATING FEEDER MOTOR RATING 1.4 HP/2.27 HP	NO	36	236	8504
27	PM OF MOTORIZED ACTUATORS < 1 KW	NO	180	390	70248
28	PM OF MOTORIZED ACTUATORS >1 <=5 KW	NO	10	390	3903
29	PM OF 5.5 KW DC MOTORS	NO	18	468	8430
30	PM OF 9 KW DC MOTORS	NO	36	468	16860
31	PM OF 6.3 NM STALL TORQUE MOTOR	NO	18	390	7025
32	PM OF THRUSTER BRAKE MOTORS 0.18 to 2KW, 415V	NO	400	390	156107
33	PM OF HOIST MOTOR (UP & DOWN)	NO	80	477	38128
34	PM OF HOIST TRAVEL MOTOR (LEFT & RIGHT)	NO	80	477	38128
35	PM OF LT MODULES UP TO 10 KW	NO	880	318	279607
36	PM OF LT MODULES 10.1 - 37 KW	NO	500	318	158868
37	PM OF LT MODULES 37.1 - 125 KW	NO	170	437	74271
38	PM OF LT MODULES ABOVE 125 KW	NO	124	794	98498
39	PM OF SWITCH FUSE UNIT UP TO 32 A	NO	300	312	93664
40	PM OF SWITCH FUSE UNIT > 32 A UP TO 125A	NO	200	351	70248
41	PM OF SWITCH FUSE UNIT > 125 A UP TO 630 A	NO	100	390	39027
42	PM OF BREAKER PANEL FOR 2X160 KW MOTOR WITH CONTROL & SOFT STARTER PANEL	NO	6	794	4766
43	PM OF MODULE WITH LT BREAKER PANEL	NO	24	794	19064
44	PM OF HT PANEL JYOTI MAKE VACUUM CIRCUIT BREAKERS/VACUUM CONTACTOR	NO	260	715	185875
45	PM OF HT PANEL BHEL MAKE VACUUM CIRCUIT BREAKERS.	NO	60	715	42894
46	PM OF HT PANEL ABB MAKE VACUUM CIRCUIT BREAKERS/VACUUM CONTACTOR	NO	60	715	42894
47	PM OF HT BUS-19 VERTICALS IN LIG. HANDLING SWGR. (JYOTI MAKE)	NO	2	13406	26812
48	PM OF HT BUS-B 18 VERTICALS IN LIG. HANDLING SWGR (JYOTI MAKE)	NO	2	13406	26812
49	PM OF HT BUS-A 11 VERTICALS IN LIG. MINING SWGR (JYOTI MAKE)	NO	2	6748	13495
50	PM OF HT BUS-B 10 VERTICALS IN LIG. MINING SWGR (JYOTI MAKE)	NO	2	6748	13495
51	PM OF HT PANEL-1 VERTICAL WITH BREAKER AT STACKER MACHINE/BUCKET WHEEL RECLAIMER (1 EACH AT 4 MACHINES) (JYOTI MAKE)	NO	16	794	12709



PM OF HT PANEL OF LOAD BREAK SWITCH-1 VERTICAL	NO	12	794	9532
PM OF HT PANEL-1 VERTICAL WITH BREAKER AT FEEDER BREAKER - KIRLOSKAR MAKE	NO	4	794	3177
PM OF HT BUS-A 7 VERTICALS IN ASH HANDLING SWGR. (JYOTI MAKE)	NO	2	6715	13430
PM OF HT BUS-B 8 VERTICALS IN ASH HANDLING SWGR (JYOTI MAKE)	NO	2	6715	13430
PM OF HT BUS-A 5 VERTICALS IN ASH WATER RECOVERY SWGR (JYOTI MAKE)	NO	2	4725	9449
PM OF HT BUS-B 4 VERTICALS IN ASH WATER RECOVERY SWGR (JYOTI MAKE)	NO	2	4725	9449
PM OF HT BUS-A 7 VERTICALS IN PLANT END ELHS SWGR (ABB MAKE)	NO	2	6286	12571
PM OF HT BUS-B 6 VERTICALS IN PLANT END ELHS SWGR (ABB MAKE)	NO	2	6286	12571
PM OF HT BUS-A 11 VERTICALS IN LIGNITE OCC SWGR (ABB/BHEL MAKE)	NO	3	6485	19455
PM OF HT BUS-B 11 VERTICALS IN LIGNITE OCC SWGR (ABB/BHEL MAKE)	NO	3	6485	19455
PM OF HT BUS-A 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)	NO	2	6485	12970
PM OF HT BUS-B 9 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)	NO	2	6485	12970
PM OF LT BUS SECTION LLH MCC A -25 VERT. DOUBLE FRONT(SIEMENS)	NO	3	14348	43043
PM OF LT BUS SECTION LLH MCC B- 24 VERT. DOUBLE FRONT(SIEMENS)	NO	3	14348	43043
PM OF LT BUS SECTION OLD PCH MCC A - 9 VERT. DOUBLE FRONT(SIEMENS)	NO	3	6471	19412
PM OF LT BUS SECTION OLD PCH MCC B - 8 VERT. DOUBLE FRONT(SIEMENS)	NO	3	6471	19412
PM OF LT BUS SECTION OLD BUNKER MCC A - 7 VERT. DOUBLE FRONT(SIEMENS)	NO	3	5685	17054
PM OF LT BUS SECTION OLD BUNKER MCC B - 6 VERT. DOUBLE FRONT(SIEMENS)	NO	3	5685	17054
PM OF LT BUS SECTION MINING MCC A -4 VERT. DOUBLE FRONT(SIEMENS)	NO	3	3951	11853
PM OF LT BUS SECTION MINING MCC B -3 VERT. DOUBLE FRONT(SIEMENS)	NO	3	3951	11853
PM OF LT BUS SECTION STACKER MCC-7 VERT. SINGLE FRONT FIXED TYPE (C&S / SIEMENS)	NO	16	3177	50838
PM OF FEEDER BREAKER MCC-8 VERT. SINGLE FRONT FIXED TYPE(L&T)	NO	4	3164	12654
	PM OF HT PANEL-1 VERTICAL WITH BREAKER AT FEEDER BREAKER - KIRLOSKAR MAKE  PM OF HT BUS-A 7 VERTICALS IN ASH HANDLING SWGR. (JYOTI MAKE)  PM OF HT BUS-B 8 VERTICALS IN ASH HANDLING SWGR (JYOTI MAKE)  PM OF HT BUS-B 8 VERTICALS IN ASH WATER RECOVERY SWGR (JYOTI MAKE)  PM OF HT BUS-B 4 VERTICALS IN ASH WATER RECOVERY SWGR (JYOTI MAKE)  PM OF HT BUS-B 4 VERTICALS IN PLANT END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 6 VERTICALS IN PLANT END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 11 VERTICALS IN LIGNITE OCC SWGR (ABB/BHEL MAKE)  PM OF HT BUS-B 11 VERTICALS IN LIGNITE OCC SWGR (ABB/BHEL MAKE)  PM OF HT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 9 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 9 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF LT BUS SECTION LLH MCC A -25 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD PCH MCC A - 9 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD PCH MCC B - 8 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD BUNKER MCC A - 7 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD BUNKER MCC B - 6 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD BUNKER MCC B - 6 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD BUNKER MCC B - 6 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC B - 3 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC B - 3 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION STACKER MCC-7 VERT. SINGLE FRONT (SIEMENS)  PM OF LT BUS SECTION STACKER MCC-7 VERT. SINGLE FRONT (SIEMENS)  PM OF LT BUS SECTION STACKER MCC-7 VERT. SINGLE FRONT FIXED TYPE (C&S / SIEMENS)  PM OF FEEDER BREAKER MCC-8 VERT.	VERTICAL  PM OF HT PANEL-1 VERTICAL WITH BREAKER AT FEEDER BREAKER - KIRLOSKAR MAKE  PM OF HT BUS-A 7 VERTICALS IN ASH HANDLING SWGR. (JYOTI MAKE)  PM OF HT BUS-B 8 VERTICALS IN ASH HANDLING SWGR (JYOTI MAKE)  PM OF HT BUS-A 5 VERTICALS IN ASH WATER RECOVERY SWGR (JYOTI MAKE)  PM OF HT BUS-A 5 VERTICALS IN ASH WATER RECOVERY SWGR (JYOTI MAKE)  PM OF HT BUS-B 4 VERTICALS IN ASH WATER RECOVERY SWGR (JYOTI MAKE)  PM OF HT BUS-B 6 VERTICALS IN PLANT END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 1 VERTICALS IN PLANT END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 11 VERTICALS IN LIGNITE OCC SWGR (ABB/BHEL MAKE)  PM OF HT BUS-B 11 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 9 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF LT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF LT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF LT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF LT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF LT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF LT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF LT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF LT BUS SECTION OLD PCH MCC A - 25 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD DCH MCC A - 9 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD BUNKER MCC A - 7 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD BUNKER MCC B - 8 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC A - 4 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC B - 3 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC B - 3 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION STACKER MCC-7 VERT. SINGLE FRONT FIXED TYPE (C&S / SIEMENS)  PM OF FEEDER BREAKER MCC-8 VERT.	VERTICAL  PM OF HT PANEL-1 VERTICAL WITH BREAKER AT FEEDER BREAKER - KIRLOSKAR MAKE  PM OF HT BUS-A 7 VERTICALS IN ASH HANDLING SWGR. (JYOTI MAKE)  PM OF HT BUS-B 8 VERTICALS IN ASH HANDLING SWGR (JYOTI MAKE)  PM OF HT BUS-B 5 VERTICALS IN ASH HANDLING SWGR (JYOTI MAKE)  PM OF HT BUS-A 5 VERTICALS IN ASH WATER RECOVERY SWGR (JYOTI MAKE)  PM OF HT BUS-B 4 VERTICALS IN ASH WATER RECOVERY SWGR (JYOTI MAKE)  PM OF HT BUS-B 4 VERTICALS IN PLANT END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 6 VERTICALS IN PLANT END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 1 VERTICALS IN LIGNITE OCC SWGR (ABB/BHEL MAKE)  PM OF HT BUS-B 11 VERTICALS IN LIGNITE OCC SWGR (ABB/BHEL MAKE)  PM OF HT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF HT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF LT BUS-B 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)  PM OF LT BUS SECTION LLH MCC A -25 VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD PCH MCC A - 9  VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD PCH MCC A - 9  VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD BUNKER MCC A - 7  VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION OLD BUNKER MCC A - 7  VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC A - 4  VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC A - 4  VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC B - 3  VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC B - 3  VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC B - 3  VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC B - 3  VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION MINING MCC B - 3  VERT. DOUBLE FRONT (SIEMENS)  PM OF LT BUS SECTION STACKER MCC-7  VERT. SINGLE FRONT FIXED TYPE (C&S / SIEMENS)  PM OF FEEDER BREAKER MCC-8 VERT.	VERTICAL         NO         12         794           PM OF HT PANEL-1 VERTICAL WITH BREAKER AT FEEDER BREAKER - KIRLOSKAR MAKE         NO         4         794           AT FEEDER BREAKER - KIRLOSKAR MAKE         NO         4         794           PM OF HT BUS-3 7 VERTICALS IN ASH HANDLING SWGR. (JYOTI MAKE)         NO         2         6715           PM OF HT BUS-3 5 VERTICALS IN ASH WATER RECOVERY SWGR (JYOTI MAKE)         NO         2         4725           PM OF HT BUS-4 5 VERTICALS IN ASH WATER RECOVERY SWGR (JYOTI MAKE)         NO         2         4725           PM OF HT BUS-4 7 VERTICALS IN PLANT END ELHS SWGR (ABB MAKE)         NO         2         6286           PM OF HT BUS-4 7 VERTICALS IN PLANT END ELHS SWGR (ABB MAKE)         NO         2         6286           PM OF HT BUS-4 1 VERTICALS IN LIGNITE OCC SWGR (ABB/BHEL MAKE)         NO         3         6485           PM OF HT BUS-8 11 VERTICALS IN LIGNITE OCC SWGR (ABB/BHEL MAKE)         NO         3         6485           PM OF HT BUS-8 10 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)         NO         2         6485           PM OF HT BUS-8 9 VERTICALS IN MINES END ELHS SWGR (ABB MAKE)         NO         2         6485           PM OF HT BUS-8 9 VERTICALS IN MINES END DLHS SECTION (SIEMENS)         NO         2         6485           PM OF IT BUS SE



74	PM OF LT BUS SECTION MCC-5 VERTICAL SINGLE FRONT FIXED TYPE FOR DSS COMP	NO	2	2362	4725
75	PM OF LT BUS SECTION MCC-2 VERTICAL SINGLE FRONT FIXED TYPE FOR 25 DIA CLARIFIER POND	NO	2	2362	4725
76	PM OF LT BUS SECTION A -15 VERT. DOUBLE FRONT ASH HANDLING SWGR. (SIEMENS)	NO	2	8911	17822
77	PM OF LT BUS SECTION B-13 VERT. DOUBLE FRONT ASH HANDLING SWGR.(SIEMENS)	NO	2	8911	17822
78	PM OF LT BUS SECTION-A AWR MCC-7 ASH WATER RECV. SWGR. (SIEMENS)	NO	2	4897	9795
79	PM OF LT BUS SECTION-B AWR MCC-7 ASH WATER RECV. SWGR. (SIEMENS)	NO	2	4897	9795
80	PM OF LT BUS-A 9 VERTICALS IN PLANT END ELHS SWGR (L&T MAKE)	NO	2	6818	13635
81	PM OF LT BUS-B 9 VERTICALS IN PLANT END ELHS SWGR (L&T MAKE)	NO	2	6818	13635
82	PM OF LT BUS-A 9 VERTICALS IN NEW SCH MCC SWGR (C&S MAKE)	NO	2	6818	13635
83	PM OF LT BUS-B 8 VERTICALS IN NEW SCH MCC SWGR (C&S MAKE)	NO	2	6818	13635
84	PM OF LT BUS-A 5 VERTICALS IN NEW FLY ASH MCC SWGR (C&S MAKE)	NO	2	4725	9449
85	PM OF LT BUS-B 6 VERTICALS IN NEW FLY ASH MCC SWGR (C&S MAKE)	NO	2	4725	9449
86	PM OF LT BUS-A 5 VERTICALS IN NEW BED ASH MCC SWGR (C&S MAKE)	NO	2	4725	9449
87	PM OF LT BUS-B 6 VERTICALS IN NEW BED ASH MCC SWGR (C&S MAKE)	NO	2	4725	9449
88	PM OF LT BUS-A 7 VERTICALS IN NEW BUNKER MCC SWGR (C&S MAKE)	NO	2	4897	9795
89	PM OF LT BUS-B 6 VERTICALS IN NEW BUNKER MCC SWGR (C&S MAKE)	NO	2	4897	9795
90	PM OF LT BUS-A 8 VERTICALS IN MINES END ELHS SWGR (L&T MAKE) PMCC-1	NO	2	6101	12201
91	PM OF LT BUS-B 8 VERTICALS IN MINES END ELHS SWGR (L&T MAKE) PMCC-01	NO	2	6101	12201
92	PM OF LT BUS-A 8 VERTICALS IN MINES END ELHS SWGR (L&T MAKE) PMCC-2	NO	2	6101	12201
93	PM OF LT BUS-B 7 VERTICALS IN MINES END ELHS SWGR (L&T MAKE) PMCC-2	NO	2	6101	12201
94	PM OF LT BUS -A 12 VERTICAL IN NEW LIME MILL-D MCC (C&S)	NO	2	7864	15729
95	PM OF LT BUS -B 9 VERTICAL IN NEW LIME MILL-D MCC (C&S)	NO	2	7864	15729



96	PM OF NEW STACKER RECLAIMER MCC SINGLE FRONT VERTICALS	NO	4	4725	18899
97	PM OF LT BUS OF LIGNITE RUN OF POND 04 VERTICAL.	NO	4	3136	12544
98	PM OF L.T. BUS MINES SITE OFFICE	NO	4	4725	18899
99	HT /LT MCC OUTSIDE CLEANING & DOOR TIGHTNESS	NO	40	390	15611
100	PM OF LT OIL FILLED TRANSFORMERS 1 MVA & ABOVE UP TO 2 MVA	NO	52	3122	162352
101	PM OF LT OIL FILLED TRANSFORMERS 500 KVA	NO	20	2349	46970
102	PM OF LT DRY TYPE CAST RESIN TRANSFORMER FROM 400 TO 630 KVA	NO	30	1575	47246
103	PM OF LT DRY TYPE CAST RESIN TRANSFORMER BELOW 125 KVA	ОИ	128	787	100792
104	PM OF NEUTRAL GROUNDING RESISTOR	NO	64	394	25198
105	PM OF 20 KVA TRANSFORMER DRY TYPE FOR ILMS	NO	24	390	9366
106	PM OF MAGNET FOR IN LINE MAGNETIC SEPARATOR HAVING OIL CAP. APROX. 4500 LTR. & RATING 220V	NO	24	794	19064
107	PREVENTIVE MAINTENANCE OF NON- SEGREGATED PHASE BUS DUCT 1.1KV (2000A - 3200A)	NO	36	1181	42522
108	PM OF SCOOP COUPLING PANEL	NO	130	591	76775
109	PM OF SUMP PUMP PANEL	NO	30	397	11915
110	PM OF VENTILATION SYSTEM PANEL	NO	6	397	2383
111	PM OF SERVICE WATER PANEL	NO	2	397	794
112	PM OF DUST EXTRACTION PANEL	NO	4	312	1249
113	PM OF RAIL CLAMP PANEL	NO	2	394	787
114	PM OF SLEW LUBRICATION PANEL	NO	2	394	787
115	PM OF HOOTER PANEL	NO	60	315	18899
116	PM OF ON LINE HEAT TRACING PANEL	NO	20	315	6300
117	PM OF ON LINE (HAG) HEATER PANEL	NO	20	390	7805
118	PM OF HOPPER HEATER PANEL - MILL D	NO	8	394	3150
119	PM OF DUST SUPPRESSION PANEL	NO	12	635	7626
120	PM OF TRAVELING TRIPPER PANEL(LS)	NO	6	635	3813
121	PM OF TABLE FEEDER (LS MILLING) LOCAL PANEL	NO	16	390	6244
122	PM OF TABLE FEEDER (LS MILLING) THYRISTOR PANEL.	NO	16	390	6244
123	PM OF TELESCOPIC SPOUT PANEL / LIGNITE SAMPLING PANEL	NO	12	472	5670
124	PM OF BOOM HOIST & LOWERING PANEL AT RECLAIMER & STACKER M/C	NO	24	394	9449
125	PM OF RACK & PINION GATE PANEL AT SCH	NO	12	794	9532



126	PM OF ELECTRIC CONTROL PANEL AT DIFFERENT SWITCHGEAR ROOM	NO	12	794	9532
127	PM OF IN LINE MAGNETIC SEPARATOR PANEL	NO	24	477	11438
128	PM OF PLOUGH FEEDER PANEL AT BUNKER	NO	2	394	787
129	PM OF VARIABLE FREQUENCY DRIVE PANEL FOR 2X 15 KW	NO	6	477	2860
130	PM OF PLATEN HEATERS OF BELT VULCANIZING MACHINE	NO	10	236	2362
131	PM OF CONTROL PANEL FOR BELT VULCANIZING MACHINE	NO	16	236	3780
132	PM OF CURRENT TRANSDUCER PANEL	NO	8	312	2498
133	PM OF SOFT START PANEL AT RECLAIMER & STACKER M/C	NO	18	794	14298
134	PM OF THYRISTOR PANEL AT RECLAIMER & STACKER M/C	NO	18	794	14298
135	PM OF FIRE WATER BOOSTER PUMP PANEL GATE-4	NO	6	394	2362
136	PM OF SOLAR WATER PUMP PANEL AT GATE-	NO	4	394	1575
137	PM OF LIQUID RESISTANCE STARTER (LS MILLING) PANEL	NO	18	630	11339
138	PM OF VARIABLE VOLTAGE VARIABLE FREQUENCY DRIVE PANEL FOR 2X132 KW MOTOR AT FEEDER BREAKER	NO	6	794	4766
139	PM OF DRY FOG PANEL	NO	18	472	8504
140	PM OF NEW PCH DSS COMP. PANEL	NO	10	472	4725
141	PM OF STACKER MACHINE PCRD SLIP RING	NO	24	472	11339
142	PM OF STACKER MACHINE CENTER PIT POWER JB	NO	24	472	11339
143	PM OF CONTROL PANEL FOR PACKAGE AIR CONDITIONING UNITS	NO	60	315	18899
144	PM OF RELAY CUM FAULT INDICATION PANEL	NO	18	394	7087
145	PM OF CONTROL PANEL FOR ZERO DISCHARGE SUMP PUMP MOTOR	NO	12	390	4683
146	PM OF VFD PANEL OF NEW STACKER RECLAIMER FOR TRAVEL DRIVE	NO	6	787	4725
147	PM OF DELTA-STAR STARTER PANEL FOR 2X132 KW PCRS MOTORS	NO	12	794	9532
148	PM OF HYD. DOOR OPENING PANEL	NO	14	394	5512
149	PM OF NEW EDS PANEL (SINGLE FRONT 16 NOS 3.7 KW STARTER)	NO	6	2362	14174
150	PM OF LOCAL PANEL FOR 55/170KW STAR- DELTA STARTER	NO	12	794	9532
151	PM OF FIELD MARSHALLING PANEL	NO	140	312	43710
152	PM OF POWER JUNCTION BOXES	NO	200	234	46832



153	PM OF 415 V ACDBs	NO	66	787	51971
154	PM OF 220V DCDBs	NO	32	394	12599
155	PM OF CHANGE OVER SWITCHES (63 TO 250A)	NO	40	195	7805
156	PM OF 110V & 230V AC HOOTERS	NO	70	315	22048
157	PM OF ALL CAPACITY HOIST & CONTROL PANEL (1 to 15 ton)	NO	80	787	62995
158	PM OF INTEGRAL TYPE SV/MV/MH LIGHTING FIXTURES	NO	500	203	101470
159	PM OF NON-INTEGRAL TYPE SV/MV/MH LIGHTING FIXTURES	NO	180	273	49174
160	CLEANING OF LOCAL CONTROL PANEL / LP / MLDB / ACDB / BKR CONT. PNL ETC	NO	150	394	59058
161	PM OF 3-PH LIGHTING PANELS	NO	180	433	77956
162	PM OF DC EMERGENCY LAMPS 40W/60W/100W	NO	26	79	2047
163	PM OF DC EMERGENCY LIGHTING PANELS	NO	14	312	4371
164	PM OF LIGHTING FIXTURES & PANELS AT TOWERS	NO	12	2953	35435
165	PM OF LIGHTING JBS	NO	40	97	3868
166	PM OF MAIN LIGHTING DISTRIBUTION BOARDS	NO	80	433	34647
167	PM OF STREET LIGHTING TRANSFORMERS	NO	15	394	5906
168	PM OF 1-PH, 16A RECEPTACLE	NO	150	236	35435
169	PM OF 3-PH, 63A RECEPTACLE	NO	150	354	53152
170	PM OF EXHAUST FANS 0.18 KW, 415V & STARTERS	NO	100	234	23416
171	PM OF SUPPLY AIR FANS 0.37 KW, 415V	NO	20	195	3903
172	PM OF VENTILATION FANS, 1- PHASE, 230 V	NO	30	195	5854
173	PM OF HEAVY-DUTY LIMIT SWITCHES	NO	20	98	1969
174	PM OF TRAVEL END LIMIT SWITCHES	NO	140	98	13780
175	PREVENTIVE MAINTENANCE OF 200AH, 220V DC BATTERY BANK (LEAD-ACID)	NO	48	1561	74932
176	PREVENTIVE MAINTENANCE OF 180AH, 24V DC BATTERY BANK (LEAD-ACID) (2X12 V BATTERY)	NO	48	390	18733
177	CLEANING OF 20A, 237V DC FLOAT CHARGER	NO	60	390	23416
178	CLEANING OF 23A, 295V DC BOOST CHARGER	NO	60	390	23416
179	CLEANING OF 24V CHARGER PANEL	NO	12	390	4683
180	PREVENTIVE MAINTENANCE OF 340/200AH, 220V DC BATTERY BANK VRLA TYPE	NO	30	1093	32783
181	CLEANING OF 70A, 243V DC FLOT CUM 253 VDC BOOST CHARGER	NO	24	390	9366
182	CLEANING OF BATTERY BANK	NO	20	429	8586
183	CLEANING OF UPS BATTERY BANK	NO	32	429	13737
184	DM WATER TOPPING UP OF BATTERY BANK	NO	20	390	7805
185	PM OF EARTH PITS(TREATED)/(UNTREATED)	NO	200	390	78054
186	PM OF LCS/ PUSH BUTTON STATIONS	NO	1500	195	292701



187	POLYTHENE SHEET COVERING OF EQUIPMENTS BEFORE MONSOON	KG	340	78	26538	
188	PM OF 3-PH, 415V 20 KW AIR HEATER	NO	32	390	12489	
189	PM OF 3-PH, 415V 12 KW AIR HEATER	NO	32	390	12489	
190	PM OF HEATER OF 3 PHASE HEATER BANK LIME MILL -1.5 KW	NO	24	156	3747	
191	ASSISTING OF RELAY TESTING OF HT INCOMERS/ TRANSFORMERS / OUT GOING / BUS COUPLERS FEEDERS (INCLUDING RELAYS OF BUS/LINE PTs)	NO	108	394	42522	
192	ASSISTING OF RELAY TESTING OF LT BREAKERS OF INCOMERS / OUT GOING / BUS COUPLERS FEEDERS (INCLUDING RELAYS OF BUS/LINE PTs)	NO	102	394	40159	
193	ASSISTING OF RELAY TESTING OF HT / LT MOTORS	NO	140	394	55121	
194	ASSISTING FOR JOBS WITH EXTERNAL AGENCY LIKE HT/LT BREAKER SERVICING, BATTERY CAPACITY TEST ETC.	MAN DAYS	30	774	23209	
195	AHS HANDLING DRYER PANEL PM	NO	4	195	781	
196	PM OF BREAKER TROLLEYS	NO	4	234	937	
B1.	B1. TOTAL ESTIMATE VALUE FOR LLHS/AHS/LIME AREA PREVENTIVE MAINTENANCE FOR TWO YEARS Rs.					



# PRIFCE SCHEDULE FOR DEFECT MAINTENANCE PACKAGE-B B2. (LIGNITE, LIMESTONE & ASH HANDLING SYSTEMS AND EXTERNAL LIGNITE HANDLING SYSTEM AT MANGROL MINES END)

Sr. No.	ITEM DESCRIPTION	UOM	QUANTITY FOR TWO YEAR	UNIT SOR RATE WITHOUT GST IN Rs.	TOTAL SOR PRICE W/O GST FOR TWO YEARS IN Rs.
1	DRAINING OF LRS TANK FOR ELECTROLYTE. VOLUME: 450 LITERS.	NO	2	76	153
2	CLEANING OF LIQUID RESISTANCE STARTER TANK, DIMENSION: 1000 MM X 900 MM X 900 MM	NO	2	757	1514
3	PAINTING OF LRS TANK INTERNAL SURFACE WITH BLACK MATT PAINT. SURFACE AREA: 2.0-SQ. MTR.	NO	2	757	1514
4	REFILLING OF ELECTROLYTE. VOLUME: 450 LITERS. OF LRS	NO	2	76	153
5	REMOVAL OF SPARE CURRENT TRANSDUCER FROM PANEL AND FIXING THE SAME AND TAKING INTO SERVICE IN OTHER PANEL AGAINST DEFECTIVE ONE.	NO	8	154	1233
6	WIRING MODIFICATIONS OF CONTROL CIRCUITRY IN LOCAL PANELS, MCC, HT PANEL ETC.	NO	60	937	56196
7	REVIVAL AND COMMISSIONING OF LT PANEL, WHICH HAS BECOME OUT OF ORDER WITH SEVERAL COMPONENTS GETTING DAMAGED AND NEED REPLACEMENT.	NO	2	771	1542
8	COMPLETE REWIRING OF CONTROL PANEL & HOIST PANEL OF ALL CAPACITY	NO	4	1528	6111
9	COMPLETE DRY-OUT OF LOCAL CONTROL PANEL/MARSHALLING PANEL/LIGHTING PANEL AND OTHER FIELD PANELS DUE TO INGRESS OF WATER WHILE WATER WASHING OR FIRE FIGHTING.	NO	4	764	3055
10	SHIFTING OF PANEL, CABLE TRAY, EARTH STRIP ETC. (HEIGHT VARIES FROM 0 TO 60 METERS) PER KG.	KG	1800	12	21872
11	PANEL ERECTION AT ITS LOCATION PER KG	KG	1800	9	16350
12	RECTIFICATION & TROUBLESHOOTING IN LOCAL CONTROL PANEL i.e. REPLACEMENT OF BMR/ POWER- CONTROL CONTACTOR/ SFU ETC	NO	30	480	14410



13	RECTIFICATION & TROUBLESHOOTING IN LOCAL CONTROL PANEL i.e. CHECKING/CLEANING OF RELAY/ CONTACTOR & REPLACEMENT OF FUSES/INDICATION LAMP/PBS ETC	NO	30	306	9166
14	SCRAPING AND ONE COAT OF RED OXIDE AND ONE COAT OF PAINT OF ELECTRICAL EQUIPMENT PER SQUARE FOOT.	square foot	40	38	1500
15	DISCONNECTION OF POWER CABLE FROM MOTOR END OF HT MOTORS RANGE 200KW- 680KW	NO	20	382	7639
16	DISCONNECTION OF SPACE HEATING CABLE FROM MOTOR END OF HT MOTORS RANGE 200KW- 680KW	NO	20	153	3055
17	REMOVAL & REPLACEMENT OF COOLING FAN / FAN COVER OF HT MOTORS RANGE 200KW- 680KW	NO	2	573	1146
18	REMOVAL / REPLACEMENT OF DE / NDE END SHIELD COVER OF HT MOTORS, RANGE 200KW - 680 KW	NO	2	701	1401
19	REMOVAL / REPLACEMENT OF DE / NDE BEARING OF HT MOTORS, RANGE 200KW - 680 KW (INCLUDING REMOVAL OF COOLING FAN & END SHIELD COVER)	NO	2	1321	2642
20	CHECKING & MAINTAINING HEALTHINESS OF SPACE HEATER OF HT MOTORS RANGE 200KW- 680KW	NO	2	153	306
21	CONNECTION OF POWER CABLE AT MOTOR END OF HT MOTORS RANGE 200KW- 680KW	NO	14	561	7849
22	GLANDING AND TERMINATION OF SPACE HEATING CABLE AT MOTOR END OF HT MOTORS RANGE 200KW- 680KW	МО	8	151	1211
23	DRYING OUT FOR IMPROVING IR VALUE OF HT MOTORS RANGE 200KW- 680KW (INCL. OF DISMENTLING & RE- ASSEMBLING OF MOTOR)	NO	2	2864	5729
24	REMOVING / RECONNECTING EARTHING CONNECTION OF HT MOTORS RANGE 200KW- 680KW	NO	20	151	3028
25	RE-ERECTION OF HT MOTORS RANGE 200KW- 680KW	NO	6	841	5046
26	RUNNING OF MOTOR BY BYPASSING CERTAIN INTERLOCKS AS FELT NECESSARY BY OPERATION DEPARTMENT OF HT MOTORS RANGE 200KW- 680KW	NO	6	97	583



27	CONNECTION REMOVAL / RECONNECTION / CHANGING FOR DIRECTION OF ROTATION OF POWER CABLE FROM HT PANEL MODULE - ANY SIZE	NO	8	94	750
28	HT MOTOR TERMINAL BOX DIRECTION REPLACEMENT FROM LHS TO RHS OR VICE VERSA (INCL. OF REMOVING OF END COVER, FAN ETC.) OF HT MOTORS RANGE 200KW- 680KW	NO	6	2292	13750
29	SHIFTING OF HT MOTOR FROM LOCATION TO WORKSHOP OR VICE VERSA OF HT MOTORS RANGE 200KW- 680KW	NO	14	2773	38818
30	DISCONNECTION OF POWER CONNECTIONS FROM LT MOTORS / MODULE				
30a	UP TO 11 KW	NO	200	189	37848
30b	11.1 KW TO 75 KW	NO	40	378	15139
30c	75.1 KW TO 175 KW	NO	8	378	3028
30d	DC MOTORS	NO	2	189	378
31	SHIFTING OF MOTOR FROM LOCATION TO ELECTRICAL WORKSHOP / VICE VERSA OF LT MOTORS				
31a	UP TO 11 KW	NO	90	273	24588
31b	11.1 KW TO 75 KW	NO	12	541	6487
31c	75.1 KW TO 175 KW	NO	4	654	2617
31d	DC MOTORS	NO	2	189	378
32	OVERHAULING OF LT MOTORS INCL. BEARINGS, END SHIELDS, FAN- FAN COVER, VARNISH ETC.				
32a	UP TO 11 KW	NO	30	757	22709
32b	11.1 KW TO 75 KW	NO	24	2292	54998
32c	75.1 KW TO 175 KW	NO	8	3055	24444
32d	DC MOTORS	NO	2	1398	2796
33	REPLACEMENT OF DE & NDE BEARING OF MOTORS OF RATING (INCLUSIVE OF DISMENTALING & RE-ASSEMBLING OF MOTOR)				
33a	UP TO 11 KW	NO	30	568	17032
33b	11.1 KW TO 75 KW	NO	10	757	7570
33c	75.1 KW TO 175 KW	NO	4	1135	4542
33d	DC MOTORS	NO	2	757	1514
34	REMOVAL & REPLACEMENT OF COOLING FAN &/ FAN COVER OF LT MOTORS				
34a	UP TO 11 KW	NO	10	189	1892
34b	11.1 KW TO 75 KW	NO	6	378	2271
34c	75.1 KW TO 175 KW	NO	6	757	4542



35	REMOVAL &/ REPLACEMENT OF END SHIELD OF LT MOTORS				
35a	UP TO 11 KW	NO	16	378	6056
35b	11.1 KW TO 75 KW	NO	4	378	1514
35c	75.1 KW TO 175 KW	NO	2	757	1514
35d	DC MOTORS	NO	2	378	757
36	REMOVING & RECONNECTING EARTHING OF LT MOTORS				
36a	UP TO 11 KW	NO	40	94	3750
36b	11.1 KW TO 75 KW	NO	20	94	1875
36c	75.1 KW TO 175 KW	NO	10	94	938
36d	DC MOTORS	NO	4	75	300
37	RE-ERECTION OF MOTOR RATING OF LT MOTORS				
37a	UP TO 11 KW	NO	40	276	11027
37b	11.1 KW TO 75 KW	NO	10	314	3135
37c	75.1 KW TO 175 KW	NO	6	546	3278
37d	DC MOTORS	NO	2	189	378
38	GLANDING AND TERMINATION OF POWER CABLE AT MOTOR / MODULE END OF LT MOTORS				
38a	UP TO 11 KW	NO	28	189	5299
38b	11.1 KW TO 75 KW	NO	12	378	4542
38c	75.1 KW TO 175 KW	NO	6	462	2775
38d	DC MOTORS	NO	2	189	378
39	VARNISHING & DRYING OUT OF MOTOR FOR IMPROVING IR VALUE OF LT MOTORS (INCL. OF DISMENTLING & REASSEMBLING OF MOTOR)				
39a	UP TO 11 KW	NO	10	757	7570
39b	11.1 KW TO 75 KW	NO	4	1325	5299
39c	75.1 KW TO 175 KW	NO	2	1514	3028
39d	DC MOTORS	NO	2	1098	2195
40	RUNNING OF MOTOR IN WORKSHOP/ MCC OR AT ITS LOCATION BY PASSING CERTAIN INTERLOCKS AS FELT NECESSARY BY OPERATION DEPARTMENT OF LT MOTORS				
40a	UP TO 11 KW	NO	8	97	778
40b	11.1 KW TO 75 KW	NO	4	97	389
40c	75.1 KW TO 175 KW	NO	4	97	389
40d	DC MOTORS	NO	2	97	194
41	REPLACEMENT OF MOTOR TERMINAL BLOCK / TERMINAL BOX FOR LT MOTORS OF ANY RATING	NO	12	378	4542
42	REMOVAL / RECONNECTION OF SPACE HEATING CABLE OF LT MOTORS	NO	12	94	1125



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43	REPLACEMENT OF FAULTY TACHO- GENERATOR WITH/WITHOUT COUPLING TO MOTOR SHAFT AND RECONNECTING THE CABLES OF LT MOTORS	NO	10	189	1892
44	CHECKING / CLEANING OF DIFFERENT PARTS OF DC MOTORS LIKE BRUSH HOLDERS, ROCKER ARM ASSEMBLY, COMMUTATOR ETC.	NO	10	516	5156
45	DISCONNECTION OF POWER CABLE FROM MOTOR END, AND MECHANICALLY LIFTING THE LEVER TO BYPASS THE BRAKE LIMIT SWITCH OF THRUSTER BRAKES	NO	20	189	3785
46	SHIFTING OF THRUSTER BRAKES FROM LOCATION TO WORKSHOP / VICE VERSA.	NO	50	151	7570
47	OVERHAULING OF THRUSTER BRAKES COMPLETE AND REPLACEMENT OF DAMAGED SPARES INCLUDING BEARINGS, OIL SEALS, TERMINAL PLATE ETC.	NO	50	382	19097
48	RE-ERECTION OF THRUSTER BRAKES	NO	50	191	9548
49	POWER CABLE GLANDING, TERMINATION AND REMOVING THE BYPASS ARRANGEMENT OF BRAKE LIMIT SWITCH TO TAKE IT INTO SERVICE.	NO	20	229	4583
50	ARRESTING OF OIL LEAKAGE IN THRUSTER BRAKES BY APPLYING M- SEAL OR ANY OTHER SEALANT & OIL TOP -UP AFTER ARRESTING OF OIL LEAKAGE	NO	8	189	1514
51	SHIFTING OF OIL DRUMS TO / FROM LOCATION / WORKSHOP	NO	20	378	7570
52	TROUBLE SHOOTING & NEEDFUL RECTIFICATION FOR CONTROL WIRING DEFECTS, REPLACEMENT OF CONTROL FUSE, INDICATION LAMPS, RE-300 RELAYS ETC. IN 6.6KV HT PANEL FOR MOTOR / TRANSFORMER / INCOMER / BUS COUPLER / PT FEEDERS	NO	40	289	11551
53	TROUBLE SHOOTING & NEEDFUL RECTIFICATION FOR CONTROL WIRING (INTERLOCKS / INTER PANEL / PLC) & REPLACEMENT OF FAULTY COMPONENTS LIKE HT FUSES/ AUXILIARY CONTACTORS/ RELAYS/ TIMERS ETC. IN 6.6KV HT MOTOR / TRANSFORMER / INCOMER / BUS COUPLER / PT FEEDERS	NO	24	484	11605
54	CURRENT MEASUREMENT OF	NO	60	95	5729
55	EQUIPMENT MOTOR GREASING	NO	20	79	1571
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56	CHECKING / REPAIRING OF HT / LT BREAKER FOR PROPER OPERATION	NO	36	466	16789
57	MODULE ALIGNMENT / SLIDING CONTACTS CHECKING FOR FEEDBACKS / INPUTS	NO	40	95	3819
58	MAKING "ON" OF MCB/ ELCB /RCCB/ MPCB/ SFU/ ISOLATOR/ MODULE FOUND OFF WHILE CHECKING FOR NOT WORKING OF EQUIPMENTS	NO	60	97	5833
59	TROUBLE SHOOTING & NEEDFUL RECTIFICATION FOR CONTROL / POWER WIRING DEFECTS & REPLACEMENT OF FAULTY COMPONENTS IN 415 V LT MCC FOR MOTOR FEEDERS (INCL. OF PLC COMMUNICATION, MOTOR IR / WR CHECKING)	NO	40	325	13015
60	TROUBLE SHOOTING & NEEDFUL RECTIFICATION FOR CONTROL WIRING & INTERLOCKING CABLES FOR UPSTREAM & DOWNSTREAM BREAKERS/ INTER PANEL WIRING DEFECTS AND REPLACEMENT OF FAULTY COMPONENTS IN 415 V LT MCC FOR INCOMER & BUS COUPLER FEEDERS	NO	40	462	18498
61	TROUBLE SHOOTING & NEEDFUL RECTIFICATION FOR CONTROL WIRING DEFECTS AND REPLACEMENT OF FAULTY COMPONENTS IN 415 V LT MCC FOR PT / CONTROL TRANSFORMER / SPACE HEATING / WINDING HEATING /ALARM BUS / SWITCH FUSE UNIT MODULE	NO	52	325	16920
62	REMOVAL OF DAMAGED (BECAUSE OF FLASHOVER) SET OF VERTICAL CONNECTORS (R, Y & B PHASES).	NO	4	1664	6657
63	REPLACEMENT OF NEW SET OF VERTICAL CONNECTORS (R, Y & B PHASES).	NO	4	1951	7802
64	REMOVAL OF FAULTY ELECTRICAL ACTUATOR BY DISCONNECTING ACTUATING LEVERS, DISCONNECTION OF POWER & CONTROL WIRING	NO	12	555	6656
65	SHIFTING OF ACTUATOR TO LOCATION FROM WORKSHOP / VICE VERSA	NO	12	551	6615
66	ERECTION OF ACTUATOR & CABLE CONNECTION (POWER & CONTROL) AND FIXING OF ACTUATING LEVER.	NO	12	555	6656
67	SETTING OF LIMIT & TORQUE SWITCHES IN THE ACTUATOR.	NO	16	156	2489



68	TRIAL OF ACTUATOR FOR CHECKING OF SETTINGS AND FEEDBACK SIGNALS TO PLC.	NO	12	97	1167
69	SERVICING OF ACTUATOR INCLUDING REPLACEMENT OF WORN OUT COMPONENTS AND TRIAL RUN IN WORKSHOP/ MCC ROOM.	NO	12	382	4583
70	FIXING OF 63 AMP INDUSTRIAL TYPE PLUG RECEPTACLE AND GLANDING - TERMINATION OF POWER CABLE	NO	12	382	4583
71	REPLACEMENT OF BLOWN POWER FUSE IN 63 AMP INDUSTRIAL TYPE PLUG RECEPTACLE	NO	12	153	1833
72	FIXING OF 16 AMP INDUSTRIAL TYPE PLUG RECEPTACLE AND TERMINATION OF CABLE	NO	10	382	3819
73	1 PHASE RECEPTACLES REPLACEMENT OF FAULTY PARTS	NO	26	191	4965
74	3 PHASE RECEPTACLES REPLACEMENT OF FAULTY PARTS	NO	20	191	3819
75	SHIFTING OF 1 PHASE FROM WAREHOUSE TO CONTAINER/LOCATION AND VISE VERSA	NO	12	151	1817
76	SHIFTING OF 3 PHASE RECEPTACLES FROM WAREHOUSE TO CONTAINER/LOCATION AND VISE VERSA	NO	10	151	1514
77	TROUBLE SHOOTING OF LCS AND REPLACEMENT OF LOCAL/ REMOTE SELECTOR SWITCH/ CONTACT ELEMENTS/ ACTUATING MECHANISM.	NO	20	191	3819
78	REPLACEMENT OF MUSHROOM HEAD (LOCKABLE/ ROTATE TO FREE)	NO	20	153	3055
79	CLEANING/ SETTING/ REPLACEMENT OF SWITCH AND REPLACEMENT OF FIELD/ LIMIT SWITCHES.	NO	40	153	6111
80	LOADING & UNLOADING OF CABLE. (PER KG WEIGHT- WEIGHT TO DERIVED FROM STANDARD CABLE CATALOGUE) IN KG	KG	18000	8	136254
81a	LAYING OF POWER CABLE INCLUDING SHIFTING FROM STORES, DRESSING & CLAMPING. (PER KG WEIGHT- WEIGHT TO DERIVED FROM STANDARD CABLE CATALOGUE) IN KG	KG	14900	16	236854
81b	LAYING OF CONTROL CABLE INCLUDING SHIFTING FROM STORES, DRESSING & CLAMPING. (PER KG WEIGHT- WEIGHT TO DERIVED FROM STANDARD CABLE CATALOGUE) IN KG	KG	12000	19	226676
82	REMOVING AND SHIFTING OF HT/LT CABLES OF ALL SIZES (PER KG WEIGHT-	KG	4000	8	30279



	WEIGHT TO DERIVED FROM STANDARD CABLE CATALOGUE) IN KG				
83	ERECTION OF CABLE TRAY WITH NECESSARY SUPPORTS	MTR	400	151	60557
84	DRESSING / CLAMPING OF CABLE (PER METER LENGTH)	MTR	400	15	6056
85	SADDLING OF LIGHTING WIRES	MTR	400	15	6056
86	NEW GLANDING & TERMINATION OF LT POWER CABLE				
86a	SIZE: -FROM 3CX2.5 SQ MM TO 3CX16 SQ MM	NO	80	378	30279
86b	SIZE: -FROM 3CX25 SQ MM TO 3CX95 SQ.MM	NO	40	420	16805
86c	SIZE: - FROM 3CX120 SQ MM TO 3CX300 SQ.MM	NO	24	600	14390
87	GLANDING & TERMINATION OF CONTROL CABLES				
87a	UP TO 12 CORES	NO	16	308	4933
87b	14 TO 32 CORES	NO	16	385	6166
88	ASSISTING FOR END TERMINATION / STRAIGHT THROUGH TERMINATION OF HT POWER CABLE (ALL SIZES)	NO	16	471	7531
89	STRAIGHT THROUGH TERMINATION OF LT POWER CABLE (ALL SIZES)				
89a	SIZE: -FROM 3CX2.5 SQ MM TO 3CX16 SQ MM	NO	14	385	5395
89b	SIZE: -FROM 3CX25 SQ MM TO 3CX95 SQ.MM	NO	14	561	7849
89c	SIZE: -FROM 3CX120 SQ MM TO 3CX300 SQ.MM	NO	10	753	7533
90	UNARMOURED / TEMPERORY LT POWER CABLE JOINT (ALL SIZES)	NO	10	561	5606
91	UNARMOURED / TEMPERORY LT CONTROL CABLE JOINT (ALL SIZES)	NO	10	472	4718
92	WRAP AROUND SLEEVING OF HT & LT CABLES (LENGTH IN MTR.)	NO	10	306	3055
93	DRAINING OF OIL (PER LTR.) OF TRANSFORMER/IN LINE MAGNETIC SEPARATOR (ILMS)	LTR	800	6	4845
94	ARRESTING OF OIL LEAKAGE FROM RADIATOR/ BUSHINGS/ DRAIN VALVES OF TRANSFORMER/IN LINE MAGNETIC SEPARATOR (ILMS)	NO	8	757	6056
95	OIL MAKE UP IN TRANSFORMER/ ILMS (PER LTR.)	LTR	800	6	4845
96	CLEANING/REPLACEMENT OF NO/NC CONTACTS IN PENDANT SWITCH OF HOIST	NO	24	189	4542



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97	TROUBLE SHOOTING & RECTIFICATION IN HOIST CONTROL PANEL & CLEANING OF PARTS	NO	14	306	4278
98	TROUBLE SHOOTING & RECTIFICATION IN HOIST CONTROL PANEL AND REPLACEMENTS OF FAULTY COMPONENTS AS REQUIRED	NO	24	541	12994
99	REMOVAL & REPLACEMENT OF FAULTY COMPONENT LIKE- BRAKE SHOE, FRICTION DISC, LINER ETC & BRAKE COIL SETTING FOR HOIST	NO	10	648	6484
100	REMOVAL & RE-ERECTION OF FESTOONER TROLLEY ON THE MONORAIL FOR FLEXIBLE CABLES OF HOIST.	NO	20	191	3819
101	CHECKING OF HEALTHINESS OF HEATER. MEGGERING AND RESISTANCE MEASUREMENT.	NO	4	78	311
102	RELUGGING/ GLANDING AND TERMINATION OF CABLE AT HEATER TB.	NO	4	191	764
103	REMOVAL & REPLACEMENT OF FAULTY / DAMAGED HEATER COIL	NO	6	191	1146
104	REMOVAL OF 2V BATTERY FROM THE BATTERY BANK OF 220V NOTICED ANY LEAKAGE/ LOW GRAVITY/ VOLTAGE.	NO	12	382	4583
105	BOOST CHARGING OF THE SINGLE CELL OF 2V AND IMPROVING THE SPECIFIC GRAVITY AND VOLTAGE.	NO	2	757	1514
106	REPLACEMENT WITH NEW CELL AFTER CHANGING THE CONTAINER OBSERVED WITH LEAKAGE	NO	2	378	757
107	REPLACEMENT OF 2V BATTERY TO THE BATTERY BANK OF 220V AFTER IMPROVING THE SPECIFIC GRAVITY AND VOLTAGE.	NO	2	303	606
108	REPLACEMENT OF COMPLETE BATTERY STAND INCLUSIVE OF DISMANTLING OF BATTERY SET & RE-ERECTION.	NO	1	7611	7611
109	TROUBLE SHOOTING AND NEEDFUL RECTIFICATION FOR CONTROL WIRING DEFECTS AND REPLACEMENT OF FAULTY COMPONENT IN FLOAT & BOOST CHARGER	NO	20	540	10791
110	SETTING OF PENDULUM SWITCH FOR SLACKNESS PROTECTION OF CCRD/ PCRD CABLE REELING/ UNREELING MECHANISM OF STACKER MACHINE	NO	10	764	7639
111	SETTING OF PENDULUM SWITCH FOR 10-DEGREE/ 20 DEGREE/ 30-DEGREE/ OVER-TENSION PROTECTION OF CCRD/ PCRD CABLE REELING/ UNREELING MECHANISM OF STACKER MACHINE	NO	6	191	1146



112	SETTING OF PENDULUM SWITCH FOR 3RD LAST WINDING PROTECTION OF CCRD/ PCRD CABLE REELING/ UNREELING MECHANISM OF STACKER MACHINE	NO	4	191	764
113	CHECKING OF INPUTS FROM THE FIELD BACKUP EMERGENCY SWITCHES TO INCOMER BREAKER PANEL AND BYPASSING ANY ONE IN CONSULTATION WITH OPERATION DEPT. OF STACKER MACHINE	NO	4	191	764
114	NORMALISATION OF FAULTY FIELD BACKUP EMERGENCY SWITCHES AND TAKING IT INTO SERVICE OF STACKER MACHINE	NO	4	97	389
115	REMOVAL & RE-ERECTION OF NEW FESTOONER TROLLEY IN UNDER CARRIAGE OF STACKER RECLAIMER/ BUCKET WHEEL RECLAIMER OF STACKER MACHINE	NO	1	757	757
116	RE-ERECTION / RECTIFICATION OF FESTOONER TROLLEY THAT HAS SLIPPED FROM THE RAIL FROM UNDER CARRIAGE OF STACKER RECLAIMER/ BUCKET WHEEL RECLAIMER.	NO	1	378	378
117	CHECKING COMPATIBILITY OF SPARES (LIKE ELECTRONIC CARDS, TACHO-GENERATOR /HT & LT MOTORS/ HT& LT PANELS ETC.) RECEIVED WITH THAT INSTALLED AT SITE (PER ITEM)	NO	20	156	3111
118	CHECKING HEALTHINESS OF POWER CABLE BY MEGGERING.	NO	34	76	2597
119	CHECKING HEALTHINESS OF CONTROL CABLE BY MEGGERING.	NO	34	95	3246
120	MEGGER OF MOTOR OF ALL RATINGS (HT & LT)	NO	60	97	5833
121	CHECKING & RESTORATION OF PLATEN HEATERS FOR HEALTHINESS OF BELT VULCANIZING MACHINE	NO	10	191	1910
122	CHECKING & RECTIFICATION OF CONTROL PANELS FOR HEATERS OF BELT VULCANIZING MACHINE	NO	16	191	3055
123	INTERCONNECTION OF CABLES BETWEEN CONTROL PANEL-HEATERS (POWER & CONTROL) & GRINDER M/C AND MANNING TILL COMPLETION OF BELT JOINTING WORK AS REQUIRED BY MECHANICAL MAINTENANCE.	NO	24	189	4542
124	CHECKING & RESTORATION OF WELDING MACHINE FOR HEALTHINESS.	NO	4	78	311
125	INTERCONNECTION OF CABLES BETWEEN WELDING MACHINES TO WELDING RECEPTACLE.	NO	2400	114	272508



126	REMOVAL OF TEMP CONNECTION GIVEN TO WELDING M/C, VULCANIZING M/C ETC.	NO	500	76	38193
127	CHECKING OF AREA LIGHTING CIRCUITS FOR HEALTHINESS (PER PHASE)	NO	300	189	56772
128	REPLACEMENT OF SPARES e.g. LAMP/ BALLAST/ IGNITOR/ CHOKE/ STARTER/ HOLDER/ STARTER SEAT/ CONTROL GEARBOX COMPLETE/ CAPACITOR/ TERMINALS ETC. IN LIGHTING FIXTURES ALL TYPES (UP TO 10 METER HEIGHT)	NO	1200	151	181672
129	REPLACEMENT OF SPARES e.g. LAMP/ BALLAST/ IGNITOR/ CHOKE/ STARTER/ HOLDER/ STARTER SEAT/ CONTROL GEARBOX COMPLETE/ CAPACITOR/ TERMINALS ETC. IN LIGHTING FIXTURES ALL TYPES (ABOVE 10 METER HEIGHT)	NO	400	189	75697
130	TROUBLE SHOOTING & RECTIFICATION OF SINGLE-PHASE LIGHTING CIRCUIT FOR ANY SHORT CIRCUIT / OPEN CIRCUIT/ EARTHED CIRCUITS	NO	600	227	136254
131	LIGHTING TIMER SETTING, MCB/ELCB/RCCB ETC MAKING ON	NO	160	76	12111
132	REMOVAL OF BURNT OUT LIGHTING WIRES FROM METALLIC CONDUIT (PER MTR.)	MTR	100	8	750
133	PULLING OF FRESH LIGHTING WIRE FOR NORMALIZING THE CIRCUIT (PER MTR.)	MTR	300	15	4542
134	REMOVAL OF GI LIGHTING CONDUIT 20MM/25MM DIA INCLUDING LIGHTING WIRE PER METER	MTR	200	15	3028
135	ERECTION OF GI LIGHTING CONDUIT 20/25MM DIA ALONG WITH EARTHING WIRE 8 SWG PER METER	MTR	100	45	4542
136	ERECTION OF GI CIRCULAR JB (3WAY/4WAY)/GI BENDS OF 20MM/25MM SIZE	NO	24	38	917
137	CLEANING OF MCB/RCCB/ELCB BY SUITABLE CLEANSER	NO	28	76	2120
138	REPLACEMENT / MOUNTING OF DOOR FIXING ARRANGEMENTS / HINGES / PANEL LOCKS, PANEL EARTHING, ETC., MISC. JOBS	NO	100	189	18924
139	CLEANING OF TERMINAL BLOCKS	NO	6	76	458
140	REPLACEMENT OF TERMINAL BLOCKS	NO	10	95	955
141	INSTALLATION / REPLACEMENT OF MCB	NO	20	117	2333
142	INSTALLATION / REPLACEMENT OF RCCB/ ELCB	NO	50	153	7639
143	REPLACEMENT OF ISOLATOR/MODULE ON-OFF, SFU HANDLE / TNC / SELECTOR SWITCH ETC. HANDLE	NO	40	191	7639



B2.	TOTAL ESTIMATE VALUE FOR LUNS/ANS/LIME AREA DEFECT FOR TWO							
160	ARMATURE OR BEARINGS REPLACEMENT OF HOOTER	NO	10	341	3406			
159	CARBON BRUSH REPLACEMENT OF HOOTER	NO	10	189	1892			
158	HOOTER REMOVAL & REPLACEMENT	NO	20	95	1910			
157	IDENTIFICATION & REPLACEMENT OF FAULTY DISC INSULATOR BY HEALTHY ONE OF 6.6 KV OVERHEAD LINE	NO	20	378	7570			
156	IDENTIFICATION & REPLACEMENT OF FAULTY PIN INSULATOR BY HEALTHY ONE OF 6.6 KV OVERHEAD LINE	NO	2	1102	2205			
155	REPLACEMENT OF 400A, A.B. SWITCH OF 6.6 KV OVERHEAD LINE	NO	2	1102	2205			
154	REPLACEMENT OF 400A, A.B. SWITCH OF 6.6 KV OVERHEAD LINE	NO	2	2278	4556			
153	INSTALLATION OF TEMPORARY FIXTURE FOR AREA ILLUMINATION (ALL TYPES) ALONG WITH REQUIRED FLEXIBLE CABLE AND ITS CONNECTION TO THE NEAREST POWER POINT	NO	50	189	9462			
152	INSTALLATION OF LIGHTING FIXTURES ALL TYPES ABOVE AN ELEVATION OF 10 MTR. FROM THE WORKING FLOOR	NO	50	303	15139			
151	INSTALLATION OF LIGHTING FIXTURES ALL TYPES UP TO AN ELEVATION OF 10 MTR. FROM THE WORKING FLOOR	NO	160	189	30279			
150	LOOPING OF LIGHTING CABLE FROM FIXTURE TO FIXTURE & TERMINATION FOR CONDUT WIRING	NO	80	189	15139			
149	PREPARING / MAKING READY OF LIGHTING FIXTURES OF ALL TYPES FOR INSTALLATION	NO	80	121	9689			
148	REMOVAL OF LIGHTING FIXTURES OF ALL TYPES, CEILING FAN ETC. FROM LOCATIONS & SHIFTING TO DEFINED PLACE	NO	100	151	15139			
147	TROUBLESHOOTING & RECTIFICATION FOR 1-PH SWITCH / BOARDS / POWER STRIP ETC (5-16 AMP)	NO	30	151	4542			
146	TROUBLESHOOTING & REPLACEMENT OF FAULTY COMPONENTS IN LIGHTING PANEL	NO	30	303	9084			
145	REPLACEMENT OF TIMER IN LIGHTING CIRCUIT	NO	40	151	6056			
144	CLEANING OF ENTIRE LIGHTING PANEL, DRYING OUT AND RESTORATION OF ALL THE OUTGOING CIRCUITS	NO	2	771	1542			



В3.	PRICE SCHEDULE SHIFT MAINTENANCE PACKAGE-B (LIGNITE, LIMESTONE & ASH HANDLING SYSTEMS AND EXTERNAL LIGNITE HANDLING SYSTEM AT MANGROL MINES END)						
SR. NO.	ITEM DESCRIPTION	UOM	QTY FOR TWO YEAR	UNIT SOR RATE WITHOUT GST IN RS.	TOTAL SOR PRICE W/O GST FOR TWO YEAR (W/O ESCALATION) IN Rs.		
1	ENGINEER PER SHIFT (TOTAL B & C SHIFT PER DAY)	SHIFT	1460	837	1222020		
2	SKILLED TECHNICIAN PER SHIFT (TOTAL B & C SHIFT PER DAY)	SHIFT	1460	837	1222020		
В3.	TOTAL ESTIMATE VALUE FOR LLHS/A TWO YEAR	2444040					

B4.	PRICE SCHEDULE UNFORSEEN JOBS PACKAGE-B (LIGNITE, LIMESTONE & ASH HANDLING SYSTEMS AND EXTERNAL LIGNITE HANDLING SYSTEM AT MANGROL MINES END)								
Sr. No.	ITEM DESCRIPTION	UOM	QUANTITY FOR TWO YEAR	UNIT SOR RATE WITHOUT GST IN Rs.	TOTAL SOR PRICE W/O GST FOR TWO YEARS IN Rs.				
1	ENGINEER FOR UNFORESEEN JOB FOR NORMAL HOURS	HOUR	160	48	7652				
2	SKILLED TECHNICIAN FOR UNFORESEEN JOB FOR NORMAL HOURS	HOUR	240	48	11478				
3	SEMI-SKILLED WORKER FOR UNFORESEEN JOB FOR NORMAL HOURS	HOUR	1300	47	60726				
4	HELPER FOR UNFORESEEN JOB FOR NORMAL HOURS	HOUR	1300	46	59280				
5	ENGINEER FOR UNFORESEEN JOB FOR OT HOURS	HOUR	80	95	7563				
6	SKILLED TECHNICIAN FOR UNFORESEEN JOB FOR OT HOURS	HOUR	200	95	18907				
7	SEMI-SKILLED WORKER FOR UNFORESEEN JOB FOR OT HOURS	HOUR	272	92	25109				
8	HELPER FOR UNFORESEEN JOB FOR OT HOURS	HOUR	272	90	24504				
B4.	TOTAL ESTIMATE VALUE FOR LLHS/A TWO YEAR		NFORESEEN	JOB FOR	215220				



#### C1: PRICE SCHEDULE FOR MAIN PLANT LIGHTING SYSTEM COLONY & SLPP-1 (PACKAGE-C) (EXCLUDING GST) TOTAL UNIT SOR **QUAN** SOR PRICE **TITY** UO **RATE** Sr. W/O GST ITEM DESCRIPTION **FOR** No. M **WITHOU FOR TWO** T GST IN **TWO YEAR YEARS** Rs. IN Rs. ATTENDING DEFECTS OF LIGHTING FIXTURES INCLUDING CLEANING, WIRE TIGHTNESS, <u>1</u> COMPONENT CHECKING INCLUDING CG BOX. JB'S RECTIFICATIONS/ REPLACEMENT OF COMPONENT IF REQUIRED ETC. ALL TYPE OF FLUORESCENT/LED TUBE LIGHT 1.1 NOS 1750 169 295750 FITTINGS. EXCL FALSE CEILING AREAS FLUORESCENT /LED LIGHT FITTINGS IN ALL 1.2 NOS 150 169 25350 FALSE CEILING AREA. ALL TYPE OF INCANDESCENT/CFL/LED LIGHT 1.3 NOS 500 85 42500 **FITTINGS** ALL HPSV/HPMV/LED LIGHT FITTINGS AT HEIGHT 1.4 NOS 1600 340 544000 UP TO 6.0M. ALL HPSV/HPMV/LED HIGH BAY/MEDIUM BAY 1.5 NOS 200 343 68600 LIGHT FITTINGS AT HEIGHT 6.00 TO 12.00MTR. LIGHT FITTING MOUNTED IN THE TG HALL 1.6 NOS 25 256 6400 AREA LIGHT FITTINGS (HPMV/HPSV/SON/ 1.7 HALOGEN) MOUNTED ON FLOOD LIGHT TOWER, NOS 180 345 62100 WATCH TOWERS, ROOF TOPS. 1.8 POST TOP LANTERN FITTING NOS 150 169 25350 1.9 ALL TYPE STREET LIGHTS FITTINGS. NOS 200 517 103400 AVIATION LIGHT FITTING (TWIN) ON 120 MTR. 1.10 NOS 6 688 4128 HIGH CHIMNEY. MAINTENANCE OF FOLLOWING ITEMS INCLUDING CLEANING, WIRE TIGHTNESS, **COMPONENT CHECKING, RECTIFICATIONS/** <u>2</u> REPLACEMENT OF COMPONENT IF REQUIRED 5A/15A/32A DECORATIVE SOCKET/RECEPTACLE 2.1 NOS 1500 135 202500 WITH SWITCH & FAN REGULATOR, BOX 10A/20A/32 A, 230V/24V METAL CLAD INDUSTRIAL/FLAME PROOF TYPE 2.2 NOS 150 135 20250 RECEPTACLE/POWER PLUG/ SWITCH//MCB/ELCB/TIMERS/SPIKE GUARD 2.3 32A,415V INDUSTRIAL TYPE RECEPTACLE NOS 10 172 1720 63A,415V INDUSTRIAL TYPE RECEPTACLE 2.4 NOS 25 172 4300 COMPLETE DISTRIBUTION BOARD(WOODEN/METALLIC) OF MAX. SIZE 2.5 NOS 100 167 16700 1X1FEET INCLUDING INTERNAL WIRING

TERMINATION.



2.6	WATER HEATER / GEYSER	NOS	100	336	33600
2.7	ALL TYPE OF CEILING FAN	NOS	200	336	67200
2.8	ALL TYPE OF WALL MOUNTED / PEDESTAL FAN	NOS	200	167	3340
2.9	EXHAUST FAN LIGHT DUTY (1 PH)	NOS	20	167	3340
2.10	PM OF 1 PH AC LIGHTING PANELS- 9CKT	NOS	150	167	25050
2.11	PM OF 1 PH AC LIGHTING PANELS- 6CKT/3CKT (105+6)	NOS	160	167	26720
2.12	PM OF 3 PH LIGHTING PANEL	NOS	110	336	36960
2.13	PM OF DC LIGHTING PANELS- 3 CKT /6CKT	NOS	30	336	10080
	PM OF 25KVA DRY TYPE LIGHTING				
2.14	TRANSFORMER WITH DB	NOS	20	688	13760
2.15	PM OF 100 /50KVA DRY TYPE LIGHTING TRANSFORMER (12+13) ALONG WITH DB	NOS	120	688	82560
2.16	PM OF 24V AC, 5 KVA SUPPLY DISTRIBUTION BOARD	NOS	18	345	6210
2.17	PM OF JB /DB/ CHANGE OVER SWITCH UP TO 300X 300 SIZE	NOS	80	167	13360
2.18	PM OF JB/ DB/CHANGE OVER SWITCH MORE THAN 300X 300 SIZE	NOS	60	167	10020
2.19	PM OF MCB DISTRIBUTION BOARD HAVING 14NO TP MCB IN COLONY	NOS	180	330	59400
2.20	PM OF DB HAVING 4NO ENERGY METERS WITH MCB IN COLONY	NOS	150	164	24600
2.21	PM OF LT MOTORS UP TO 15 KW	NOS	7	345	2415
2.22	PM OF HT PANEL WITH BREAKER (ONE VERTICAL)	NOS	16	688	11008
2.23	PM OF LT PANEL (ONE VERTICAL WITH ALL MODULES) / WELDING SUPPLY DB/ 9 NO ENERGY METER PANEL	NOS	140	688	96320
2.24	PM OF 100 TO 500 KVA OIL FILLED TRANSFORMER	NOS	10	2065	20650
2.25	CEILING FAN OILING / GREASING OF ANY TYPE AND MAKE INCLUDING EXHAUST FAN / PEDESTAL FAN ETC.	NOS	300	167	50100
2.26	CAPACITOR REPLACEMENT FOR CEILING FAN, EXHAUST FAN, PEDESTAL FAN ETC.	NOS	800	167	133600
3	REMOVAL /& ERECTION OF FOLLOWING TYPE OF LIGHTING FITTINGS INCLUDING ERECTION/ REMOVAL OF ALL COMPONENT / ACCESSORIES.				
3.1	FLUORESCENT/LED LIGHT FITTINGS (1X40W, 2X40W, 1X20W & 4X 20W ETC.) EXCLUDING FALSE CEILING AREA INSTALLED AT NORMAL (3 TO 5 MTR) HEIGHT.	NOS	200	167	33400
3.2	FLUORESCENT/LED LIGHT FITTINGS IN ALL FALSE CEILING AREA.	NOS	40	167	6680
3.3	ALL TYPE OF INCANDESCENT/CFL/LED LIGHT FITTINGS 230V AC/DC UP TO 200W LAMP IN ALL AREA.	NOS	100	167	16700
3.4	ALL HPSV/HPMV/LED LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC. AT NORMAL HEIGHT UP TO 6.0MTR.	NOS	200	336	67200



	A L L L DO V/L DA D //L ED L L O L DA V/L ED L L DA V/L				1
2.5	ALL HPSV/HPMV/LED HIGH BAY/MEDIUM BAY	NOC	<b>5</b> 0	540	05000
3.5	LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT 6.00 TO 12.00MTR.	NOS	50	512	25600
3.6	LIGHT FITTING MOUNTED IN THE TG HALL	NOS	5	507	2535
3.0	AREA LIGHT FITTINGS (HPMV/HPSV/SON/	1103	5	507	2555
3.7	HALOGEN/LED) MOUNTED ON FLOOD LIGHT	NOS	40	512	20480
3.7	TOWER, WATCH TOWERS, ROOF TOPS.	1100	40	312	20400
3.8	POST TOP LANTERN FITTING	NOS	60	336	20160
3.9	ALL TYPE STREET LIGHTS FITTINGS.	NOS	100	676	67600
	AVIATION LIGHT FITTING (TWIN) ON 120 MTR.				
3.10	HIGH CHIMNEY.	NOS	6	688	4128
1	REMOVAL /& ERECTION OF FOLLOWING ITEMS				
4	INCLUDING ALL ACCESSORIES.				
	5A/15A/32A DECORATIVE SOCKET/RECEPTACLE				
4.1	WITH SWITCH & BOX, FAN	NOS	350	167	58450
	REGULATOR/MCB/ELCB ETC 10A/20A/32 A, 230V/24V METAL CLAD				
	INDUSTRIAL/FLAME PROOF TYPE				
4.2	RECEPTACLE/POWER PLUG/	NOS	250	167	41750
	SWITCH//MCB/ELCB/TIMERS/SPIKE GUARD				
4.3	32A,415V INDUSTRIAL TYPE RECEPTACLE	NOS	1	336	336
4.4	63A,415V INDUSTRIAL TYPE RECEPTACLE	NOS	2	336	672
	COMPLETE DISTRIBUTION				_
4.5	BOARD(WOODEN/METALLIC) OF MAX. SIZE	NOC	20	054	7500
4.5	1X1FEET INCLUDING INTERNAL WIRING	NOS	30	251	7530
	TERMINATION.				
4.6	3 PH SWITCH BOX / CHANGEOVER BOX UP TO	NOS	30	688	20640
	250A				
4.7	ALL TYPE OF CEILING FAN	NOS	200	336	67200
4.8	ALL TYPE OF WALL MOUNTED / PEDASTAL FAN	NOS	30	167	5010
4.9	EXHAUST FAN LIGHT DUTY (1 PH)	NOS	15	167	2505
4.10	1 PH AC LIGHTING PANELS- 9CKT	NOS	2	345	690
	1 PH AC LIGHTING PANELS- 3CKT/6CKT	NOS	2	345	690
4.12	3 PH LIGHTING PANEL	NOS	3	688	2064
4.13	DC LIGHTING PANELS- 3CKT/6CKT	NOS	1	688	688
4.14	100KVA /50KVA LIGHTING DISTRIBUTION	NOS	1	1024	1024
4.14	BOARD(LDB) WITHOUT TRANSFORMER	NOS	1	1024	1024
4.15	100KVA / 50KVA DRY TYPE LIGHTING	NOS	1	1713	1713
4.15	TRANSFORMER	1103	ı	1713	1713
4.16	25KVA STREET LIGHTING DISTRIBUTION BOARD	NOS	1	1368	1368
4.10	(SLDB) WITHOUT TRANSFORMER	1103	ı	1300	1300
4.17	25KVA DRY TYPE LIGHTING TRANSFORMER	NOS	1	1368	1368
4.18	24V AC, 5 KVA SUPPLY DISTRIBUTION BOARD	NOS	1	1368	1368
4.19	JB / CHANGE OVER SWITCH UP TO 300X 300 SIZE	NOS	10	336	3360
4.20	JB/ CHANGE OVER SWITCH MORE THAN 300X 300	NOS	6	507	3042
4.20	SIZE		U	507	3042
4.21	3PH /1 PH ENERGY METERS	NOS	50	336	16800
4.22	LT PANEL / WELDING SUPPLY DISTRIBUTION	NOS	1	1713	1713
	PANEL				



<u>5</u>	ERECTION / DISMANTLING OF FOLLOWING				
	INCLUDING WELDING / CUTTING & PAINTING	MTD			
5.1	50X6 TO 75X8 MS ANGLE	MTR	20	340	6800
5.2	25X3 TO 40X6 MS ANGLE	MTR	25	340	8500
5.3	50MM TO 100MM CHANNEL (ISMC)	MTR	10	507	5070
5.4	ALL TYPE MS/ GI FLATS/PIPE/POLES	MTR	40	169	6760
<u>6</u>	MISCELLANEOUS WORKS				
6.1	FAULT FINDING/RECTIFICATION LIKE EARTH LEAKAGE/ FAULT IN LIGHTING CKTS ETC.	NOS	1000	345	345000
6.2	ERECTION OF 20MM /40MM DIA GI CONDUIT ON METAL STRUCTURE, WALL ETC. INCLUDING SPACERS, SADDLES, GI EARTHING WIRE, JBS, TEES ETC.	MTR	50	167	8350
6.3	DISMANTLING/REMOVAL OF CONDUIT DESCRIBED AT 6B ABOVE.	MTR	40	85	3400
6.4	ERECTION OF CASING CAPPING INCLUDING, TEES, ELBOWS ETC.	MTR	150	85	12750
6.5	DISMANTLING/REMOVAL OF CASING CAPPING INCL. TEES, ELBOWS, WIRES ETC.	MTR	100	42	4200
6.6	LAYING/PULLING OF PVC INSULATED COPPER WIRE (3 NOS 1.5&4.0 SQ MM) IN CONDUITS/CASING-CAPPING	MTR	800	58	46400
6.7	ERECTION OF RIGID PVC CONDUIT INCLUDING ALL REQUIRED ACCESSORIES.	MTR	200	85	17000
6.8	DISMANTLING/REMOVAL OF RIGID PVC CONDUIT INCLUDING ALL REQUIRED ACCESSORIES.	MTR	76	42	3192
6.9	REMOVAL OF PVC WIRES ALREADY LAID IN CONDUITS/CASING-CAPPING (3 NOS 1.5&4.0 SQ MM).	MTR ·	400	21	8400
6.1	PROVIDING TEMPORARY LIGHTING FIXTURES DURING SHUTDOWN / FESTIVALS ALONG WITH FLEXIBLE CABLE ETC	NOS	160	256	40960
6.11	POWER SUPPLY CONNECTION & REMOVAL FOR DIFFERENT WORK OF OTHER AGENCY LIKE FOR WELDING M/C, GRINDING M/C, LIGHTING FIXTURES ETC	NOS	250	172	43000
6.12	POLYTHENE COVERING FOR JB / CHANGEOVER SWITCH / LIGHTING PANELS ETC.	KG	150	85	12750
6.13	CLEANING OF LP / LDB / WDB / C/O SWITCH ETC. LOCATED IN VARIOUS AREAS BY AIR BLOWER ONLY	NOS	150	167	25050
6.14	LAYING OF POWER & CONTROL CABLE THROUGH WALLS, STRUCTURES, CABLE TRAYS/TRANCHES ETC INCLUDING DRESSING (WITHOUT DRESSING 80% OF UNIT RATE WILL BE APPLICABLE)	KG	4000	15.6	62400



6.15	EXCAVATION (750MM DEPTH, 300 MM WIDE), BRICK & SAND BEDDING, BACKFILLING FOR LAYING OF CABLES IN GROUND (SAND & BRICKS SHALL BE SUPPLIED BY GIPCL)	MTR	100	167	16700
6.16	GLANDING & TERMINATION OF POWER CABLE UP TO 16 SQMM SIZE (GLAND & LUGS SHALL BE SUPPLIED BY GIPCL) ONE END	NOS	150	172	25800
6.17	GLANDING & TERMINATION OF POWER CABLE FROM 25 TO 70 SQMM SIZE (GLAND & LUGS SHALL BE SUPPLIED BY GIPCL) ONE END	NOS	30	172	5160
6.18	GLANDING & TERMINATION OF POWER CABLE FROM 95 TO 185 SQMM SIZE (GLAND & LUGS SHALL BE SUPPLIED BY GIPCL) ONE END	NOS	24	345	8280
6.19	TIMER SETTING / GEYSER THERMOSTAT RE- SETTING/MCB OR ELCB RE-SETTING	NOS	200	85	17000
6.2	PER DAY CHARGES FOR DEPUTING ONE TECHNICIAN & ONE HELPER FOR ANY LIGHTING WORK AT BODHAN PUMP HOUSE	NOS	6	1396	8376
6.21	PER DAY CHARGES FOR DEPUTING ONE TECHNICIAN & TWO HELPER FOR ANY LIGHTING WORK AT BODHAN PUMP HOUSE	NOS	4	2075	8300
<u>7</u>	PROVIDING MAN POWER FOR UNIT SHUT DOWN (ROUND THE CLOCK), PRESENCE DURING FUNCTION & OTHER UNFORESEEN JOBS ETC.				
7.1	SUPERVISOR (DEE) - NORMAL 8 HOUR DUTY	DAY	2	715	1430
7.2	SR. TECHNICIAN - NORMAL 8 HOUR DUTY	DAY	60	715	42900
7.3	ITI TECHNICIAN - NORMAL 8 HOUR DUTY	DAY	80	697	55760
7.4	HELPER - NORMAL 8 HOUR DUTY	DAY	180	680	122400
7.5	SUPERVISOR (DEE) - OT AFTER NORMAL 8 HRS DUTY	HRS	5	95	475
7.6	SR. TECHNICIAN - OT AFTER NORMAL 8 HRS DUTY	HRS	60	95	5700
7.7	ITI TECHNICIAN - OT AFTER NORMAL 8 HRS DUTY	HRS	60	92	5520
7.8	HELPER - OT AFTER NORMAL 8 HRS DUTY	HRS	180	90	16200
C1	TOTAL SOR VALUE FOR SLPP1, SOLAR & COLONY LIGHTING FOR TWO YEARS				3657788



## C2 : PRICE SCHEDULE FOR MAIN PLANT LIGHTING SYSTEM SLPP-2 (PACKAGE-C) (EXCLUDING GST)

	(EXCLUDING GST)				
SR. NO.	ITEM DESCRIPTION		QUA NTIT Y FOR TWO YEAR	UNIT SOR RATE WITHOU T GST IN RS.	TOTAL SOR PRICE W/O GST FOR TWO YEARS IN RS.
1	ATTENDING DEFECTS OF LIGHTING FIXTURES INCLUDING CLEANING, WIRE TIGHTNESS, COMPONENT CHECKING INCLUDING CG BOX, JB'S RECTIFICATIONS/ REPLACEMENT OF COMPONENT IF REQUIRED ETC.				
1.1	ALL TYPE OF FLUORESCENT/LED TUBE LIGHT FITTINGS. EXCL FALSE CEILING AREAS	NOS	450	169	76050
1.2	FLUORESCENT /LED LIGHT FITTINGS IN ALL FALSE CEILING AREA.	NOS	100	169	16900
1.3	ALL TYPE OF INCANDESCENT/CFL/LED LIGHT FITTINGS	NOS	100	85	8500
1.4	ALL HPSV/HPMV/LED LIGHT FITTINGS AT HEIGHT UP TO 6.0M.	NOS	600	340	204000
1.5	ALL HPSV/HPMV/LED HIGH BAY/MEDIUM BAY LIGHT FITTINGS AT HEIGHT 6.00 TO 12.00MTR.	NOS	100	343	34300
1.6	LIGHT FITTING MOUNTED IN THE TG HALL	NOS	25	256	6400
1.7	AREA LIGHT FITTINGS (HPMV/HPSV/SON/ HALOGEN) MOUNTED ON FLOOD LIGHT TOWER, WATCH TOWERS, ROOF TOPS.	NOS	40	345	13800
1.8	POST TOP LANTERN FITTING	NOS	15	169	2535
1.9	ALL TYPE STREET LIGHTS FITTINGS.	NOS	25	517	12925
1.10	AVIATION LIGHT FITTING (TWIN) ON 120 MTR. HIGH CHIMNEY.	NOS	8	688	5504
<u>2</u>	MAINTENANCE OF FOLLOWING ITEMS INCLUDING CLEANING, WIRE TIGHTNESS, COMPONENT CHECKING, RECTIFICATIONS/ REPLACEMENT OF COMPONENT IF REQUIRED ETC.				
2.1	5A/15A/32A DECORATIVE SOCKET/RECEPTACLE WITH SWITCH & FAN REGULATOR, BOX, CAPACITOR	NOS	200	135	27000
2.2	10A/20A/32 A, 230V/24V METAL CLAD INDUSTRIAL/FLAME PROOF TYPE RECEPTACLE/POWER PLUG/ SWITCH//MCB/ELCB/TIMERS/SPIKE GUARD	NOS	150	135	20250
2.3	32A,415V INDUSTRIAL TYPE RECEPTACLE	NOS	2	172	344
2.4	63A,415V INDUSTRIAL TYPE RECEPTACLE	NOS	60	172	10320
2.5	COMPLETE DISTRIBUTION BOARD(WOODEN/METALLIC) OF MAX. SIZE 1X1FEET INCLUDING INTERNAL WIRING TERMINATION.	NOS	25	167	4175



2.7 ALL TYPE OF CEILING FAN  2.8 ALL TYPE OF CEILING FAN  2.9 EXHAUST FAN LIGHT DUTY (1 PH)  2.9 EXHAUST FAN LIGHT DUTY (1 PH)  2.10 PM OF 1 PH AC LIGHTING PANELS- 9CKT  2.11 PM OF 1 PH AC LIGHTING PANELS- 9CKT  2.12 PM OF 3 PH LIGHTING PANELS- 9CKT  2.13 PM OF 3 PH LIGHTING PANELS- 3 CKT /6CKT  2.14 PM OF 3 PH LIGHTING PANELS- 3 CKT /6CKT  2.15 PM OF 3 PH LIGHTING PANELS- 3 CKT /6CKT  2.16 PM OF 26KVA DRY TYPE LIGHTING TRANSFORMER  2.17 PM OF 1 PH AC LIGHTING PANELS- 3 CKT /6CKT  2.18 PM OF 3 PH LIGHTING PANELS- 3 CKT /6CKT  2.19 PM OF 3 PH LIGHTING PANELS- 3 CKT /6CKT  2.10 PM OF 26KVA DRY TYPE LIGHTING TRANSFORMER  2.11 PM OF 100/50KVA DRY TYPE LIGHTING TRANSFORMER  2.12 PM OF 3 PH LIGHTING TRANSFORMER  2.13 PM OF 100/50KVA DRY TYPE LIGHTING TRANSFORMER  2.14 WITH DB  2.15 PM OF 100/50KVA DRY TYPE LIGHTING TRANSFORMER  2.16 PM OF 24W AC, 5 KVA SUPPLY DISTRIBUTION BOARD  2.17 SIZE  2.18 PM OF JAY CHANGE OVER SWITCH UP TO 300X 300  3.0 167 5010  3.12 PM OF JB / CHANGE OVER SWITCH MORE THAN 300X  3.0 167 5010  3.12 PM OF LIGHTING DISTRIBUTION BOARD  4.12 PM OF LIGHTING DISTRIBUTION BOARD  4.12 PM OF LIGHTING DISTRIBUTION BOARD  5.10 PM OF LIGHTING DISTRIBUTION BOARD  6.10 CKT  7.11 PM OF LIGHTING DISTRIBUTION BOARD  7.12 PM OF LIGHTING DISTRIBUTION BOARD  7.13 PM OF LIGHTING DISTRIBUTION BOARD  7.14 PM OF LIGHTING DISTRIBUTION BOARD  7.15 PM OF LIGHTING DISTRIBUTION BOARD  7.16 PM OF LIGHTING DISTRIBUTION BOARD  7.17 PM OF LIGHTING DISTRIBUTION BOARD  7.18 PM OF LIGHTING DISTRIBUTION BOARD  7.19 PM OF LIGHTING DISTRIBUTION BOARD  7.10 PM OF LIGHTING DISTRIBUTION BOARD  7.10 PM OF LIGHTING DISTRIBUTION BOARD  7.10 PM OF LIGHTING DISTRIBUTION BOARD  7.10 PM OF LIGHTING DISTRIBUTION BOARD  7.10 PM OF LIGHTING DISTRIBUTION BOARD  7.11 PM OF LIGHTING DISTRIBUTION BOARD  7.12 PM OF LIGHTING DISTRIBUTION BOARD  7.14 PM OF LIGHT BY DEBESTAL FAN  7.15 PM OF LIGHTING DISTRIBUTION BOARD  7.16 PM OF LIGHTING DISTRIBUTION BOARD  7.17 PM OF LIGHTING DISTRIBUTION BOARD  7.18 PM OF LIGHTING DISTRIBUTION BOARD  7.19 PM OF LIGHT	2.6	WATER HEATER / GEYSER	NOS	20	336	6720
2.8         ALL TYPE OF WALL MOUNTED / PEDESTAL FAN         NOS         10         167         1670           2.9         EXHAUST FAN LIGHT DUTY (1 PH)         NOS         5         167         335           2.10         PM OF 1 PH AC LIGHTING PANELS - 9CKT         NOS         2         167         334           2.11         PM OF 1 PH AC LIGHTING PANELS - 9CKT         NOS         2         167         334           2.12         PM OF 3 PH LIGHTING PANELS - 3 CKT /6CKT         NOS         150         336         50400           2.13         PM OF DC LIGHTING PANELS - 3 CKT /6CKT         NOS         30         336         10080           2.14         PM OF 25KVA DRY TYPE LIGHTING TRANSFORMER         NOS         2         688         1376           2.15         PM OF 100/50KVA DRY TYPE LIGHTING TRANSFORMER         NOS         60         688         41280           2.16         PM OF 100/50KVA DRY TYPE LIGHTING TRANSFORMER         NOS         60         688         41280           2.16         PM OF 100/50KVA DRY TYPE LIGHTING TRANSFORMER         NOS         60         688         41280           2.16         PM OF JB VA CA, 5 KVA SUPPLY DISTRIBUTION BOADD         NOS         30         167         5010           2.17						+
2.9						+
2.10						+
2.11         PM OF 1 PH AC LIGHTING PANEL         NOS         2         167         334           2.12         PM OF 3 PH LIGHTING PANEL         NOS         150         336         50400           2.13         PM OF DC LIGHTING PANELS-3 CKT /6CKT         NOS         30         336         10080           2.14         PM OF 25KVA DRY TYPE LIGHTING TRANSFORMER WITH DB         NOS         2         688         1376           2.15         PM OF 100/50KVA DRY TYPE LIGHTING TRANSFORMER WITH DB         NOS         60         688         41280           2.16         PM OF 100/50KVA DRY TYPE LIGHTING TRANSFORMER         NOS         60         688         41280           2.16         PM OF 100/50KVA DRY TYPE LIGHTING TRANSFORMER         NOS         6         345         2070           2.16         PM OF 100/50KVA DRY TYPE LIGHTING DISTRIBUTION BOARD         NOS         6         345         2070           2.17         PM OF DC 14 CANGE OVER SWITCH UP TO 300X 300         NOS         30         167         5010           2.18         PM OF JB/ CHANGE OVER SWITCH MORE THAN 300X 300 \$10         NOS         30         167         3340           2.18         PM OF LT PANGE (ONE VERTICAL WITH ALL MODULES) / WELDING SUPLY DB/9 SENERGY METER PANEL         NOS         60         <		, ,				+
2.12         PM OF 3 PH LIGHTING PANEL         NOS         150         336         50400           2.13         PM OF DC LIGHTING PANELS-3 CKT /6CKT         NOS         30         336         10080           2.14         PM OF 25KVA DRY TYPE LIGHTING TRANSFORMER WITH DB         NOS         2         688         1376           2.15         PM OF 100/50KVA DRY TYPE LIGHTING TRANSFORMER NOS         60         688         41280           2.16         PM OF 24V AC, 5 KVA SUPPLY DISTRIBUTION BOARD WITH TRANSFORMER WITH TRANSFORMER         NOS         6         345         2070           2.17         PM OF JB / CHANGE OVER SWITCH UP TO 300X 300 SIZE         NOS         30         167         5010           2.18         PM OF DB / CHANGE OVER SWITCH MORE THAN 300X SIZE         NOS         20         167         3340           2.19         PM OF LT PANEL (ONE VERTICAL WITH ALL MODULES) / WELDING SUPPLY DB/9 S ENERGY METER PANEL         NOS         60         688         41280           2.19         PM OF LT MOTORS UP TO 15 KW         NOS         30         688         20640           2.20         PM OF LT MOTORS UP TO 15 KW         NOS         10         345         3450           2.21         PM OF LT MOTORS UP TO 15 KW         NOS         2         2065         41						
2.13         PM OF DC LIGHTING PANELS- 3 CKT /6CKT         NOS         30         336         10080           2.14         PM OF 25KVA DRY TYPE LIGHTING TRANSFORMER         NOS         2         688         1376           2.15         PM OF 100/50KVA DRY TYPE LIGHTING TRANSFORMER (12+13) ALONG WITH DB         NOS         60         688         41280           2.16         PM OF 24V AC, 5 KVA SUPPLY DISTRIBUTION BOARD WITH TRANSFORMER (12+13) ALONG WITH DB         NOS         6         345         2070           2.17         SIZE         SIZE CHANGE OVER SWITCH UP TO 300X 300         NOS         30         167         5010           2.18         PM OF JB C CHANGE OVER SWITCH MORE THAN 300X SIZE         NOS         20         167         3340           2.19         PM OF LT PANEL (ONE VERTICAL WITH ALL MODULES) / (WELDING SUPPLY DB/ 9 ENERGY METER PANEL         NOS         60         688         41280           2.19         PM OF LT PANEL (ONE VERTICAL WITH ALL MODULES) / (WELDING SUPPLY DB/ 9 ENERGY METER PANEL         NOS         30         688         20640           2.19         PM OF LT ONTORS UP TO 15 KW         NOS         30         688         20640           2.20         PM OF LT MOTORS UP TO 15 KW         NOS         10         345         3450           2.21 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>ł</td></t<>						ł
2.14   PM OF 25KVA DRY TYPE LIGHTING TRANSFORMER WITH DB   NOS   2   688   1376						ł
2.15		PM OF 25KVA DRY TYPE LIGHTING TRANSFORMER				
WITH TRANSFORMER	2.15	PM OF 100/50KVA DRY TYPE LIGHTING	NOS	60	688	41280
2.17   SIZE	2.16	,	NOS	6	345	2070
2.18   300 SIZE	2.17		NOS	30	167	5010
WELDING SUPPLY DB/ 9 ENERGY METER PANEL   NOS   600   608   41250	2.18		NOS	20	167	3340
2.20         CKT         NOS.         30         688         2040           2.21         PM OF LT MOTORS UP TO 15 KW         NOS         10         345         3450           2.22         PM OF 100 TO 500 KVA OIL FILLED TRANSFORMER         NOS         2         2065         4130           2.23         MAKE INCLUDING FAN OILING / GREASING OF ANY TYPE AND AKE INCLUDING EXHAUST FAN / PEDESTAL FAN         NOS.         50         167         8350           2.24         CAPACITOR REPLACEMENT FOR CEILING FAN, EXHAUST FAN, PEDESTAL FAN ETC.         NOS.         50         167         8350           3         REMOVAL /& ERECTION OF FOLLOWING TYPE OF LIGHTING SINCLUDING ERECTION/ REMOVAL OF ALL COMPONENT / ACCESSORIES.         NOS.         50         167         8350           3.1         FLUORESCENT/LED LIGHT FITTINGS (1X40W, 2X40W, 1X20W & 4X 20W ETC.) EXCLUDING FALSE CEILING AREA INSTALLED AT NORMAL (3 TO 5 MTR) HEIGHT.         NOS.         75         167         12525           3.2         FLUORESCENT/LED LIGHT FITTINGS IN ALL FALSE CEILING AREA.         NOS.         100         167         16700           3.3         ALL TYPE OF INCANDESCENT/CFL/LED LIGHT FITTINGS (NOS IN ALL AREA.         NOS.         25         167         4175           3.4         ALL HPSV/HPMV/LED LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC AT NORMAL HEIGHT UP TO 6.0MTR. <t< td=""><td>2.19</td><td></td><td>NOS</td><td>60</td><td>688</td><td>41280</td></t<>	2.19		NOS	60	688	41280
2.22         PM OF 100 TO 500 KVA OIL FILLED TRANSFORMER         NOS         2         2065         4130           2.23         CEILING FAN OILING / GREASING OF ANY TYPE AND MAKE INCLUDING EXHAUST FAN / PEDESTAL FAN ETC.         NOS.         50         167         8350           2.24         CAPACITOR REPLACEMENT FOR CEILING FAN, EXHAUST FAN, PEDESTAL FAN ETC.         NOS.         50         167         8350           3         REMOVAL /& ERECTION OF FOLLOWING TYPE OF LIGHTINGS INCLUDING ERECTION/ REMOVAL OF ALL COMPONENT / ACCESSORIES.         NOS.         50         167         12525           3.1         1X20W & 4X 20W ETC.) EXCLUDING FALSE CEILING AREA INSTALLED AT NORMAL (3 TO 5 MTR) HEIGHT.         NOS         75         167         12525           3.2         FLUORESCENT/LED LIGHT FITTINGS IN ALL FALSE CEILING AREA.         NOS         100         167         16700           3.3         ALL TYPE OF INCANDESCENT/CFL/LED LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC AT NORMAL HEIGHT UP TO 6.0MTR.         NOS         25         167         4175           3.4         ALL HPSV/HPMV/LED LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT ACCESSORIES.         NOS         50         512         25600           3.6         LIGHT FITTING MOUNTED IN THE TG HALL INCOMERAL AREA LIGHT FIT	2.20		NOS.	30	688	20640
2.23         CEILING FAN OILING / GREASING OF ANY TYPE AND MAKE INCLUDING EXHAUST FAN / PEDESTAL FAN ETC.         NOS.         50         167         8350           2.24         CAPACITOR REPLACEMENT FOR CEILING FAN, EXHAUST FAN, PEDESTAL FAN ETC.         NOS.         50         167         8350           3         REMOVAL /& ERECTION OF FOLLOWING TYPE OF LIGHTINGS INCLUDING ERECTION/ REMOVAL OF ALL COMPONENT / ACCESSORIES.         NOS         75         167         12525           3.1         FLUORESCENT/LED LIGHT FITTINGS (1X40W, 2X40W, 1X20W & 4X 20W ETC.) EXCLUDING FALSE CEILING AREA INSTALLED AT NORMAL (3 TO 5 MTR) HEIGHT.         NOS         75         167         12525           3.2         FLUORESCENT/LED LIGHT FITTINGS IN ALL FALSE CEILING AREA.         NOS         100         167         16700           3.3         ALL TYPE OF INCANDESCENT/CFL/LED LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC AT NORMAL HEIGHT UP TO 6.0MTR.         NOS         25         167         4175           3.4         ALL HPSV/HPMV/LED LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT NOS         50         512         25600           3.5         FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT 6.00 TO 12.00MTR.         NOS         5         507         2535           3.6         LIGHT FITTINGS (HPMV/HPSV/SON/ NATCH TOWER, NOS TOWERS, ROOF TOPS.         NOS         55         512         12800 <td>2.21</td> <td>PM OF LT MOTORS UP TO 15 KW</td> <td>NOS</td> <td>10</td> <td>345</td> <td>3450</td>	2.21	PM OF LT MOTORS UP TO 15 KW	NOS	10	345	3450
2.23       MAKE INCLUDING EXHAUST FAN / PEDESTAL FAN ETC.       NOS.       50       167       8350         2.24       CAPACITOR REPLACEMENT FOR CEILING FAN, EXHAUST FAN, PEDESTAL FAN ETC.       NOS.       50       167       8350         3       REMOVAL /& ERECTION OF FOLLOWING TYPE OF LIGHTING FITTINGS INCLUDING ERECTION/ REMOVAL OF ALL COMPONENT / ACCESSORIES.       0       167       12525         3.1       1X20W & 4X 20W ETC.) EXCLUDING FALSE CEILING AREA INSTALLED AT NORMAL (3 TO 5 MTR) HEIGHT.       NOS       75       167       12525         3.2       FLUORESCENT/LED LIGHT FITTINGS IN ALL FALSE CEILING AREA.       NOS       100       167       16700         3.3       ALL TYPE OF INCANDESCENT/CFL/LED LIGHT FITTINGS 230V AC/DC UP TO 200W LAMP IN ALL AREA.       NOS       25       167       4175         3.4       ALL HPSV/HPMV/LED LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC AT NORMAL HEIGHT UP TO 6.0MTR.       NOS       300       336       100800         3.5       FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT 6.00 TO 12.00MTR.       NOS       50       512       25600         3.6       LIGHT FITTING MOUNTED IN THE TG HALL AREA LIGHT FITTINGS (HPMV/HPSV/SON/WATCH TOWERS, ROOF TOPS.       NOS       25       512       12800	2.22	PM OF 100 TO 500 KVA OIL FILLED TRANSFORMER	NOS	2	2065	4130
EXHAUST FAN, PEDESTAL FAN ETC.   NOS.   50   167   8350	2.23	MAKE INCLUDING EXHAUST FAN / PEDESTAL FAN	NOS.	50	167	8350
LIGHTING FITTINGS INCLUDING ERECTION/ REMOVAL OF ALL COMPONENT / ACCESSORIES.  FLUORESCENT/LED LIGHT FITTINGS (1X40W, 2X40W, 1X20W & 4X 20W ETC.) EXCLUDING FALSE CEILING AREA INSTALLED AT NORMAL (3 TO 5 MTR) HEIGHT.  3.2 FLUORESCENT/LED LIGHT FITTINGS IN ALL FALSE CEILING AREA.  3.3 ALL TYPE OF INCANDESCENT/CFL/LED LIGHT FITTINGS 230V AC/DC UP TO 200W LAMP IN ALL AREA.  3.4 ALL HPSV/HPMV/LED LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC AT NORMAL HEIGHT UP TO 6.0MTR.  3.5 FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT NOS 50 512 25600 6.00 TO 12.00MTR.  3.6 LIGHT FITTING MOUNTED IN THE TG HALL NOS 5 507 2535 AREA LIGHT FITTINGS (HPMV/HPSV/SON/ NATCH TOWERS, ROOF TOPS.	2.24		NOS.	50	167	8350
3.1       1X20W & 4X 20W ETC.) EXCLUDING FALSE CEILING AREA INSTALLED AT NORMAL (3 TO 5 MTR) HEIGHT.       NOS       75       167       12525         3.2       FLUORESCENT/LED LIGHT FITTINGS IN ALL FALSE CEILING AREA.       NOS       100       167       16700         3.3       ALL TYPE OF INCANDESCENT/CFL/LED LIGHT FITTINGS INCLUDING CG FITTINGS 230V AC/DC UP TO 200W LAMP IN ALL AREA.       NOS       25       167       4175         3.4       ALL HPSV/HPMV/LED LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC AT NORMAL HEIGHT UP TO 6.0MTR.       NOS       300       336       100800         3.5       FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT 6.00 TO 12.00MTR.       NOS       50       512       25600         3.6       LIGHT FITTINGS (HPMV/HPSV/SON/ AREA LIGHT FITTINGS (HPMV/HPSV/SON/ AREA LIGHT FITTINGS (HPMV/HPSV/SON/ AREA LIGHT FITTINGS (HPMV/HPSV/SON/ WATCH TOWERS, ROOF TOPS.       NOS       25       512       12800	<u>3</u>	LIGHTING FITTINGS INCLUDING ERECTION/ REMOVAL				
3.2 CEILING AREA.  3.3 ALL TYPE OF INCANDESCENT/CFL/LED LIGHT FITTINGS 230V AC/DC UP TO 200W LAMP IN ALL AREA.  3.4 ALL HPSV/HPMV/LED LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC AT NORMAL HEIGHT UP TO 6.0MTR.  3.5 ALL HPSV/HPMV/LED HIGH BAY/MEDIUM BAY LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT 6.00 TO 12.00MTR.  3.6 LIGHT FITTING MOUNTED IN THE TG HALL AREA LIGHT FITTINGS (HPMV/HPSV/SON/HALOGEN/LED) MOUNTED ON FLOOD LIGHT TOWER, WATCH TOWERS, ROOF TOPS.	3.1	1X20W & 4X 20W ETC.) EXCLUDING FALSE CEILING	NOS	75	167	12525
FITTINGS 230V AC/DC UP TO 200W LAMP IN ALL AREA.  3.4 ALL HPSV/HPMV/LED LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC AT NORMAL HEIGHT UP TO 6.0MTR.  ALL HPSV/HPMV/LED HIGH BAY/MEDIUM BAY LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT NOS 50 512 25600 6.00 TO 12.00MTR.  3.6 LIGHT FITTING MOUNTED IN THE TG HALL NOS 5 507 2535 AREA LIGHT FITTINGS (HPMV/HPSV/SON/ HALOGEN/LED) MOUNTED ON FLOOD LIGHT TOWER, WATCH TOWERS, ROOF TOPS.	3.2		NOS	100	167	16700
3.4 BOX IGNITER ETC AT NORMAL HEIGHT UP TO 6.0MTR.  ALL HPSV/HPMV/LED HIGH BAY/MEDIUM BAY LIGHT FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT 6.00 TO 12.00MTR.  3.6 LIGHT FITTING MOUNTED IN THE TG HALL AREA LIGHT FITTINGS (HPMV/HPSV/SON/ HALOGEN/LED) MOUNTED ON FLOOD LIGHT TOWER, WATCH TOWERS, ROOF TOPS.  NOS 300 336 100800 336 100800	3.3		NOS	25	167	4175
3.5 FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT NOS 50 512 25600 6.00 TO 12.00MTR.  3.6 LIGHT FITTING MOUNTED IN THE TG HALL NOS 5 507 2535 AREA LIGHT FITTINGS (HPMV/HPSV/SON/ HALOGEN/LED) MOUNTED ON FLOOD LIGHT TOWER, WATCH TOWERS, ROOF TOPS.	3.4		NOS	300	336	100800
AREA LIGHT FITTINGS (HPMV/HPSV/SON/ HALOGEN/LED) MOUNTED ON FLOOD LIGHT TOWER, WATCH TOWERS, ROOF TOPS.  AREA LIGHT FITTINGS (HPMV/HPSV/SON/ NOS 25 512 12800	3.5	FITTINGS INCLUDING CG BOX IGNITER ETC.AT HEIGHT	NOS	50	512	25600
3.7 HALOGEN/LED) MOUNTED ON FLOOD LIGHT TOWER, NOS 25 512 12800 WATCH TOWERS, ROOF TOPS.	3.6	LIGHT FITTING MOUNTED IN THE TG HALL	NOS	5	507	2535
3.8   POST TOP LANTERN FITTING   NOS   2   336   672	3.7	HALOGEN/LED) MOUNTED ON FLOOD LIGHT TOWER,	NOS	25	512	12800
,	3.8	POST TOP LANTERN FITTING	NOS	2	336	672



3.9	ALL TYPE STREET LIGHTS FITTINGS.	NOS	10	676	6760
3.10	AVIATION LIGHT FITTING (TWIN) ON 120 MTR. HIGH CHIMNEY.	NOS	5	688	3440
<u>4</u>	REMOVAL /& ERECTION OF FOLLOWING ITEMS INCLUDING ALL ACCESSORIES.				
4.1	5A/15A/32A DECORATIVE SOCKET/RECEPTACLE WITH SWITCH & BOX, FAN REGULATOR/MCB/ELCB ETC	NOS	100	167	16700
4.2	10A/20A/32 A, 230V/24V METAL CLAD INDUSTRIAL/FLAME PROOF TYPE RECEPTACLE/POWER PLUG/ SWITCH//MCB/ELCB/TIMERS/SPIKE GUARD	NOS	80	167	13360
4.3	32A,415V INDUSTRIAL TYPE RECEPTACLE	NOS	4	336	1344
4.4	63A,415V INDUSTRIAL TYPE RECEPTACLE	NOS	6	336	2016
4.5	COMPLETE DISTRIBUTION BOARD(WOODEN/METALLIC) OF MAX. SIZE 1X1FEET INCLUDING INTERNAL WIRING TERMINATION.	NOS	80	251	20080
4.6	3 PH SWITCH BOX / CHANGEOVER BOX UP TO 250A	NOS	22	688	15136
4.7	ALL TYPE OF CEILING FAN	NOS	50	336	16800
4.8	ALL TYPE OF WALL MOUNTED / PEDASTAL FAN	NOS	16	167	2672
4.9	EXHAUST FAN LIGHT DUTY (1 PH)	NOS	4	167	668
4.10	1 PH AC LIGHTING PANELS- 9CKT	NOS	2	345	690
4.11	1 PH AC LIGHTING PANELS- 3CKT/6CKT	NOS	2	345	690
4.12	3 PH LIGHTING PANEL	NOS	5	688	3440
4.13	DC LIGHTING PANELS- 3CKT/6CKT	NOS	2	688	1376
4.14	100KVA /50KVA LIGHTING DISTRIBUTION BOARD (LDB) W/O TRANSFORMER	NOS	1	1024	1024
4.15	100KVA / 50KVA DRY TYPE LIGHTING TRANSFORMER	NOS	2	1713	3426
4.16	25KVA STREET LIGHTING DISTRIBUTION BOARD (SLDB) W/O TRANSFORMER	NOS	1	1368	1368
4.17	25KVA DRY TYPE LIGHTING TRANSFORMER	NOS	1	1368	1368
4.18	24V AC, 5 KVA SUPPLY DISTRIBUTION BOARD	NOS	1	1368	1368
4.19	JB / CHANGE OVER SWITCH UP TO 300X 300 SIZE	NOS	4	336	1344
4.20	JB/ CHANGE OVER SWITCH MORE THAN 300X 300 SIZE	NOS	4	507	2028
4.21	3PH /1 PH ENERGY METERS	NOS	5	336	1680
4.22	LT PANEL / WELDING SUPPLY DISTRIBUTION PANEL	NOS	2	1713	3426
<u>5</u>	ERECTION / DISMANTLING OF FOLLOWING INCLUDING WELDING / CUTTING & PAINTING				
5.1	50X6 TO 75X8 MS ANGLE	MTR.	25	340	8500
5.2	25X3 TO 40X6 MS ANGLE	MTR.	25	340	8500
5.3	50MM TO 100MM CHANNEL (ISMC)	MTR.	5	507	2535
5.4	ALL TYPE MS/ GI FLATS/PIPE/POLES	MTR.	50	169	8450
6	MISCELLANEOUS WORKS				
6.1	FAULT FINDING/RECTIFICATION LIKE EARTH LEAKAGE/ EARTH FAULT IN LIGHTING CKTS ETC.	NOS	708	345	244260
6.2	ERECTION OF 20MM /40MM DIA GI CONDUIT ON METAL STRUCTURE, WALL ETC. INCLUDING SPACERS, SADDLES, GI EARTHING WIRE, JBS, TEES ETC.	MTR.	100	167	16700



6.3	DISMANTLING/REMOVAL OF CONDUIT DESCRIBED AT 6B ABOVE.	MTR.	100	85	8500
6.4	ERECTION OF CASING CAPPING INCLUDING, TEES, ELBOWS ETC.	MTR.	100	85	8500
6.5	DISMANTLING/REMOVAL OF CASING CAPPING INCLUDING, TEES, ELBOWS, WIRES ETC.	MTR.	25	42	1050
6.6	LAYING/PULLING OF PVC INSULATED COPPER WIRE (3 NOS 1.5&4.0 SQ MM) IN CONDUITS/CASING-CAPPING	MTR.	616	57	35112
6.7	ERECTION OF RIGID PVC CONDUIT INCLUDING ALL REQUIRED ACCESSORIES.	MTR.	100	85	8500
6.8	DISMANTLING/REMOVAL OF RIGID PVC CONDUIT INCLUDING ALL REQUIRED ACCESSORIES.	MTR.	51	42	2142
6.9	REMOVAL OF PVC WIRES ALREADY LAID IN CONDUITS/CASING-CAPPING (3 NOS 1.5&4.0 SQ MM).	MTR.	200	21	4200
6.10	PROVIDING TEMPORARY LIGHTING FIXTURES DURING SHUTDOWN / FESTIVALS ALONG WITH FLEXIBLE CABLE ETC	NOS	100	256	25600
6.11	POWER SUPPLY CONNECTION & REMOVAL FOR DIFFERENT WORK OF OTHER AGENCY LIKE FOR WELDING M/C, GRINDING M/C, LIGHTING FIXTURES ETC	NOS	200	172	34400
6.12	POLYTHENE COVERING FOR JB / CHANGEOVER SWITCH / LIGHTING PANELS ETC.	KG	150	85	12750
6.13	CLEANING OF LP / LDB / WDB / C/O SWITCH ETC. LOCATED IN VARIOUS AREAS BY AIR BLOWER ONLY	NOS.	150	167	25050
6.14	LAYING OF POWER & CONTROL CABLE THROUGH WALLS, STRUCTURES, CABLE TRAYS/TRANCHES ETC INCLUDING DRESSING (WITHOUT DRESSING 80% OF UNIT RATE WILL BE APPLICABLE)	KG	5000	15.6	78000
6.15	EXCAVATION (750MM DEPTH, 300 MM WIDE), BRICK & SAND BEDDING, BACKFILLING FOR LAYING OF CABLES IN GROUND (SAND & BRICKS SHALL BE SUPPLIED BY GIPCL)	MTR.	80	167	13360
6.16	GLANDING & TERMINATION OF POWER CABLE UP TO 16 SQMM SIZE (GLAND & LUGS SHALL BE SUPPLIED BY GIPCL) ONE END	NOS	100	172	17200
6.17	GLANDING & TERMINATION OF POWER CABLE FROM 25 TO 70 SQMM SIZE (GLAND & LUGS SHALL BE SUPPLIED BY GIPCL) ONE END	NOS	20	172	3440
6.18	GLANDING & TERMINATION OF POWER CABLE FROM 95 TO 185 SQMM SIZE (GLAND & LUGS SHALL BE SUPPLIED BY GIPCL) ONE END	NOS	20	345	6900
6.19	TIMER SETTING / GEYSER THERMOSTAT RE- SETTING/MCB OR ELCB RE-SETTING	NOS	200	85	17000
6.20	PER DAY CHARGES FOR DEPUTING ONE TECHNICIAN & ONE HELPER FOR ANY LIGHTING WORK AT PATNA PUMP HOUSE/SOLAR PLANT	NOS	30	1396	41880
6.21	PER DAY CHARGES FOR DEPUTING ONE TECHNICIAN & TWO HELPER FOR ANY LIGHTING WORK AT PATNA PUMP HOUSE/SOLAR PLANT	NOS	10	2075	20750



7	PROVIDING ADDITIONAL MAN POWER FOR UNIT SHUT DOWN (ROUND THE CLOCK), PRESENCE DURING FUNCTION & OTHER UNFORESEEN JOBS ETC.				
7.1	SUPERVISOR (DEE) - NORMAL 8 HOUR DUTY	DAY	2	715	1430
7.2	ITI TECHNICIAN - NORMAL 8 HOUR DUTY	DAY	90	697	62730
7.3	HELPER - NORMAL 8 HOUR DUTY	DAY	240	680	163200
7.4	SUPERVISOR (DEE) - OT AFTER NORMAL 8 HRS DUTY	HRS	2	95	190
7.5	ITI TECHNICIAN - OT AFTER NORMAL 8 HRS DUTY	HRS	150	92	13800
7.6	HELPER - OT AFTER NORMAL 8 HRS DUTY	HRS	150	90	13500
C2	TOTAL SOR VALUE FOR MAIN PLANT SLPP-2 LIGHTIN YEARS	NG FOR	TWO		1867192



#### **SUMMARY OF PRICE SCHEDULES**

	PAKAGE A (MAIN PLANT & SOLAR)	TOTAL W/O GST IN Rs.
A1	PRICE SCHEDULE A1 : TOTAL MAIN PLANT SLPP-1 PM FOR TWO YEAR	4003559
A2	PRICE SCHEDULE A2 : TOTAL MAIN PLANT SLPP-2 PM FOR TWO YEAR	3849614
A3	PRICE SCHEDULE A3: TOTAL SOLAR PLANT PM FOR TWO YEAR	184299
A4	PRICE SCHEDULE A4 : TOTAL MAIN PLANT DEFECT SLP1 & 2 FOR TWO YEAR	2799674
A5	PRICE SCHEDULE A5 : TOTAL SOLAR PLANT DEFECT FOR TWO YEAR	47119
A6	PRICE SCHEDULE A6 : TOTAL MAIN PLANT UNFORESEEN JOB FOR TWO YEAR	180340
Α	TOTAL FOR PACKAGE A ( A1 TO A6) FOR TWO YEAR	11064605
	PAKAGE B (LLHS, AHS, LIME AND EXTERNAL LIGNITE HANDLING SYSTEM AT MINES END)	
B1	PRICE SCHEDULE B1 : TOTAL LLHS, AHS, LIME PM FOR TWO YEAR	5846863
B2	PRICE SCHEDULE B2 : TOTAL LLHS, AHS, LIME DEFECT FOR TWO YEAR	2675767
В3	PRICE SCHEDULE B3 : TOTAL LLHS, AHS, LIME SHIFT MAINT. FOR TWO YEAR	2444040
B4	PRICE SCHEDULE B4 : TOTAL LLHS, AHS, LIME UNFORSEEN JOB FOR TWO YEAR	215220
В	TOTAL FOR PACKAGE B ( B1 TO B4) FOR TWO YEAR	11181890
	PAKAGE C (LIGHTING SYSTEM OF MAIN PLANT, SOLAR PLANT & COLONY)	
C1	PRICE SCHEDULE C1 : TOTAL MAIN PLANT SLPP1, SOLAR & COLONY FOR TWO YEAR	3657788
C1	PRICE SCHEDULE C2 : TOTAL MAIN PLANT SLPP2 FOR TWO YEAR	1867192
С	TOTAL FOR PACKAGE C ( C1 TO C2) FOR TWO YEAR	5524980
D	TOTAL ESTIMATED SOR PRICE FOR TWO YEAR (WITHOUT GST) A+B+C	27771475

**NOTE**: THE ABOVE RATES ARE INCLUSIVE OF ALL LABOUR COST, EQUIPMENTS, SUPERVISION, TOOLS, TACKLES, ROYALTIES, DUTIES ALL TAXES, ETC BUT EXCLUDING GST

#### My rates are as under.

#### At estimated value

OR \_\_\_\_\_\_%age above the estimated value
OR \_\_\_\_\_%age below the estimated value.



#### **SECTION-F**

#### **LIST OF ANNEXURES & FORMS**

#### 1.0 ANNEXURE-A

### CHECK LIST FOR PASSING THE BILLS (BIENNIAL MAINTENANCE CONTRACT)

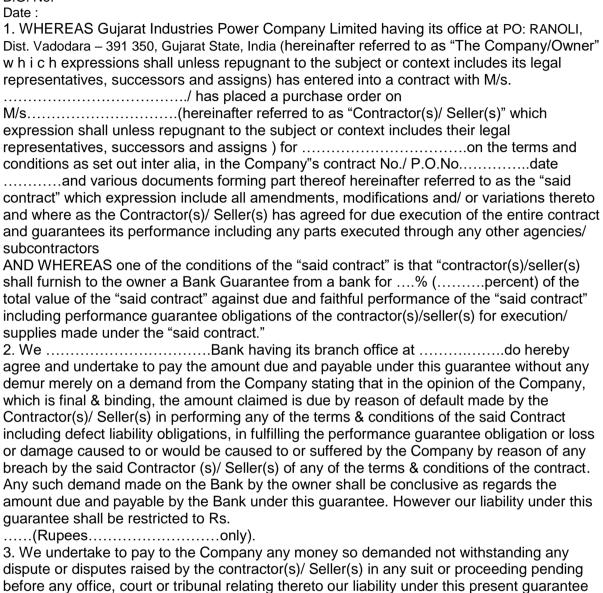
Fo	r the month of				
1.	Work order/PO no. & contract va	ılue :			
2.	Nature of work	:			
3.	Duration of work order	: From	to		
4.	Maxi. No. of manpower per day deployed in the month	: M	_F	Total	
5.	Details of labour license	: Valid up to _		_ for	persons
6.	Details of E.C. policy	: Valid up to _		_ for	persons
7.	Documents attached for verificat for the previous month		ndance she	eets	Yes/No
		: PF Challan			Yes/No
8.	Documents attached for verificat (In case of final bill)		ent Registe	ır	Yes/No
		: Leave wage	Register		Yes/No
9.	Security deposit / Retention mor lying with Co.	•	s, Rs		
Da	te:		Sig	•	he contractor fficial stamp.



#### 2.0 ANNEXURE-B

### PROFORMA FOR CONTRACT SECURITY-CUM-PERFORMANCE GUARANTEE BY SELLER / CONTRACTOR.

(To be executed on non-judicial stamped paper of approximate value) B.G. No.



dispute or disputes raised by the contractor(s)/ Seller(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not dependent or conditional on the owner proceeding against the Contractor(s)/ Seller(s). 37



- 4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said Contractor(s)/ Seller(s) but shall in all respect and for all purposes be binding and operative until payment of all money due or liabilities under the said contract(s)/ Order(s) are fulfilled. 5 The Bank further unconditionally agrees with Gujarat Industries Power Company Limited (GIPCL) that Gujarat Industries Power Company Limited (GIPCL) shall be at liberty, without the Bank's consent and without affecting in any manner the Bank's obligation under this Guarantee, from time to time, to:
- a. Vary and / or modify any of the terms and conditions of the Agreement.
- b. Extend and / or postpone the time for performance of the obligations of the Contractor under the Agreement.
- c. Forbear or enforce any of the rights exercisable by Gujarat Industries Power Company Limited (GIPCL) against the Contractor under the terms and conditions of the Agreement.
- 6. This guarantee shall be in addition to and not in substitution or in derogation of any other security held by Gujarat Industries Power Company Limited (GIPCL) to secure the performance of the obligations of the Contractor under the Agreement.
- 7. No action, event or condition, which by any Applicable Law should operate to discharge the Bank from liability hereunder, shall have any effect and the Bank hereby waives any right it may have to apply such law, so that in all respects its liability hereunder shall be irrevocable and, except as stated herein, unconditional in all respects.
- 8. This guarantee will remain valid up \_\_\_\_\_\_ days or \_\_\_\_\_ whichever is earlier. The Bank undertakes not to revoke this guarantee during its currency without previous consent of the OWNER/PURCHASER and further agrees that if this guarantee is extended for a period as mutually agreed between bidder & owner/purchaser, the guarantee shall be valid for a period so extended provided that a written request for such extension is received before the expiry of validity of guarantee.
- 9. We .......Bank further agree with the Company that the company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract(s)/ Order(s) or to extend the time of performance by the said Contractor(s) Seller(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s)/ Seller(s) and to forbear or enforce any of the terms and conditions relating to the said Contract(s)/ Order(s) and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor (s) / Seller(s) or for any forbearance, act or omission on the part of the Company or any indulgence by the Company to the said Contractor(s)/ Seller(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.
- 10. Notwithstanding anything contained herein before, our liability shall not exceed Rs.....(Rupees.....only) and shall remain in force till......Unless a demand or claim under this Guarantee is made on us within three months from the date of expiry we shall be discharged from all the liabilities under this guarantee.

  Date.......Bank

Corporate Seal of the Bank By its constitutional Attorney Signature of duly Authorized person On behalf of the Bank

With Seal & Signature code

Note: BGs to be furnished from any of the banks listed at Annexure -VI of Volume I.



#### 3.0 ANNEXURE-C

### PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

	(To be executed on non-judicial stamped paper of appropriate value)
	B. G. NoDate:
1.	WHEREAS M/s. Gujarat Industries Power Company Limited having its Corporate Office at PO: RANOLI, Dist. Vadodara – 391 350, Gujarat State, India, India (hereinafter called "The Company Owner" which expression shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) has issued tender paper vide its Tender No
	(hereinafter called "the said tender")to M/s
2.	We
3.	We undertake to pay to the Company any money so demanded not withstanding any dispute or disputes raised by the tenderer (s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not dependent or conditional on the owner proceeding against the tenderer.
4.	The guarantee herein contained shall not be determined or affected or

suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said tenderer(s) but shall in all respect and for all purposes be binding and operative until payment of all



money due or liabilities under the said contract(s)/ Order(s) are fulfilled.

- 5. We .......Bank Ltd. further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the finalization of the said tender and that it shall continue to be enforceable till the said tender is finally decided and order placed on the successful tenderer(s) and or till all the dues of the company under or by virtue of the said tender have been fully paid and its claims satisfied or discharged or till a duly authorized officer of the company certifies that the terms and conditions of the said tender have been fully and properly carried out by the said tenderer (s) and accordingly discharges the guarantee.
- 6. That the Owner Company will have full liberty without reference to us and without affecting this guarantee to postpone for any time or from time to time the exercise of any of the power of the owner under the tender.

7. l	Notwithstanding anyt	thing contained herein before,	our liability shall not exceed
	Rs	(Rupees	only) and shall remain in
	force tillsubmission of Bid).	(Date to be filled up shall be	180 days from the date of
`	capitilocion of blaj.		

Date	
	Bank Corporate Seal of
	the Bank By its
	constitutional Attorney

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



#### 4. ANNEXURE-D

### <u>PERFORMA CERTIFICATE</u> (No claim, No arbitration)

To,
Addl. General Manager (SLPP)
Gujarat Industries Power Company Limited,
Surat Lignite Power Plant,
Village: Nani Naroli, Ta. Mangrol,
Dist. Surat – 394110 (Gujarat).

<u>Dear Sir,</u>	
Subject:	
Ref: Work Order No.:	Dated

We hereby confirm with free consent as under:-

- 1. The measurements certified in final bill is full and final. We accept all the certified measurements and no claim related to the measurement is left.
- 2. The payment certified in that or above referred Lol / contract is full and final. We accept this, and no claim related to payment is left.
- 3. The rates of the 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 efferecoveries will be received by us.	ct as soon as payment from final bill after due
For, M/S	
Signature, Stamp and date.	



#### 5. 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

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



### 6. ANNEXURE-E

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

Name of	Name of Work:  Name of Agency:  Work Order No.:  DAILY WORK DONE REPORT FOR DATE:					
Name of	Supervisor of (	Contractor:				
Sign of Er	ngineer-in-charç	ge (to be taken at 0	08:30 AM to 08	3:45 AM):		
		_		Total nos. o	f trips certified t	oy me
Sign of Contractor's site-in-charge						
				(Shift-in-cha	arge, Main Cont	rol Room)
				Date:		



#### 6. ANNEXURE – F

# LIST OF MINIMUM TOOLS AND TACKLES TO BE PROVIDED BY THE CONTRACTOR (TENTATIVE) FOR EACH PACKAGE (A, B &C)

A. List of minimum tools and tackles for MAIN PLANT BMC (PACKAGE-A)

Sr.	Items	UOM	Min.
no			Qty
1	Standard tool box containing set of ring & D spanners, mechanical heavy screw drivers, tubular spanners, align keys, hammer, cutter, pliers set.	sets	12
2	Taparia make tester, screw driver set and pliers	nos	24
3	Hand drill Machine hammer /impact type with all size drill bits FOR METAL & CONCRETE	nos	1
4	heavy duty Hand drill Machine hammer /impact type with all size drill bits FOR METAL & CONCRETE	nos	1
5	3D/Jainson make Crimping tools for up to 10 sqmm cables	nos	2
6	3D/Jainson make Crimping tools for 16 to 70sqmm sqmm cables	nos	2
7	3D/Jainson make Crimping tools for 70 to 300sqmm sqmm cables	nos	2
8	Knife for cable insulation cutting	nos	12
9	Big size torch (Kisan torch) with spare cells.	nos.	4
10	Continuity tester	nos	6
11	Megger 500/1000Volts (Dual range) make MACO or RISHABH/Motwane make (Two hand operated & three electronic)	nos	5
12	Digital Multi meters-3½ Digit 1999 Count with Big Display, Audible Continuity, Diode & hFE Test Any reputed make	nos	4
13	Digital Clampmeters / Tongtesters 3¾ Digit 3999 Count 1000A AC Autoranging with Frequency	nos	4
14	Clip-on meter - DC up to 200 A	nos	1
15	Earth resistance measurement 0-100 ohm accuracy 5% reputed make	nos	1
16	Torque wrench large up to 120 N-M	nos	2
17	Hacksaw frame and high speed blade	set. each	4
18	3 Phase Welding machine with required poswer & welding cable (minimum 50mtr) and welding rod	nos	1
19	Measuring steel tapes (6 mtr & 30 mtr)	nos. each	2



20	Heavy duty Carry bag for tools & tacked for each technician	nos	15
21	Soldering iron with temperature control 150 watt / 50 watt	nos	1
22	De soldering gun and pump	nos	1
23	Hot air blower	nos	2
24	Air Blower	nos	4
25	Box spanner (8 MM TO 32 MM) SET	nos	3
26	Tubular spanner set (4MM TO 32 MM) SET	nos	3
27	Set of Allen Key 1.5 mm -12 mm	nos	4
28	Set of Allen Key .5 inch -2 inch	nos	4
29	Set of nut driver 3mm - 12 mm	nos	4
30	hand lamp with extention board and cable 20 mtr each with spare bulbs	nos	4
31	500 W halogen lamp with wire of 50 Meter length each with spare halogen tubes	nos	4
32	Reputed make set of insulated screw drivers	nos	3
33	Reputed make set of insulated D spannars	nos	3
34	bearing puller set	nos	1



# A. List of minimum tools and tackles for Lignite & Lime stone handling & milling, external Lignite handling system at Mangrol mines end, Ash handling system (Package-B)

Sr. No.	Measuring Instruments / Tools / Tackles	Qty.
1	Insulator tester 0 - 200M ohm, 500V DC. MACO or RISHABH/Motwani	10 Nos.
2	Insulation Testers 0 - 200M ohm, 1000V DC RISHABH/Motwane	2nos
3	Digital Multi meters-3½ Digit 1999 Count with Big Display, Audible Continuity, Diode Test Any reputed make MACO or RISHABH/Motwane	10 Nos.
4	Rond file, Flat file, Half round file Raugh & smooth	2set
5	Line tester tapariya-813	25
6	Clip-on meter - DC up to 200 A MACO or RISHABH/Motwane	2 Nos.
7	Digital Clamp meters / Tong testers 3¾ Digit 3999 Count 1000A AC Auto ranging with Frequency MACO or RISHABH/Motwane	6 Nos.
8	Digital Clamp meters / Tong testers 3¾ Digit- 0 - 5 A AC / DC MACO or RISHABH/Motwane	1 Nos.
9	Tool Bag	10nos
10	Torque wrench large up to 120 N-M	1 Sets
11	Earth Megger 0-100 ohm accuracy 5% reputed make	1 No.
12	Soldering iron with temperature control 150 watt / 50 watt	1 No.
13	De soldering gun and pump	1 set
14	Hand drill machine14MM with drill bits 3mm to 16 mm (metal & concrete) of different sizes,holesaw cutter 19,22,28,32,38,50 mm.two no each.	1 Nos.
15	Grease gun 1kg with flexible pipe	4
16	Bearing puller for bearing size up to NU 322	1 No.
17	Crimping Tool up to 16 sq. mm. Manual	10 No.
18	Crimping Tool 16-300mm hydraulic	1 No.
19	Crimping Tool Above 120 -630mmsq. mm. Hydraulic	1 No.
20	Hot air blower	1 Nos.
21	Air Blower Raliwulf/Bosch GBL 620	8 Nos.
22	Box spanner (8 MM TO 32 MM) SET Tapariya or any repute	2 set
23	Tubular spanner set (4MM TO 32 MM) SET Tapariya or any repute	2 set
24	Electrical T spanner 8,10,13 mm each	10set
25	Torches (Large size)	4 Nos.
26	Hacksaw (Small & Big size with pvc handle) WITH BLADE Tapariya or any repute	10 Each



27	Safety gloves –Elect. Insulated 11 KV	2 Pair
28	Acid proof gloves, shoes for battery maintenance	4Pair
29	Wire stripper Tapariya or any repute	10
		Nos.
30	Knife Tapariya pvc or any repute	10
24	Circlin Diara / hig 9 amall\inner 9 autorTangriya ar any repute	Nos.
31	Circlip Pliers ( big & small)inner & outerTapariya or any repute	2 Nos.
32	Set of Ring Spanners 5 mm- 32 mm Tapa Tapariya or any repute	10set
33	Set of Fixed Spanners 5 mm- 32 mm Tapariya or any repute	10 set
34	Hammer MS Meta 500 graml Tapariya or any repute	02
35	Set of Allen Key 1.5 mm -12 mm Tapariya or any repute	10 set
36	500 W halogen lamp with wire of 50 Meter length each	2 set
37	Wire brushes 12"	10no.
38	Paint brushes 2"	10 No.
39	Set of insulated screw drivers Tapariya or any repute	10 No
40	Heavy duty insulated screw drivers Tapariya or any repute	10 No.
41	Mechanical heavy duty screw drivers Tapariya or any repute	10 No.
42	Set of nut driver 7mm - 13 mm Tapariya or any repute	10 no.
43	Insulated cutting pliers Tapariya or any repute	10 no.
44	insulated plier Tapariya or any repute	18
44	Nose pliers & pliers Tapariya or any repute	10 set
45	Hammer MS Meta 250 graml Tapariya or any repute	10 no.
46	Hammer MS Meta 01kg graml Tapariya or any repute	01
46	Hammer Plastic Tapariya or any repute	2 no.
47	Chain pulley Block 5 ton, chain length 10 Meter Make – Indef or any repted with test certificate	01
48	Double way wire rope pulley capacity-5 ton-	1 no.
49	Chain pulley Block 1 ton, chain length 05 Meter Make -Indef or any reputed with test certificate.	2 no
	Gas cutting set with trolley, torch & pies.	1set
50		
51	M.S.Locker for cup board -21 Khana & 21 lock	01 set
52	One cupboard (M.S)	01 nos
53	One no offeice table with four nos chair	1set
54	Tapariya screw driver set WITH SIX BLADES INCLUDING	05
	EXTENSION1N840.no-	nos
55	3cx1.5 SQMM copper flexible cable	100
		Meters



# B. List of minimum tools and tackles for MAIN PLANT LIGHTING (PACKAGE- C)

Sr.	Items	Quantity
no		
1.	Standard tool box containing set of ring & D spanners, mechanical heavy screw drivers, tubular spanners, align keys, hammer, cutter, pliers set.	5 sets
2.	Ta paria make tester, screw driver set and pliers	14 nos.
3.	Box spanner (4 MM TO 32 MM) SET	1 set
4.	Hand drill Machine hammer /impact type with all size drill bits FOR METAL & CONCRETE	2 nos.
5.	3D/Jainson make Crimping tools for up to 10 sq.mm cables	2 nos.
6.	3D/Jainson make Crimping tools for 16 to 70sqmm sq.mm cables	1 nos.
7.	Knife for cable insulation cutting	6 nos.
8.	Digital Multimeter – Maco /Philips/Rishabh make	3 nos.
9.	Clip-on meter for measuring AC/DC current up to 100A Maco /Rishabh make	3 nos.
10.	Continuity tester	4 nos.
11.	Megger 500/1000Volts (Dual range) make MACO or RISHABH/MEGGER make (one hand operated & TWO electronic)	3 nos.
12.	Heavy duty Trolley for material handling	1 nos.
13.	1 Phase Welding machine with required cable (minimum 50mtr) and welding rod	1 nos.
14.	Measuring steel tapes (6 Meter & 30 Meter)	1 nos. each
15.	Hacksaw frame and high speed	3 set. each
16.	Die set for bending 20/25mm GI conduits	1 set
17.	Vice with stand	1 set
18.	Good quality Blower with required cable	3 nos.
19.	Big size torch (Kisan torch) with spare cells.	4 nos.
20.	Grinding & cutting machine with spare wheels	1 nos.
21.	Holesaw cutter with each type of adopter – all size	1 set
22.	Hot air blower with required cable	1 no.
23.	Heavy duty Carry bag for tools & tacked for each technician	5 no.



#### 7. ANNEXURE-G

# <u>Schedule of Deviation from Technical Specification and Commercial Terms and Conditions</u>

All the deviations from the terms & conditions of contract shall be filled by BIDDER clause by clause in this schedule.

Sr. No	SECTION	CLAUSE NO	AS PER TENDER DOCUMENT	DEVIATION
COMPANY SEAL				
SIGNATURE				
NAME				
DESIGNATION				
COMPANY				
DATE				

The bidder here by certifies that the above mentioned are the only deviations from OWNER's Tender 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 Tender Document, then the latter shall govern and will be binding on the BIDDER for quoted price.



#### **ANNEXURE-H**

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

(To be submitted on Company's Letter Head)

	on behalf of <u>Name of Party/Company</u> hereby confirm, agree that all the Statutory and Safety Laws and Regulations of the applicable Authority/ies followed for all types of works at the site during the period of the Contract, if awarded to
	Signed and Stamped by the Authorized Signatory Of the Bidder
	ANNEXURE- I  Declaration for Contractual Litigations  (To be submitted on Company's Letter Head)
	Please Tick ( $$ ) whichever is correct option
I /We have	on behalf of <u>Name of Party/Company</u> hereby confirm that I
a.	Not invoked legal recourse e.g. litigation against any Govt, of Gujarat Undertakings / Depts. / Authorities and Govt. of Gujarat supported companies / undertakings / organizations for the last three( 03) years. There are no ongoing/pending legal matter(s) with any of the Govt. of Gujarat Undertakings / GoG supported Companies, including GIPCL.
	Please Tick( )
b.	OR Invoked legal recourse e.g. litigation against any Govt, of Gujarat Undertakings / Depts. / Authorities and Govt. of Gujarat supported companies / undertakings / organizations for the last three( 03) years.
	Please Tick( )
If "b" is applic	cable, please submit the details for the same.
The above is t	rue, as on date, to the best of my knowledge. Any breach/ false statement in this regard

rd shall amount to disqualification of the Bid being submitted herein.

> Signed and Stamped by the Authorized Signatory Of the Bidder



#### **ANNEXURE-J**

# PARTICULARS OF THE BIDDER

Sr. No.	Particulars	Please Provide Information here
1.	Name of Bidder	
2.	a. Registered Office Address:	
	b. Address for Correspondence :	
	c. Email ID	
თ.	Contact Details :  Contact Person Name :  Telephone No. :	
	Mobile No. :	
4.	Year of Establishment	
	PAN No.	
	GST No.	

COMPANY SEAL	SIGNATURE
	NAME
	DESIGNATION
	COMPANY
	DATE



#### **ANNEXURE-K**

#### PROCEDURE FOR MAKING ONLINE PAYMENT OF TENDER FEE

- 1. For making online payment, first go to the website: www.gipcl.com
- 2. Then, click on the caption/link as can see like:

"Click here for Making Online Payment of Advance for Ash, DM water etc." (The link is visible as horizontal highlighted below Tenders - News & Update Section. Can be seen in below screenshot)

- 3. After clicking the link the new page will open. On this page, No need to enter User Name and Password. Directly click on "Payment Form" given below the sign in option.
- 4. After clicking the "Payment Form", the vendor has to enter the details asked which will be self explanatory. It is desired that all the information may be filled correctly so that the payment made can be tracked.

If the some required fields are not known / available, vendor may write "Not Available" and then proceed. E.g. some information like Party code is not available to vendor or GST No. not available with vendor.

**Optional Note:** Although mentioned as above can be proceeded with "Not available", It will be appreciated that regular vendors may obtain the party code from Materials Dept. or Concerned Person, so that the vendor can be identified. The same party code may be used for future transactions also.

After entering the details, click on SUBMIT Button.

- 5. The vendor/Party will be redirected to Payment Gateway. By selecting the desired payment mode, payment can be made:
- 6. After making the payment, the receipt will be generated which has to be shared with Concerned Person of GIPCL.

**Important Note:** Please note that for making online payment through the above gateway, the charges\* as below will be applicable, which has to be borne by Vendor/Party making the Payment:

Payment Mode	Charges
Net Banking	Rs.9 + GST
Debit Card	NIL
Credit Card	0.75% + GST
International Card	3.00% + GST
UPI	NIL



# **CERTIFICATE OF COMPLIANCE BY CONTRACTOR**

Certified that M/s	
awarded BRC / BMC for	for
	at Gujarat Industries Power er Plant, Nani Naroli. I undertake to be bound
	abour (Regulation & Abolition) Act 1970 and
	lition) Rules 1972, The Employees' Provident
	ct 1952, Minimum Wages Act 1948, Payment
	onus Act 1965 and all other applicable labour
	licable to me in respect of the employment of
contract labour by me for the month of	
,	
	For M/s
	A (I ) 10: ( ) (I)
	Authorised Signature with Stamp
Place: Nani Naroli	
Date :	
Bato .	
Through: HoD	
<b>T</b> .	
To,	
AGM (HR&A)	
` '	

# **ETHICS PACT**



#### **GUJARAT INDUSTRIES POWER COMPANY LIMITED**

Reference PO Number	Date :
Integrity Pact No. :	Contract Period

To create an environment where Business Confidence is built through best business practices and is fostered in an atmosphere of trust and respect between providers of goods and services and their users for the benefit of stakeholder, society and the nation.

GIPCL'S COMMITMENT	PARTY'S COMMITMENT
To maintain the highest ethical standards in	Not to bring pressure / recommendation from outside
business and professions	GIPCL to influence its decision.
To ensure maximum transparency to the	Not to use intimidation, threat, inducement or pressure
satisfaction of all stakeholders.	of
	any kind on GIPCL or any of it's employees.
To fulfill the terms of agreement / contract and to	To be prompt and reasonable in fulfilling the contract,
consider objectively the viewpoints of	agreement and legal obligations.
other stakeholders.	
To ensure regular and timely release of	To provide goods and / or services timely as per
payments	agreed
To ensure that no improper demand is made by	To maintain the general discipline in our dealings and
employees or by anyone on our behalf.	transactions.
To give maximum possible assistance to all the	To be truthful and honest in furnishing information.
Vendors / Suppliers / Service Provider and	
others to enable them to complete the works in	
time.	
	Not to divulge to others any information, business
	details about GIPCL made available during the course
	of business relationship without the written consent of
in time.	GIPCL.
To ensure that no hurdles are caused to	Not to enter into cartel / understanding whether formal
vendors /	or informal so as to influence the price.
suppliers / contractors in execution of	

Seal & signature	Seal & Signature
(GIPCL's Authorized Signatory)	(Party's Authorized Signatory)
Name :	Name :
Designation:	Designation