



Maharashtra State Electricity Distribution Company Limited

MAHAL DIVISION

Tender for

Annual Contract for Monthly Meter Reading, Bill printing , Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP , Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers).

Tender No. EE/MHL/DN/Tech/CT-IP Reading/21-22/T-04

VOLUME-1

TECHNICAL BID



Executing Agency

Executive Engineer, Mahal Division.

MSEDCL, NUC, NAGPUR.

Phone: 9607926462

TENDER DETAILS

Tender No.	EE/MHL/DN/Tech/CT-IP Reading/21-22/T-04
Name of the work	Annual Contract for Monthly Meter Reading, Bill printing , Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP , Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers).
Estimated cost of work	Rs. 10.00 Lakh
Tender Fees	Rs. 1000+18% GST=Rs.1180/-
E.M.D. to be paid	Rs. 10,000/- (1% of Estimate Cost)
Download of Tender documents from website	27.01.2022
Date of submission/upload of Tender documents on website	On or before 23.00hrs. of 07.02.2022
Date of opening of Technical Bid	08.02.2022 at 15.00 Hrs. (if possible)
Date of opening of Price Bid	09.02.2022 at 15.00 Hrs. (if possible)
Total No. of pages	70 pages.
Executing Agency	Executive Engineer, MSEDCL, Mahal Division.
Address	Contact person: Shri. S.R. Rathod / Dy.EE. Office of The Exe. Engineer, Old Shukrawari Road Nandanwan Nagpur-440018.
Phone Nos.	9607926462
Fax No.	
E-mail	eemahaldivision@gmail.com
Website	www.mahadiscom.in
Name and Address of Bidder	M/s.
Name of the proprietor/authorized person	
Telephone No	
Fax No.	
Mobile No.	
e-mail	

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MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANYCTD



LETTER TO THE TENDERER

To,

M/s _____

Dear Tenderer,

Please quote the lowest rates for the work specified in the Bid Document for Annual Contract for Monthly Meter Reading, Bill printing, Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP, Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers), nagpur under NUC, NAGPUR. All the documents including cover page should be submitted online duly filled-in and signed by the Tenderer. Rates should be quoted in the Price Bid only. Tenders in any other form or on the letterheads will not be acceptable. If at all, you desire any additional information to be submitted, you may attach separate sheets to the tender documents.

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Executive. Engineer
Mahal Division.

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E-TENDER NOTICE

e-Tenders are invited from experienced Licensed Electrical Contractors for works under Annual Contract for Monthly Meter Reading, Bill printing, Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP, Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers).

1. Tender documents are available **from 27.01.2022 at 00.00 hrs** at our e-Tendering website <https://etender.mahadiscom.in/eatApp/> OR logon to www.mahadiscom.in. The registered Contractors fulfilling conditions of this tender are required to Submit the **e-Tender** duly filled to **be submitted not later than 23:00 hrs. Dt. 07.02.2022**

Tender No.	Description of the Works	Estimated Cost of Works Limited to (Rs. Lakh)	EMD (Rs.)
EE/MHL/DN/Tech/CT-IP Reading/21-22/T-04 Dt. 27.01.2022	Annual Contract for Monthly Meter Reading, Bill printing , Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP , Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers).	10.00 lakh	10,000/-

Tender (Technical Bid) of Tender No T-04 will be opened at 15.00 hrs. on 08.02.2022 if possible

For the tender EMD in the form of Demand draft/Pay order in favour of SENUCL MSEDCCL NON OPT ACCOUNT or pay by cash at the office of The Superintending Engineer, MSEDCCL, "Prakash Bhavan", Link Road, Sadar, Nagpur. (N.B.: Changes take place if any in feature will be available on above website only)

Contact person: Administrative Officer Tel./ Mb. No. 9607926462

Office Address : Office of the Executive Engineer, Old Shukrawari Road Nandanwan Nagpur-440018.

Email : eemahaldiviosion@gmail.com

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SECTION - 1

INSTRUCTIONS TO BIDDERS

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SECTION 1

INSTRUCTIONS TO BIDDERS

A. GENERAL

1. Scope of Bid

- a. The Executing Agency, (also referred to as “the Employer” in these documents) Invites sealed bids from eligible bidders for Annual Contract for Monthly Meter Reading, Bill printing, Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP , Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers).
- b. The works are to be carried out at various sites in the Mahal Division, NUC, Nagpur. All bids shall be prepared and submitted strictly in accordance with these instructions.
- c. The successful bidder is required to start work simultaneously at all the sites covered Under the Sub-Division as per activity schedules annexed separately.
- d. The period of the contract shall be from the date of Letter of Acceptance (LOA up to the Exhaust of the tender amount, Rs. 10 Lakh.
- e. Bid not covering entire scope of the work will be treated as incomplete and hence, is Liable to be rejected.

2. Qualification of the Bidder

This invitation for Bid is open to eligible bidders.

Qualifying Requirements

- 2.1 The bidder shall pay tender fee as mentioned in the tender notice in cash or by way of Demand Draft.
- 2.2 The bidder shall furnish, as a part of his bid, an EMD equivalent to 1% of the estimated tender value in the form of Demand Draft/Pay order or Bank Guarantee. The Demand draft should be drawn on any Nationalized / Scheduled Bank in favour of “SENUC MSEDCL NON OPT ACCOUNT” payable at NAGPUR. In case of Bank Guarantee, the same should be obtained in the favour of “Executive Engineer, Mahal Division, Maharashtra State Electricity Distribution Company Limited” from any Nationalized /Scheduled Bank in the requisite format on Rs. 200/- Stamp Paper as per Sample Form - C enclosed herewith. The bidders submitting fake or invalid Bank Guarantee shall be liable for criminal prosecution.
- 2.3 The bidder should have experience of similar nature (i.e. in the field of taking Meter Reading through CMRI of CT Operated Energy Meters in MSEDCL/any power

utility) **for during last 2 years for at least order value of Rs. 5.00 Lakh per year** (Information provided by the contractor with regards to the qualifying requirements stated in clause No. 2.2 above needs to be supported by satisfactory work completion certificate issued by the office not below rank of Executive Engineer.).

- 2.4 **Valid Electrical contractor's license issued under the act from Maharashtra State.**
- 2.5 **The bidder will have to submit solvency certificate from Nationalized/Scheduled Bank to the extent of 25% of the Tender amount before 6 months period.**
- 2.6 **Registration for GST & Bombay Shop Establishment Act Registration**
- 2.7 **Registration certificates under PF, labour laws as may be applicable as per Relevant acts and ESIC Registration**
- 2.8 **Joint venture (JV) is not applicable to this contract.**
- 2.9 **Meter manufacturers whose meters are installed in MSEDCL or their sister Concerns shall not bid for this activity as MSEDCL intends to analyze the meter data through a third party, with no bias for any manufacturer.**

3. One Bid per Bidder

Each bidder shall submit only one bid for the work by him.

4. Cost of Bidding

The bidder shall bear all costs associated with the preparation and submission of his bid and the Employer will in no case be responsible or liable for those costs.

5. Site Visit

- 5.1 Information about works given in bidding documents is given broadly and may Change during actual work execution.
- 5.2 The Employer will not entertain any claim at any stage from the bidder on the plea of having himself not acquainted sufficiently to the site conditions.

B. BIDDING DOCUMENTS

6. Content of Bidding Documents

- 6.1 The set of bidding documents comprises the documents mentioned below and any Addenda issued in accordance with Clause 8:

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TECHNICAL BID:

- Section 1: Instructions to Bidder
- Section 2: Conditions of Contract.
- Section 3: Detail Scope of work.
- Section 4: Annexure and Schedules.
- Section 5: Sample Forms

PRICE BID:

- Section 6: Price Schedule

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- 6.2 Bidders shall have to submit **online** all the bidding documents before the due date and time, completely filled in and digitally signed as applicable, without deviating from the format and content.
- 6.3 The Bidder is expected to examine all instructions, terms and conditions, forms and specifications in bidding document and fully inform himself as to all the conditions and matters which may in any way affect the works or the cost thereof.
- 6.4 Failure to furnish all information required in the bid document or submission of a bid not substantially responsive to the bidding document in any respect will be at the bidder's risk and may result in the rejection of his bid.

7. Clarification of Bidding Documents

- 7.1 A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing or by cable (hereinafter, "cable" includes telex and Tele-Fax) at the Employer's address indicated in the Invitation for Bid. However, request for such clarification must reach the employer at least 3 days prior to the submission of the bid.
- 7.2 The Employer will respond to any such request for clarification and may forward such clarification to all the purchasers of the bid, if employer finds it necessary to do so without identifying its source.
- 7.3 Request for clarification or any delay in complying with such request by the Employer, shall not in any way affect the obligation on the part of the bidder to send the complete bid by the deadline indicated.

8. Amendment of Bidding Documents

- 8.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addenda.
- 8.2 Any addendum thus issued shall form part of the bidding documents and shall be communicated in writing or by cable to all purchasers of the bidding documents.

Prospective bidders shall acknowledge receipt of each addendum by cable to the Employer.
- 8.3 In order to give prospective bidders reasonable time for preparing their bids on account of the addendum, the Employer may extend the deadline for submission of bids.

C. PREPARATION OF BIDS

9. Language of Bid

All documents relating to the bid shall be in the English language only.

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10. Documents Comprising the Bid

The Bid submitted online by the bidder shall comprise the following.

- a) Bid Form and Qualification Information Form and Documents
- b) Appropriate EMD in Original
- c) Price Schedules.
- d) Information on eligibility and qualification as detailed under Clauses of Section-1 of Technical Bid above be completed and submitted by Bidders in accordance with these instructions.
- e) Technical Bid and Price Bid duly signed on each page.

11. Bid Prices

- 11.1 Unless stated otherwise in the bidding documents, the Contract shall be for the Project defined as “the Works”, as described in Technical Bid.
- 11.2 The bidder shall fill in the rate for all the activities (as per description in the schedule, Specifications) in the Schedules. The price quoted by the Bidder shall be exclusive of all taxes and duties.
- 11.3 Items not indicated in the schedule but are required as part of equipment / work shall also be deemed to have been covered by the rates and prices in the activity schedule.
- 11.4 The Bid price quote rates exclusive of GST, and percentage of the tax should be quoted separately in the offer.
- 11.5 However any statutory variation in Govt. taxes and duties will be borne by the Employer. All statutory taxes and other levies payable by the Contractor under the Contract, or for any other cause, shall be indicated separately in details in the Bid submitted by the bidder. The bid price shall include the cost of charges for obtaining any permit or license.
- 11.6 Payment for newly introduced taxes and statutory variations:
 - 11.6.1 100% payment towards newly introduced taxes, duties and statutory variations, subsequent to the date of submission of the bid, by the Central or the State Government shall be reimbursed to the contractor only against due documentary proof.
 - 11.6.2 However, in case of reduction/abolition of any taxes, duties, levies, cess, etc. by the Central or State Government during the currency of contract, the benefit of the same shall be passed on to the employer.
- 11.7 As regards Indian Income Tax, surcharge on Income Tax and any other Corporate Tax, the Employer shall not bear any tax liability whatsoever irrespective of the mode of contracting. The bidder shall be liable and responsible for payment of such taxes, if attracted under the provisions of

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Indian law. However IT deductions at source as per Income Tax rules will be made.

11.8 TDS towards all the applicable taxes shall be deducted, from the payment of contract value as per the rate applicable.

11.9 Relevant provisions under Indian laws / Acts for P.F., Labour Contract, and any other Law/ Act as may be applicable to the works under this contract will be applicable though not mentioned specifically in above list.

11.10 The contract is to be treated as a non-divisible contract, which includes all applicable taxes, duties, etc as indicated above.

11.11 The Bid price quoted by the Bidder shall be firm.

12. Price Variation Clause

Not applicable to this contract.

13. Currencies of Bid and Payment

The price for the project shall be quoted by the Bidder entirely in Indian Rupees only.

14. Bid Validity

Bids shall remain valid for a period of **90 days** after the deadline for bid submission specified in Clause 17.1.

15. EMD

15.1 The bidder shall furnish, as a part of his bid, an EMD equivalent to 1% of the estimated tender value in the form of Demand Draft/Pay order or Bank Guarantee. The Demand draft should be drawn on any Nationalized/Scheduled Bank having branch at Nagpur in favour of "SENUC MSEDCL NON OPT ACCOUNT" payable at Nagpur. In case of Bank Guarantee, the same should be obtained in the favour of "Maharashtra State Electricity Distribution Company Limited" from any Nationalised/Scheduled Bank in the requisite format as per Sample Form - C enclosed herewith.

15.2 Any bid not accompanied by an original Bid Form and adequate EMD with correct bid reference in original shall be rejected by the Employer. The bid shall also be rejected if the bidder does not comply with the provisions of clause 15.1 and 15.2 above.

15.3 The EMD of unsuccessful bidders will be refunded as soon as the Contract is finalized.

15.4 The EMD of the successful bidder will be discharged when the bidder has signed the Contract Agreement and furnished the required performance security.

15.5 The Bank Guarantee towards EMD shall be kept valid for a period up

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to and including 30 days after the deadline of bid validity.



15.6 The EMD will be forfeited in case of any of the following:-

- a) If the bidder withdraws his bid during the period of bid validity;
- b) If the bidder does not accept the correction of his bid price pursuant to Clause no. 23;
- c) If the successful bidder fails within the specified time limit to-
 - i) Sign the Contract Agreement;
 - ii) Furnish the required performance security;

16. Alternative Proposals by Bidders

Bidders shall submit offers, which comply with the requirements of the bidding documents, including the basic technical design. **Alternative proposals shall not be considered.**

D. SUBMISSION OF BIDS

16.1 Bid shall be submitted online in two folders containing documents stated below:

Folder-I (Technical Bid) EMD (Sample Form C), Bid form (Sample Form A), copy of the receipt of the purchase of the bid, Authorization in favour of the signatory, including other relevant authorization signature as required under the bid document. Sample form 'B' & qualification requirement mentioned in bidding documents.

Folder-II (Commercial): This folder should contain only price bid.

16.2 Duly filled and attested Technical and Price Bids along with necessary documents/certificates shall be uploaded on our website www.mahadiscom.in before the due date and time for submission.

To avoid hurry at last moment and difficulty/problem in uploading the tender documents on website, tenderers are requested to complete the process well in advance.

17. Deadline for Submission of Bids

17.1 Bid will be received online by the Employer on or before last date of submission.

17.2 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 8. The Employer also reserves the right to extend the bid submission date without assigning any reason. In such case(s) all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

18. Modification and Withdrawal of Bids.

- 18.1 The bidder may modify or withdraw his bid by giving notice in writing before the deadline prescribed in Clause 19.
- 18.2 No bid shall be permitted to be modified after the deadline for submission of bids.
- 18.3 Withdrawal of a bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in the Form of Bid will result in the forfeiture of the EMD pursuant to Clause 15.6.

E. BID OPENING AND EVALUATION

19. Bid Opening

- 19.1 The Employer will open the Technical Bid, including its modifications made pursuant to Clause 18, as notified in the tender notice. The bidder's representatives shall sign a register evidencing their attendance.
- 19.2 The Employer will examine the documents under Technical Bid in accordance with the requirements of the bid document. If any of the documents under Technical Bid is found to be not complying with the requirement of the bid document, the bid will be considered as non-responsive & Price Bid of the corresponding bid will not be opened for further evaluation.
- 19.3 Date and time of opening of Price Bid will be informed to the bidders later on.

20. Process to be Confidential

Information relating to the examination, clarification, evaluation and comparison of bid and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful bidder has been announced. Any effort by a bidder to influence the Employer's processing of bids or award decisions shall result in the rejection of his bid.

21. Clarification of Bids.

To assist in the examination, evaluation and comparison of bids the Employer may, at his discretion, ask any bidder for clarification of his bid, including breakdown of the prices in the Activity Schedules. The request for clarification and the response shall be in writing or by cable, but no change in price or substance of the bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids.

22. Examination of Bids and Determination of Substantial Responsiveness.

- 22.1 Prior to the detailed evaluation of bids, the Employer will determine whether each bid (a) Meets the eligibility criteria (b) has been properly signed; (c) is accompanied by the required securities; (d) is substantially responsive to the requirements of the bidding documents; and (e) provides any clarification and/or substantiation that the Employer may require.
- 22.2 A substantially responsive bid is one, which conforms to all the terms, conditions, and specifications of the bidding documents, without

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deviation or reservation. A deviation or reservation is one (a) which affects in any substantial way the scope, quality of performance of the Works; (b) which limits in any substantial way, inconsistent with the bidding documents, the Employer's rights 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.

- 22.3 If a bid is not substantially responsive, it will be rejected by the Employer and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

23. Correction of Errors

23.1 Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. The Employer will correct errors as follows: where there is a discrepancy between the amounts in figures and in words, the amount whichever is lower shall govern.

23.2 The amount stated in the Form of Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount of bid, his bid shall be rejected and the EMD will be forfeited in accordance with Sub-clause 15.6.

24. Prohibition for Post tender Correspondence.

24.1 The Bidder should note that no correspondence shall be entertained or considered after the due date and time of submission of tender unless otherwise sought by the Employer.

24.2 The bids shall be deemed to be under consideration immediately after those are opened and until such time official intimation of award / rejection is made by the Employer to the bidders. While the bids are under consideration, bidders and/or their representatives or other interested parties are advised to refrain from contacting by any means, the Employer and / or his employees / representatives on matters related to the bid under consideration. The Employer if necessary shall obtain clarifications on the bid by requesting for such information from any or all bidders in writing as may be necessary.

F. AWARD OF CONTRACT

25. Award Criteria

Subject to Clause 26, the Employer will award the Contract to the bidder whose bid has been determined to be substantially responsive to the bidding documents and who has offered the Lowest Evaluated Bid Price, provided that such bidder has been determined a) to be eligible in accordance with provisions of Clause 2,

26. Employer's right to accept or reject, any or All Bid(s)

- 26.1 Notwithstanding Clause 25, the Employer reserves the right to accept or reject any or all bid(s), and 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 on the grounds for the Employer's action.
- 26.2 The Employer does not bind himself to accept the lowest or any bid, neither will any reason be assigned for the rejection or part of bid. It is also not binding on the Employer to disclose any analysis report on bids.

27. Notification of Award

- 27.1 Prior to the expiration of bid validity prescribed by the Employer, the Employer will notify the successful bidder by cable confirmed by registered letter that his bid has been accepted. This letter would be as per the format "D". This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") shall name the sum, which the Employer will pay the Contractor in consideration of the execution of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price"). Such letter of Acceptance will be deemed to have been accepted if not otherwise specifically acknowledged by the Contractor within 7 days from date of receipt.
- 27.2 The notification of the award will constitute the formation of the Contract subject only to the furnishing of a performance security in accordance with the provisions of Clause 28 and signing of agreement.
- 27.3 The successful Bidder shall execute contract agreement as per the format "E" attached.
- 27.4 Upon furnishing by the successful bidder of a performance security, the Employer will promptly notify the other bidders that their bids have been unsuccessful.

28. Performance Security

- 28.1 Within 7 calendar days of receipt of the Letter of Acceptance from the Employer, the successful bidder shall furnish to the Employer a performance security as per Form F in the form of a Bank Guarantee for an amount equivalent to Five percent (5 %) of the Contract Price.
- 28.2 The performance security is to be provided by the successful bidder in the form a Bank Guarantee in prescribed format on Rs. 200/- Stamp paper issued by a Nationalized/Scheduled Bank having branch in Nagpur.
- 28.3 Failure of the successful bidder to comply with the requirements of Sub-Clause 28.1 & 28.2 shall constitute sufficient grounds for cancellation of the award and forfeiture of the EMD.

29. Contract Agreement

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In the event of acceptance of particular bid for award of Contract, such successful bidder has to execute Contract Agreement as per attached Form E.

30. Time: The Essence of Contract

- 30.1 The time stipulated in the contract for the completion of works shall be deemed to be the essence of the contract. The Contractor shall so organize his resources and perform his work as to complete it not later than the date agreed to.
- 30.2 The Contract Agreement should be executed within 7 days from date of issue of LOA. The date of signing of contract agreement is the **start date**.
- 30.3 This work should be completed within time limit as per reading program given by concerned SE or his representative.

31. Bankruptcy

If the Contractor shall become Bankrupt or insolvent, or have a receiving order made against him, or compound with his creditors, or being a company or corporation commence to be wound up, not being a member's voluntary winding up for the purpose of amalgamation or reconstruction, or carry on its business under a receiver for the benefit of its creditors or any of them, the Employer shall be at liberty (a) to terminate the contract forthwith by notice in writing to the Contractor or to the receiver or liquidator or to any person in whom the contract may become vested or (b) to give such receiver, liquidator or other person the option of carrying out the contract subject to his providing a guarantee for the due and faithful performance of the contract up to amount agreed.

32. Notices

- 32.1 Any notice to be given to the Contractor under the terms of the contract shall be served by sending the same by registered post or leaving the same at the Contractor's principal place of business (or in the event of Contractor being a company to or at its registered office.)
- 32.2 Any notice to be given to the Employer under the terms of the Contract shall be served by sending the same by registered post at the Employer's address.

33. Details: Confidential

The Contractor shall treat the contract and everything contained therein as private and confidential. In particular, the Contractor shall not publish any information, drawings or photograph concerning the works and shall not use the sites for the purpose of advertising except with written consent of the Executive Engineer, MSEDCL, Mahal Division, Mahal and subject to terms and conditions as he may prescribe.

34. Check List

The bidder shall give a checklist of documents/schedules enclosed with his Bid in the

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covering pages(s) for respective parts for quick check of the enclosures. It shall be construed that the Bidder shall comply completely with all the other requirements of the specification.

35. Jurisdiction

Any disputes or differences arising under, out of or in connection with this tender or contract if not concluded shall be subject to exclusive jurisdiction of courts in Nagpur city of Maharashtra State. The Indian Laws shall govern the contract.

SECTION - 2

CONDITIONS OF CONTRACT

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SECTION 2
CONDITIONS OF CONTRACT

A. GENERAL

1. Definitions

1.1 Abbreviations

MSEDCL-Maharashtra State Electricity Distribution Co. Ltd. **CE**-Chief Engineer, MSEDCL.
SE-Superintending Engineer, NU NAGPUR
CIRCLE. EE-Executive Engineer
SDO- ADD. EXE. ENGG or Dy. Executive Engineer or Assistant Engineer of Sub-Dn. **CMRI**-Common Meter Reading Instrument
BG-Bank Guarantee
EMD-Earnest Money Deposit
SD-Security Deposit
LOA-Letter of Acceptance

1.2 Acceptance date is the date when the Employer accepts the bid of the successful bidder by issuing a Letter of Acceptance.

1.3 The Activity Schedule is a schedule of the activities as defined in the bid document for the work of Annual Contract for Monthly Meter Reading, Bill printing, Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP, Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers). Quantities mentioned in this schedule are approximate and may vary on either side due to release of new connections or disconnection of existing consumers.

1.4 The period of Contract is the period of 6 months from the date of start or the order amount limit whichever is earlier. Only the Employer may revise the contract period by issuing, in writing, an extension to the contract for a further period of 6 months, if agreed by the contractor.

1.5 The Contract is the contract between the Employer and the Contractor, the terms and conditions of which have been incorporated in the agreement to be executed between the two parties.

1.6 The Contract Data defines the documents and other information, which comprise the Contract.

1.7 The Contractor is the bidder whose bid to carry out the Works has been accepted by the Employer and includes his legal heirs, successors, assignees.

1.8 The Contractor's Bid is the complete bidding document submitted by the Contractor to the Employer.

1.9 The Contract Price is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the contract.

1.10 Days are calendar days & **Months** are calendar months as per English Calendar.

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1.11 The Employer is the Executive Engineer, Mahal Division, Maharashtra State Electricity Distribution Company LTd. (MSEDCL), Mahal , who will have the necessary authority to get the project executed and be responsible to handle all affairs of the project including award of contract to the Contractor and include any person(s) authorized for the purpose by him.

1.12 The Engineer is the person of the organization named in the Contract Data or any other competent person authorized by the Employer and notified to the Contractor, for effective implementation of the project.

1.13 The Site(s) is/are the area (s) defined as such in the Contract Data for execution of works.

1.14 The start Date is the date of execution of Contract Agreement.

1.15 Specifications mean and include collectively all the terms and stipulations contained in the bid document including the conditions of contract, Technical Provisions and Annexure thereto and list of correction and amendments.

1.16 The works means Annual Contract for Monthly Meter Reading, Bill printing , Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP , Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers).

2. Interpretation

In interpreting these Conditions of Contract, singular also means plural, male also means female, and vices versa. Headings and cross-references between clauses have no significance. Words have their normal meaning under the language of the Contract unless specifically defined.

3. Language and law.

The language of the Contract shall be English. The law governing the Contract shall be the Indian Laws as stated in the Contract Data.

4. Decisions

The Employer shall decide contractual matters between the Employer and the Contractor fairly and impartially. The decision of the Employer will be final, Conclusive and binding on both parties to the agreement for contract.

5. Delegation

The Employer may delegate any of his duties and responsibilities to other people by notifying the Contractor and may even cancel/withdraw any such delegation by notifying to the Contractor.

6. Communications

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Communications between parties that are referred to in the conditions are effective, only when they are in writing.

7. Assignment and Subletting of Contract

- 7.1 The Contractor shall not assign the Contract or any part thereof or any benefit or Interest therein or there under without the prior written consent of the Employer.
- 7.2 The Contractor shall not sublet any part of the works without prior written consent of the Employer.
- 7.3 Such consent, if given, shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of any subcontractor, his agents, servants or workmen as fully as if those were the acts, defaults, neglects of the Contractor, his agents, servants or workmen.
- 7.4 The engineer shall have the right to obtain from the Contractor any agreement in writing entered into by the Contractor with any of his sub-Contractors or any purchase orders placed for supplies and services in respect of the works included in the Contract provided that the Contractor shall not be bound to disclose the sub Contract value. The Contractor shall supply the engineer with full technical and commercial details of orders placed on his sub Contractors. The technical specification of all the items ordered on sub-Contractor shall be subject to the approval of engineer.

8. Co-ordination with Other Contractors

The Contractor is to co-operate and share the Site with public authorities, utilities, and the Employer.

9. Personnel

- 9.1 The Contractor may employ either the key personnel named in the Schedule of Key Personnel to carry out the functions stated in the Schedule or other personnel approved by the Employer. The Employer will approve proposed replacement key personnel only if their qualifications, abilities and relevant experience are equal or better than those of the personnel listed in the Schedule, without affecting the Contract Price.
- 9.2 If the Employer asks the Contractor to remove a person who is a member of Contractor staff or work force and states the reasons, the Contractor shall ensure that the person leaves the Site immediately and in any case within seven days and such person will have no further connection with the work in the Contract.

10. First Aid

To deal with emergencies at the work-site, the contractor shall make all such arrangements necessary such as availability of first aid kits, services of an ambulance, etc. or arrangement for transportation to hospital at his own cost.

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11. Contractor's Risks

All risks of loss or damage to physical property and of personal injury and death, which arise during and in consequence of the performance of the Contract, are the responsibility of the Contractor.

12. Force Majeure

Force majeure is herein defined as any cause, which is beyond the control of the Contractor or MSEDCL as the case may be, which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affects the performance of the contract, which includes the following:

- Natural Calamity including but not limited to flood, drought, earthquake, epidemics, volcanic activities, typhoon or cyclone, hurricane and nuclear disaster;
- The Contractor or the MSEDCL shall not be liable for delay in performing their respective obligations resulting from any force majeure cause as referred to and/or defined above, the date of completion shall be extended by a reasonable time even though such cause may occur after the Contractors performance of his obligations has been delayed for other causes.

13. Insurance

13.1 The following insurance cover is to be provided by the Contractor in the joint names of the Employer and the Contractor for the period from the Start Date to the end of the Defects Notice Period or of the last Defects Correction Period whichever is the later.

- a) Full cover against damage to other people's property caused by the Contractor's acts or omissions.
- b) Covered against death or injury caused by the Contractor's acts or omissions as per laws applicable in India to
 - (i) Anyone authorized to be on the Site.
 - (ii) Third parties who are not authorized on the Site.
- c) Full cover against theft and damages to the Works and materials during storage and construction.
- d) Contractor shall pursue the matters related to insurance claims in association with the Employer.
- e) Policies and certificates for insurance are to be produced by the Contractor to the Employer for approval before the Start Date given in the Contract document and subsequently as the Employer may require.

- f) Alterations to the terms of insurance may be made either with the approval of the Employer or as a result of general changes imposed by the Insurance Company with which the insurance policy is effected.

13.2 Both parties shall comply with the conditions of the Insurance policies.

13.3 The Contractor at his cost shall arrange, secure and maintain comprehensive insurance as may be necessary and for all such amounts to protect his interests and the interest of the Employer, against all risks. Any loss or damage to the equipment, during supply, handling, transporting, storage and erection, till such time the plant is commissioned by the Contractor and accepted by the Employer shall be to the account of the Contractor. The Contractor shall be responsible for lodging of all claims and make good for the damage or loss by way of repairs and/or replacement of the portion of the works damaged or lost. The transfer of title shall not in any way relieve the Contractor of the above responsibilities during the period of the Contract.

13.4 INDEMNIFICATION OF EMPLOYER

13.4.1 The Contractor shall insure all his personnel, tools and plants, etc. and shall also take a third party liability cover to indemnify the Employer of all liabilities which may come up due to any act or omission on the part of Contractor and cause harm/damage to other Contractor/ representatives of Employer or all or anybody rendering service to the Employer or is connected with Employer's work in any manner whatsoever.

13.4.2 The Contractor shall necessarily indemnify the Employer in all these respects and the indemnification and insurance policy shall be to the approval of Engineer.

13.5. WORKMEN'S COMPENSATION INSURANCE

This insurance shall protect the Contractor against all claims applicable under the workmen's compensation Act 1948 or any amendment thereof. This policy shall also cover the Contractor against claims for injury, disability, disease or death of his or his sub-Contractor's employees, which for any reason are not covered under the workmen's compensation Act 1948. The liabilities shall not be less than workmen's Compensation as per statutory provisions.

13.6. COMPREHENSIVE AUTOMOBILE INSURANCE

This insurance shall in such a form to protect the Contractor against all claims for injuries, disability, diseases and death of members of public including the Employer's men and damage to the property of others arising from the use of motor vehicle during, on or off the site operations, irrespective of the Ownership of such vehicles.

13.7. COMPREHENSIVE GENERAL LIABILITY INSURANCE

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13.7.1 This insurance shall protect the Contractor against all claims arising from injuries, disabilities, disease or death of members of public or damage to property of others, due to any act or omission on the part of the Contractor, his agents, his employees, his representatives and sub-Contractors or from riots, strikes and civil commotion. This insurance shall also cover all the liabilities of the Contractor for defending litigations, whether criminal, civil or both.

13.7.2 The hazards to be covered will pertain to all the areas and works which the Contractor, his sub-Contractors, his agents and his employees have to perform pursuant to the Contract.

13.7.3 The above are only illustrative list of insurance covers normally required and it will be the responsibility of the Contractor to maintain all necessary insurance coverage to the extent both in time and amount to take care of all his liabilities either direct or indirect.

14. Site Investigation Data

It is presumed that the Contractor, in preparing his Bid, has relied on the Site Investigation Data collected & verified by him from his own source.

15. Queries about the Contract Data

The Employer shall give instructions clarifying queries about the Contract Data.

16. Deduction from total contract price

The employer shall claim all costs, damages or expenses that the owner may have paid, for which under the contract the contractor is liable. The employer to the contractor shall bill all such claims regularly as and when they fall due. Such bills shall be supported by appropriate documents or explanations, to enable the contractor to properly identify such claims. Such claims shall be paid by the contractor within 15 (fifteen) days of the receipt of the corresponding bills and if not paid by the contractor within the said period, the employer may then deduct the amount from any monies due or becoming due by him to the contractor under his contract or any other contract. The amounts may be recovered by the action of law or otherwise, if the contractor fails to satisfy the employer of such claims.

17. The Works to be completed by the Completion Date

The Contractor shall begin the Works on the Start Date and is to carry out the Works in accordance with the program given by concerned EE or his representative.

18. Safety

18.1 Works and Safety Regulations:

18.1.1 The Contractor shall ensure the safety of all the workmen, materials and equipment either belonging to him or belonging to others working at site. Contractor is expected to observe all the safety rules and regulations enacted as per laws applicable.

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18.2 Electrical Safety Regulations:

18.2.1. The work shall be carried out on safely on equipment at site. The contractor must make arrangement to provide safety devices/T&P/ equipments/ as per standard and practices to his persons engaged on the work of meter reading.

18.2.2 The Contractor shall employ the necessary/sufficient number of qualified full persons/supervisors along with required quantity of CMRI and other equipments as required for work.

19. Arbitration

19.1 The matters to be determined by the Executive Engineer (E.E.):-

All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the contractor to the E.E. and the E.E. shall (within 120 days) after receipt of the contractor's representation make and notify decisions of all matters referred to by the contractor in writing.

- (i) **Demand for Arbitration:** In the event of any dispute or difference between the parties hereto as to the construction or operation of this contract, or the respective rights and liabilities of the parties on any matter in question, the dispute or difference on any account or as to the withholding by MSEDCL of any certificate to which the contractor may claim to be entitled to, or if the E.E. fails to make a decision within 90 days then and in any such case the contractor after 90 days but within 120 days of his presenting his final claim on disputed matters, shall demand in writing that the dispute or difference to be referred to arbitration. Such a demand shall be made to the Superintending Engineer concerned.
- (ii) The demand for arbitration shall specify the matters which are in question, or subject of the dispute or difference as also the amount of claim item-wise. Only such dispute(s) or difference(s) in respect of which the demand has been made, together with counter claims or set off shall be referred to arbitration and other matters shall not be included in the reference.
 - (a) The arbitration proceedings shall be assumed to have commenced from the day, a written and valid demand for arbitration is received by the MSEDCL.
 - (b) The claimant shall submit his claim stating the facts supporting the claims along with all relevant documents and the relief or remedy sought against each claim within a period of 30 days

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from the date of appointment of the Arbitral Tribunal.

(c) The MSEDCL shall submit its defense statement and counter claim(s), if any, within a period of 60 days of receipt of copy of claims from the Tribunal thereafter unless otherwise extension has been granted by the Tribunal.

- (iii) No new claim shall be added during the proceedings by either party. However a party may amend or supplement the original claim or defense thereof during the course of arbitration proceedings subject to acceptance by Tribunal having due regard to the delay in making it.
- (iv) If the contractor(s) does/do not prefer his/their specific and final claims in writing, within a period of 90 days of receiving the intimation from the MSEDCL, that the final bill is ready for payment, he/they will be deemed to have waived his/their claim(s) and the MSEDCL shall be discharged and released of all liabilities under the contract in respect of these claims.

19.2 Obligation during pendency of Arbitration:

Work under the contract shall, unless otherwise directed by the Engineer, continue during the arbitration proceedings, and no payment due or payable by the MSEDCL shall be withheld on account of such proceedings, provided, however, it shall be open for Arbitral Tribunal to consider and decide whether or not such work should be continued during arbitration proceedings.

- (i) In cases where the total value of all claims in question added together does not exceed Rs.1,00,00,000/- (Rupees One Crore) the Arbitral Tribunal shall consist of a Sole Arbitrator who shall be either the C.E. of the MSEDCL or serving or retired officer of the MSEDCL/Government not below the grade of C.E. or equivalent nominated by the Managing Director of the MSEDCL in that behalf. The Sole Arbitrator shall be appointed within 60 days from the day when a written and valid demand for arbitration is received by the MSEDCL.
- (ii) In cases the value of the claim exceeds Rs.1,00,00,000/- (Rupees One Crore) as above, the Arbitral Tribunal shall consist of panel of 3 serving or retired officers of MSEDCL/Govt. not below the grade of C.E./General Manager (F&A) as the Arbitrators. For this purpose, the MSEDCL will send a panel of more than 3 names of arbitrators of one or more department of the MSEB/MSEDCL/Govt. to the contractor who will be asked to suggest to the Managing Director at least 2 names for appointment as contractor's nominee. The Managing Director shall appoint at least one of them as the contractor's nominee and will also appoint the remaining arbitrators either from the panel or from outside the panel, duly indicating the presiding arbitrator from amongst the three (3) arbitrators so appointed. While nominating arbitrators, it will be necessary to ensure that one of them is or has worked in Accounts

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department.

- (iii)** If one or more arbitrators appointed as above refuses to act as arbitrator, withdraws from his office as arbitrator or vacates his/their office/offices or is/are unable or unwilling to perform his functions as arbitrator for any reason whatsoever or dies or in the opinion of the Managing Director fails to act without undue delay, the Managing Director shall appoint new arbitrators to act in his/their place in the same manner in which the earlier arbitrator/s had been appointed. Such reconstituted Tribunal, may, as its discretion proceed with the reference from the stage at which it was left by the previous arbitrator(s).
- (iv)** The Tribunal shall have powers to call for such evidence by way of affidavits or otherwise as the Arbitral Tribunal shall think proper, and it shall be the duty of the parties hereto to do or cause to be done all such things as may be necessary to enable the Arbitral Tribunal to make the award without any delay.
- (v)** While appointing arbitrator(s) as above, due care shall be taken that he/they is/are not the one/those who had an opportunity to deal with the matters to which the contract relates or who in the course of his/their duties as MSEDCL's servant(s) expressed views on all or any of the matters under dispute or differences. The proceedings or the Arbitral Tribunal or the award made by such Tribunal will, however, not be invalid merely for the reason that one or more arbitrator had, in the course of his service, opportunity to deal with the matters to which the contract relates or who in the course of his/their duties expressed views on all or any of the matters under dispute.
- (vi)** Arbitral award shall state item-wise, the sum and reasons upon which it is based.
- (vii)** A party may apply for corrections of any computational errors, any typographical or clerical errors or any other error of similar nature occurring in the award and interpretation of specific point of award to tribunal within 30 days of receipt of the award.
- (viii)** A party may apply to Tribunal within 30 days of receipt of award to make an additional award as to claims presented in the arbitral proceedings, but omitted from the arbitral award.
- (ix)** In case of the Tribunal, comprising of three members any ruling or award shall be made by a majority of Members of Tribunal. In the absence of such a majority, the views of the Presiding Arbitrator shall prevail.
- (x)** Where the arbitral award is for payment of money, no interest shall be payable on whole or any part of the money for any period till the date on which the award is made.
- (xi)** The cost of the arbitration shall be borne equally by the respective parties.

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The cost shall inter-alia include fees of the arbitrators as per the rates fixed by the MSEDCL from time to time. Provided that the fees payable per arbitrator for claims up to Rs. One Crore shall not exceed Rs.2000/- per sitting subject to a maximum of Rs. 25,000/- and the fees payable per arbitrator for claims over Rs. One Crore, shall not exceed Rs.2000/- per sitting subject to a maximum of Rs.50,000/-. Provided further that the arbitrators who are in service of Govt./MSEDCL shall draw fees at half of the rates mentioned above.

- (xii) MSEDCL shall maintain a list of arbitrators. The Managing Director shall have full powers to delete or add the name of the arbitrators in the list or to make amendments to the said list as per his discretion.
- (xiii) The arbitral proceedings should be completed and the award be finalized within one year from the date of appointment of arbitrators.
- (xiv) The decision of the sole arbitrator or arbitral tribunal as the case may be, shall be final and binding on the parties.

19.3 Disputes

Any disputes or differences arising under, out of or in connection with this tender or contract if not concluded shall be subject to exclusive jurisdiction of courts in Nagpur city of Maharashtra State. The Indian Laws shall govern the contract.

20. Management Meetings

- 20.1 Project Review co-ordination meetings between Employer & M/s_____ shall be conducted as and when required by the Employer to review the progress of the work and to deal with matters raised in accordance with the early warning procedure.
- 20.2 The Employer shall record the business of management meetings and is to provide copies of his record to those attending the meeting. The responsibility of the parties for actions to be taken is to be decided by the Executive Engineer either at the management meeting or after the management meeting and stated in writing to all attended the meeting.

21. Early Warning

- 21.1 The Contractor shall warn the Employer at the earliest opportunity of specific likely failure events or circumstances, which may adversely affect the work of meter reading.
- 21.2 The Contractor shall co-operate with the Employer in formulating proposals for avoiding occurrence of such events or circumstances or at least reducing the effect of the same.

D. COST CONTROL

22. Activity Schedule

The Contractor is to produce an updated Activity Schedule within 15 days of being

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instructed by the Employer. The activities on the Activity Schedule are to be co-ordinate with the activities of the program.

23. Changes in the Activity Schedule

The Contractor may amend the schedule of activity to accommodate changes of program or method of working made at his own discretion subject to condition that Price in the Activity Schedule and completion date is not altered. When the Contractor makes such changes to the Activity Schedule it is required to inform in writing such changes/amendments to Employer before actually putting in practice.

24. Submission of Bills

At the end of the every month, the contractor should submit a bill in triplicate duly quoted with PAN, VAT, Service tax Registration No. on the bill to the concerned Executive Engineer of the Division for recording in Measurement Books along with signature of the concerned S.D.O. or his representative on the IT Data Challan.

25. Payment Terms

- 25.1 All payment due to the Contractor shall be paid only by 'Account Payee' cheque by the concerned Executive Engineer of the division.
- 25.2 The employer shall make progressive payments as and when they are due as per the payment schedule. The invoices along with the documents listed in the relevant clauses of terms of payment shall be submitted by the contractor to the Executive Engineer of concerned Division and same shall be verified and payments shall be released by Executive Engineer, MSEDCL, Nagpur .
- 25.3 Advance payment is not applicable to this contract.
- 25.4 The measurement entered in "ERP (SAP)" and bills prepared shall be signed and dated by both the contracting parties.
- 25.5 The Contractor shall be directly responsible for payment of wages to his workmen.
- 25.6 The Executive Engineer, Mahal Division, MSEDCL, Nagpur or a person(s) duly authorized by him may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
- 25.7 It has to be noted that all the interim and final payments to the contractors would be made after necessary certification by the concerned EE.

26. Liquidated Damages

- 26.1 If the Contractor fails to complete all the works within the time limit as per program given by the MSEDCL officer, the Employer shall levy liquidated damages as below for breach of contract without prejudice to any other rights and /or remedies provided in the contract.

i) If the reading program is delayed than the specified date given by the

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- Concerned EE or his representative penalty @ Rs. 1000/- per PC.
- ii) If the bill is not distributed to the consumer within time limit, penalty @ Rs. 50/- per bill.
 - iii) If reading is not taken, penalty @ twice the rate for meter reading. (not applicable for lock status of consumer)
 - iv) If data is not retrieved due to any reason, payment @ 1/3rd of the rate given will be made.

26.2 The deduction of any sum under the provision of this clause shall not relieve the contractor from his obligation to complete the work in time or from his other obligations under the contract.

27. Performance Security in lieu of Security Deposit:

- 27.1 Within 15 calendar days of receipt of the Letter of award from the Employer, the successful bidder shall furnish to the Employer a performance security as per Form F in the form of a Bank Guarantee for an amount equivalent to Five percent (5 %) of the Contract Price.
- 27.2 The performance security is to be provided by the successful bidder in the form of Bank Guarantee issued by a Nationalized/Scheduled Bank having branch in Nagpur .
- 27.3 Failure of the successful bidder to comply with the requirements of Sub-Clause 27.1 & 27.2 shall constitute sufficient grounds for cancellation of the award and forfeiture of the EMD.
- 27.4 The performance security will be released by the Employer after the satisfactory completion of the order.
- 27.5 The Employer is to notify the Contractor of any claim made against the Bank Guarantee.
- 27.6 The Employer may adjust against the Bank Guarantee, any claim, of MSEDCL.
- 27.7 The Employer is not liable to pay any interest or compensation to the Contractor for retaining the performance Guarantee after the end of the guarantee period.
- 27.8 Termination of contract due to contractor's default mentioned in this agreement or variation in the scope of work shall not entitle the Contractor to reduce the value of the performance guarantee nor the time thereof. The performance guarantee shall be valid for the full value and for the full period of Contract and further for 6 months.
- 27.9 The Performance Security will be forfeited in case of following:
- i) If, Contractor does not commence the work.
 - ii) If the Contractor does not follow the stipulated Time schedule.
 - iii) If the contract is terminated due to the reasons attributable to the Contractor.
 - iv) If the contractor does not carry out the work up to mark of satisfaction in the opinion of the employer or his representative as per order conditions.

28. Cost of Repairs:

Loss or damage to the any equipment/material/structure/property of MSEDCL during

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the work due to negligence of contractor or his persons during the Contract period is to the Contractor's Account.

29. Termination

29.1 The Employer may terminate the Contract by giving 30 (thirty) days prior written notice to the Contractor on review of performance of the Contractor by the Employer, the Employer is not satisfied with the performance of the Contractor.

29.2 The Employer may upon written notice of Contractor's default, terminate the contract in the circumstance detailed hereunder.

29.3 If, in the opinion of the Employer, the Contractor fails to make completion of works within the time specified in the contract agreement or within the extended period granted by the Employer.

29.4 If, in the opinion of the Employer, the Contractor fails to comply with any of the other provision of the contract including technical requirement, statutory provisions etc.

29.5 In the event the Employer terminates the contract in whole or in part as provided above, the Employer reserves the right to get the work executed as deemed by the Employer to be similar to the one contracted for, upon such terms and in such manner as the Employer may deem proper and the Contractor shall be liable to the Employer for any additional cost for execution and completion of such works.

29.6 If the Contract is terminated, the Contractor shall stop work immediately.

30. Payment upon Termination

30.1 If the Contract is terminated because of a breach of Contract by the Contractor, the Employer is to issue a certificate for the value of the work done and material ordered less payments received up to the date of the issue of the certificate and less the percentage of the value of the work not completed. Liquidated Damages do not apply and Employer has a right to claim for loss and damages in respect of any delay incurred arising from the Breach. If the total amount due to the Employer exceeds any payment due to the Contractor the difference shall be a debt payable to the Employer.

30.2 If the Contract is terminated at the Employer's convenience or because of breach of Contract by the Employer, the Employer is to issue a certificate for the value of the work done, materials ordered, the reasonable cost of removal of equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate.

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SECTION-3

DETAIL SCOPE OF WORK

SECTION-3

DETAIL SCOPE OF WORK

1. Objective

Executive Engineer, Maharashtra State Electricity Distribution Limited (MSEDCL), Mahal Division intends to carry out the following activities of Annual Contract for Monthly Meter Reading, Bill printing, Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP, Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers)).

One Time Survey of only newly connected consumers.

- a) Monthly downloading of meter data & bill printing & Bill Distribution of CT category consumers and above 20 kw load Category consumer through Common Meter Reading Instrument (CMRI), extracting the billing parameters and integrating the same in prescribed format in the billing server of MSEDCL.
- b) Analysis of Load .Survey Data, Tamper Events, Billing & Instantaneous Parameters using tested and foolproof Analysis software tools, and submit various analysis and exception reports to concerned S.D.O.and Executive Engineer in soft as well as hard copy as detailed out in the technical specification within 7 days from submission of billing data to IT Section. This analysis will facilitate the MSEDCL in improving the revenue inflow and to provide a better control in monitoring these consumers.
- c) Generation and Printing of various report thereof of the respective consumers within time limit if required. (Separate rate should be quoted in the Annexure.)
- d) Monthly meter reading & bill printing of IP, & Bill Distribution of CT category consumers and having load up to 20 KW with cumulative & slot wise readings, entering it in MR-9, Data punching such as receipts, Meter & all allied documents with respect to IP consumers & conversion of data file for IT processing.
- e) Any other information/data asked by MSEDCL.

2. Scope of Activity: One -Time Survey: (For newly connected consumers only)

The following activities are to be carried out as part of one-time survey of all industry consumers:

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- a) Physical verification of Meter Installation
- b) Wiring verification
- c) Photograph of Meter Installation
- d) Voltage and Current measurement by Tong Testers / Multimeters
- e) Downloading of meter data using CMRI
- f) Creation of ASCII file and maintenance of Master data base of the Consumers.
- g) Submission of ASCII file to Subdivision, for analysis
- h) Creation and printing of Exception reports generated from the data collected from the field
- i) **Multiplying Factor**

2.1 Physical Verification of Meter Installation:

This includes following activities to be done by the agency at the consumer premises and the details needs to be filled up in the survey Performa sheet as given in Annexure 1. The salient observations to be recorded are:

- a) Electrical Hierarchy of the consumer; details of transformer, feeder and substation.
- b) Consumer Number, Name and Address
- c) Instantaneous values of all parameters as displayed by the meter and as measured by tong tester / multi-meter.
- d) Condition of Meter Box, Meter Terminal cover and seals
- e) Type of Meter Box - like plastic, wooden or proper meter box
- f) Meter Particulars like Meter No., Make, Type, CT Ratio, Meter Constant, Year of Manufacture and Class of accuracy
- g) Identification of Meter Type - Static or Electromechanical
- h) CT Particulars like CT Ratio, CT Make and CT Class
- i) Calculations of MF and to cross check the same with the last month's bill of the consumer.
- j) Status of Meter condition including display, display button, MD reset button, CT/PT Terminations

2.2 Wiring Verification:

The phase sequence, phase association and CT polarity for the 'metering equipment' have to be verified in the field. The following are the fault conditions, which can be encountered:

- a) PT Missing - Red / Yellow / Blue
- b) Current Missing - Red / Yellow / Blue
- c) CT polarity reversed - Red / Yellow / Blue
- d) Phase Association Error - Interchanging of CTs

The software used by the Agency should be comprehensive and should take into account all possible fault conditions, including combination of faults.

2.3 Photograph of the Meter Installation:

Digital photographs to be taken of all the sub-systems of metering system, to view the exact status of the meter condition including physical appearance, Electrical Connections, Terminal cover etc.

2.4 Voltage and Current measurement by Tong tester / Multimeter:

The Agency shall read the actual incoming phase voltages and currents

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using tong testers and multi-meters at a point beyond the meter terminal block, and compare the same with displayed voltage and current. By this test, one can find out the actual MF and any potential loose contacts in meter terminal block.

2.5 Creation and Maintenance of Master Data Base:

The Agency shall create a consumer master data base with all the particulars, as given in Schedule-1.

2.6 Downloading of Meter Data through CMRI:

Agency shall download data from various makes of meters installed as per the schedule of MSEDCL. The Agency shall download various makes of meters using a CMRI conforming to CBIP specification TR-111. If any abnormalities / non communicating meters are found during the course of meter data downloading, the same shall be intimated to the concerned authority of MSEDCL within 48 hours.

2.7 One Time Survey Reports:

On completion of One-Time survey, the Agency shall submit a detailed Analysis and Exception / Anomaly reports, as given in Schedule 2 and 3.

2. Monthly Data Downloading Activity:

The scope of the work includes the following:

- a) Monthly Meter Reading / Downloading of Meter data through CMRI
- b) Uploading the Meter data to Base Computer
- c) Submission of billing parameters as per prescribed format of MSEDCL
- d) Submission of Analysis Reports
- e) Submission of Exception / Anomaly Reports

3.1 Meter Reading/ Downloading of Data through CMRI

The Agency shall Read / Download data from various makes of meters installed as per the schedule of MSEDCL. The Agency shall download data from various makes of meters using CMRI conforming to CBIP specification TR-111 of May 1997. The meter data will be provided to MSEDCL as per their requirement on completion of the activity and the data downloads will be utilized for analysis and generation of reports. If any abnormalities / non communicating meters are found during the course of meter reading, the same shall be intimated to the concerned authority of MSEDCL within 48 hours.

3.2 Uploading of Data to Base Computer: Data downloaded throughout the day would be uploaded into the respective base computer software and the raw data would be archived.

3.3 Extraction of Billing parameters & Submission of data in prescribed format:

The agency shall develop suitable software to convert the raw data extracted from L&T, Secure, ABB, Elyster, and Genus make of meters and generate a flat file in ASCII format as per the prescribed billing format of MSEDCL. In case the meter is non-communicating, the relevant billing parameters need to be generated electronically as per B30 format of MSEDCL. The parameters that are required in prescribed format is given in

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Schedule 4.

3.4 Exception / Anomaly Reports:

The agency shall carry out a detailed analysis of Instantaneous, Load survey and Tamper event data, and submit a detailed Analysis and Anomaly reports, clearly indicating the detects in metering systems, which would include

- a) Severe and Nominal PT Unbalances
- b) Severe and Nominal CT unbalances including reversal of CTs
- c) Identify consumers with Very Low Load Utilization
- d) Identify meters with Load Survey Value is Zero in all the Slots
- e) Tamper Event Not Restored or occurring intermittently
- f) Extreme variations in power factor and demand
- g) Meters with high incidences of No-load / No-power
- h) Faulty meters
- i) TOD meters / non-communicating meters which cannot be billed as per TOD tariff schedule.

4. Inputs / Assistance to be provided by MSDCL

MSEDCL shall provide the following assistance to the Agency:

- a) Feeder wise list of existing CT operated consumers with details of installed CT-PT set with Sr. No., Ratio, Class, Meter Make, Type, Class of CT, TVM, Previous readings and Multiplying factor.
- b) Raw data as obtained from Common Meter Reading Instrument (CMRI).
- c) All the meters shall be programmed for recording billed energy and resetting MD at 0000 hours on the 1st day of the calendar month.
- d) List of disconnected consumers, for which monthly readings are not applicable/ required.
- e) CMRI software and BCS software with feature to convert the CMRI data to a documented ASCII file output for different makes of TOD meters installed in MSEDCL.
- f) One departmental employee authorized for breaking seal before taking reading and re-sealing after the meter reading and data downloading work is completed will be provided by MSEDCL. Necessary seal wire and seals to be given by Engineer-In-Charge to the employee so nominated/authorized in writing for this purpose.
- g) Billing parameters, Load survey and all other required Data in ASCII formats in base computer for different make of meters.
- h) Tamper data in ASCII format.

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SECTION-4
SCHEDULES AND ANNEXURES

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SECTION-4

Schedule 1

Consumer Data Profile

The following details are to be collected from the field

- a) Proforma No
- b) Circle Name
- c) Division; Sub Division; Sub-Station Name
- d) Feeder; Transformer Name
- e) Consumer No.; Consumer Name; Address
- f) Meter No; Meter Make; Meter Class; Meter CT Ratio (A); Meter Constant
- g) Meter Type; Meter Year of Mfg;
- h) Working status: Meter; Display; Display Switch; MD Reset Switch
- i) Status of Termination of CT Wire, PT Wire and Seal
- j) CT Make; CT Ratio (A) ; CT Class
- k) MF in Billing; Calculated MF
- l) CD (kVA)
- m) Cons Category; Industry Type
- n) No of Shifts; Time_Shift1; Time_Shift2; Time_Shift3; Weekly Off

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- o) Contact person; Telephone No; Mobile Number; Fax Number; Website / Email-Id
- p) Capacitor Bank Capacity (kVAR)
- q) Generator Capacity (kVA); Generator Meter Availability
- r) Industry Status
- s) Download Status; Photo Taken Status; Bill Collected Status

Schedule 2

Analysis Reports

- a) Usage index: Usage of load with respect to average and contract demand
- b) Load Utilization: Actual usage of load in % slot wise with respect to contract demand
- c) No load & Black out: Percentage wise no load and black out slot wise
- d) PF Status Report: Percentage of PF slot wise
- e) Date wise report: Day wise consumption of kWh, kVAH, kVA
- f) Instantaneous Parameter: Instantaneous values of Voltage, Current, Power etc.
- g) Status of RTC: It shows the RTC is correct or not, wiring verification
- h) Exceed contract demand: Cases of maximum demand exceeding the contract demand
- i) Tamper events report: Tamper occurred in that month and of the previous month
- j) Transaction events Report: Transaction events registered by meter
- k) List of consumers: Entire list of consumers for whom the activity is carried out
- l) MD exceeds CD: Consumers whose maximum demand exceeded contract demand

Schedule 3

Exception / Anomaly Reports

- a) PT Unbalance - Nominal: List of Consumers whose Phase Voltage difference between two phases is 30 V and above.
- b) PT Unbalance - Severe: List of consumers where any one of the Phase Voltage is less than 170 V.
- c) CT Unbalance - Severe: List of Consumers whose Line Current is less than 1A when the Other Phase Current is more than 10A.
- d) CT Reversal: List of Consumers whose CT Found Reversal when the PF is more than 0.5lag.
- e) Very Low Load Utilization: List of Consumers whose %of Slots <20% of CD is 50 and above.
- f) Load Survey Value is Zero in all the Slots: List of Consumers whose Every Slot value in Load Survey Data is Zero for the Availability Number of Days.
- g) All the Parameter Values are Zero in Inst. Parameter: List out the Consumers for whom all the Instantaneous Parameter Values are Zero even after the restoration of power.
- h) Tamper Event Not Restored: List of Consumers where Tamper Event occurred but not restored (all tamper events occurred during the last three days from the date of reading are not considered).
- i) Tamper Event Occurred Intermittently: List of Consumers where Tamper Event occurred intermittently in the previous month and the duration is more than 24 hrs.
- j) Power Factor less than 0.5 for more than 50% of total used slots: List of Consumers whose % of Slots <0.5 PF is 50 and above.
- k) Low Average Demand With Respect to Contract Demand: List of Consumers whose Average Demand is less than or Equal to 50% of Contract Demand.
- l) Maximum Demand Exceeded Contract Demand: List of Consumers whose Maximum Demand Exceeded Contract Demand.
- m) High No Load and Blackout Slots: List of Consumers whose sum of No load and Black out duration is 10% and above calculated for each slot.
- n) RTC Corrupted: List of Consumers whose RTC found Corrupted (RTC Drift is more than Month).
- o) Meter Faulty: List of Consumers whose Meter found Faulty (Even after Getting the Supply Voltage, Meter is not Energized).
- p) Meter Display Problem: List of Consumers whose Meter Display found Problem (Clarity is not Good).
- q) Electro Mechanical Meters: List of Consumers whose Meters are Electro-mechanical.
- r) Electronic Meters without Optical Port: List of Consumers whose Meters are Electronic, but it does not have Optical Port.
- s) Data Pro and Duke Arnics Meters: List of Consumers whose Meters are either Duke Arnics or Data Pro or other than ABB, Elyster, Secure, L&T & Genus make.
- t) Meters with one TOD slot: List of consumers with only one TOD slot.

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Schedule 4



MSEDCL prescribed format for Billing and TOD data, using CMRI

S.No	Starting Position	Column Specification	Width	Remark
1	0	Meter serial number	Char(8)	
2	8	Meter Make code	Char(3)	MSEDCL to provide
3	11	Reading date	Date(8)	Format 'ddmmyyyy'
4	19	Reading time	Char(10)	Format HH:MM:SS
5	29	No of reset	Number(3)	
6	32	RY_Volt	Number(6,2)	4 integer, 2decimals
7	38	YB_Volt	Number(6,2)	
8	44	BR_Volt	Number(6,2)	
9	50	RN_Volt	Number(6,2)	
10	56	YN_Volt	Number(6,2)	
11	62	BN_Volt	Number(6,2)	
12	68	RY_current	Number(10,2)	8 integer, 2decimals
13	78	YB_current	Number(10,2)	
14	88	BR_current	Number(10,2)	
15	98	RN_current	Number(10,2)	
16	108	YN_current	Number(10,2)	
17	118	BN_current	Number(10,2)	
18	128	H_KW	Number(15,3)	12 integer, 3decimals
19	143	H_KVA	Number(15,3)	
20	158	H_KWH	Number(15,3)	
21	173	H_KVAH	Number(15,3)	
22	188	H_RKVAH	Number(15,3)	
23	203	S1_KW	Number(15,3)	
24	218	S1_KVA	Number(15,3)	
25	233	S1_KWH	Number(15,3)	
26	248	S1_KVAH	Number(15,3)	
27	263	S1_RKVAH	Number(15,3)	
28	278	S2_KW	Number(15,3)	
29	293	S2_KVA	Number(15,3)	
30	308	S2_KWH	Number(15,3)	
31	323	S2_KVAH	Number(15,3)	
32	338	S2_RKVAH	Number(15,3)	
33	353	S3_KW	Number(15,3)	
34	368	S3_KVA	Number(15,3)	
35	383	S3_KWH	Number(15,3)	
36	398	S3_KVAH	Number(15,3)	
37	413	S3_RKVAH	Number(15,3)	
38	428	S4_KW	Number(15,3)	
39	443	S4_KVA	Number(15,3)	
40	458	S4_KWH	Number(15,3)	
41	473	S4_KVAH	Number(15,3)	
42	488	S3_RKVAH	Number(15,3)	

GENERATION OF VARIOUS OUTPUT REPORTS

- 6.0 Generation of Output Report:** The following output reports need to be generated by the Agency using Electronic Meter Data Conversion, Analysis and Report Generation(EMDCARG) software developed by the Agency :
- 6.1 Load Survey Analysis:** Agency shall study the load survey of each consumer and shall submit the load survey report of each consumer with the following features:-
- 6.1.1 Date wise Report: (Ref Annexure-1):**In this report Agency should provide consumption, Maximum, Minimum and average power factor of the consumer on daily basis. Using this report MSEDCL shall observe the consumers daily activities.
- 6.1.2 Contract Demand Violation: - (Ref Annexure- 2)**
- 6.1.2.1 This report shall show the ½ hour slots for which contract demand has been exceeded.
- 6.1.2.2 This will be helpful to the MSEDCL for assessing the Penalty charges for the exceeded percentage of the contract demand violation made by the consumer.
- 6.1.2.3 The consumer demand pattern shall be analyzed by the MSEDCL in case of repeated violations and fresh demand based on the assessment can be recommended for the consumer which will result in efficient load management of the Substation.
- 6.1.3 Blackout and No load Demand Reports: - (Ref Annexure- 3)**
- 6.1.3.1 Black Out report will show the ½ hour slots for which power was not available at the consumers end.
- 6.1.3.2 No load Report will show the ½ hour slots for which power was available but consumer meter shows no load.
- 6.1.3.3 This will help the MSEDCL to analyze the period of power failure in any industry and the no load period of the industry.
- 6.1.4 Power factor Profile ((Ref Annexure- 4)**
- 6.1.4.1 This report should provide a detailed description of the power factor of all individual consumers in different slots varying from less than 0.5 to greater than 0.9 where we can have the brief description of Load pattern.
- 6.1.4.2 This will help the MSEDCL in encouraging the good consumers and penalizing consumers falling below the target limits. The MSEDCL for effecting power factor corrective measures may counsel continuous erring consumers.
- 6.1.5 Load Utilization pattern Report. (Ref Annexure-5):** This report will give the details of the consumers load utilized as <20% of CD, 20 to 40% of CD, 40 to 60% of CD, >60% of CD during general shift and other than general shift.
- 6.1.6 Comparison of energy consumed as per load survey during the reporting period with energy consumed as per billing parameters.(Ref Annexure-6)**
:To crosscheck the Energy value recorded in the meter with that of Load survey data.
- 6.1.7 Comparison of consumption pattern / recorded demand of the industry of same pattern. (Ref Annexure-7):** In this report Brief description profile of the consumption and demand pattern of consumers to be provided.
- 6.1.8 Usage Index (Ref Annexure-8)**
- 6.1.8.1 Load Factor(Average demand / contract demand)
- 6.1.8.2 Average Demand / maximum Demand
- 6.1.8.3 Maximum demand / contract demand

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6.1.9 Reports of the consumers having fall in consumption as compared between, (Ref Annexure-9)



- 6.1.9.1 Current month consumption
- 6.1.9.2 Last month consumption
- 6.1.9.3 Last year current month consumption
- 6.1.9.4 Using this we make the comparative analyses of the consumption of the industry.

6.1.10 Tamper Events (Ref Annexure-10) : The tamper events logged in the meter would be analyzed and the following fault conditions would be segregated with remarks: -

- 6.1.10.1 Potential Missing of individual phase, two phase or all phases
- 6.1.10.2 Current Missing of individual phase, two phase or all phases
- 6.1.10.3 Current unbalance
- 6.1.10.4 Neutral Disturbance
- 6.1.10.5 Power failure tampers

6.1.11 List of Defective Meters: (Ref Annexure-11): Agency shall also deliver the report the cases of defective meters, such as,

- 6.1.11.1 RTC Problem
- 6.1.11.2 MF Correction
- 6.1.11.3 Seal Tampered
- 6.1.11.4 Meter Bypassed
- 6.1.11.5 Direct Supply
- 6.1.11.6 CT Missing
- 6.1.11.7 PT Missing

6.1.12 Transaction report. (Ref Annexure-12)

6.1.13 Instantaneous Report (Ref Annexure 13): Used for wiring verification

6.1.14 List of consumers read through CMRI. (Re. Annexure-14)

6.1.15 List of consumers whose meter did not communicate with CMRI. (Ref. Annexure-15)

6.1.16 Summary Report: (Ref Annexure-16):This Report consists of the following Inputs:

- 6.1.16.1 List of category CT operated consumers
- 6.1.16.2 Details of Meter Make and Type
- 6.1.16.3 No Tamper Events in the Tamper Register
- 6.1.16.4 No Transaction Events
- 6.1.16.5 Unbalance Current
- 6.1.16.6 Line Current Exceeded Rated Current
- 6.1.16.7 Low Monthly Power Factor
- 6.1.16.8 Maximum Demand Exceeded Contract Demand
- 6.1.16.9 Class 1.0 Static Meters
- 6.1.16.10 List of Meters Abnormal Tamper Events recorded
- 6.1.16.11 Defective Meters
- 6.1.16.12 Sum of No Load and Black Percentage more than 5% of Total Slots
- 6.1.16.13 Load Analysis of Higher CMD Services
- 6.1.16.14 Meter Changed Cases

**Specifications for Electronic Meter Data Conversion, Analysis &
Report Generation (EMDCARG) SOFTWARE**

- 1.0 **Introduction:** All CT-II (Non Residential having load more than 20 kW) and CT-V (Industrial having load more than 20 kW or 27 HP) other type (having load more than 20 KW or 27 HP) consumers in MSEDCL are fitted with electronic meters.
- 1.1 The special features of metering system and related functions are:
- 1.1.1 These meters store Billing, Load-Survey and Tamper data in the memory for 45 days.
 - 1.1.2 These meters are fitted with IEC 1107 / ANSCI / PACT protocol compliant optical ports for data downloading using Common Meter Reading Instrument (CMRI).
 - 1.1.3 The CMRI is loaded with meter-manufacturer specific software for downloading the data from the meter memory to CMRI memory.
 - 1.1.4 The meter data from the CMRI memory is transferred to Base Computer System (BCS) hard-disk via standard RS-232 communication cables.
 - 1.1.5 The meter data is analyzed using meter-manufacturer specific BCS software.
- 1.2 The following problems are being encountered in the existing system:
- 1.2.1 The meter-manufacturer specific BCS software do not generate all the reports required by the utility.
 - 1.2.2 The billing data is not provided in the format, which can be directly interfaced with the utility billing software.
 - 1.2.3 The analysis of load-survey data of two industries with different makes of meters become difficult due to non-standard formats adopted by different meter manufacturers.
- 1.3 In order to overcome all the above deficiencies and to provide a unified approach in data handling, it is proposed to develop EMDCARG software capable of
- 1.3.1 Conversion of various formats of data of various meter manufacturers to a common format.
 - 1.3.2 Provide easy interface to MSEDCL's billing software, to avoid any manual intervention in handling of high revenue data.
 - 1.3.3 Generate all reports required by MSEDCL, using the common format data, to avoid dependencies on meter manufacturer.
- 1.4 The software should be compatible with the following makes of meters, available with the utility:
- 1.4.1 Secure
 - 1.4.2 L&T
 - 1.4.3 ABB
 - 1.4.4 Genus
 - 1.4.5 Elyster

2.0 Specifications:

- 2.1 The EMDCARG software should be capable of primary functions like:

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- 2.1.1 Accept Billing, Load-Survey and Tamper data, generated by respective meter manufacturer's Base Computer System (BCS) software in ASCII format.
- 2.1.2 The data format in different proprietary formats should be converted to a Common Data Format. The CDF should be well documented and submitted to the utility.
- 2.1.3 All required reports should be generated from only CDF files.
- 2.2 Billing Data Report: The application should be capable of generating the current billing and billing history data from the ASCII file of billing data. The billing data should be provided in the format, as defined by the utility, and should interface with the utility CT Operated Meters billing system without any manual intervention. The format of the billing report is as given in Annexure 1.
- 2.3 Load Survey Reports: The application should be capable of generating the following reports using the Load Survey data, as obtained from the ASCII file from BCS of respective meter manufacturer:
 - 2.3.1 Management Summary Report (MSR): The MSR would contain the complete history of both demand and energy for a particular period, datewise. The various reports to be generated under MSR are:
 - 2.3.1.1 Date-wise report: This report provides daily energy consumption in kWh, maximum & minimum demand kVA and average power factor for the day. Also, the date and time of maximum & minimum demand and best power factor achieved over the reporting period is also given. A sample report is given in Annexure 1.
 - 2.3.1.2 Blackout & No-Load status: This report contains information about blackout slot value for both consumer and sub-station end by day-wise contains information about no-load slot values and black-out slot values on daily basis. A sample report is given in Annexure 3
 - 2.3.1.3 Exceeded Contract Demand: This report contains information about the demand violation along with max kVA, peak-hour violation and closing day on daily basis. A sample report is given in Annexure 2.
 - 2.3.2 Load Analysis Report: The Load Analysis report represents the overall statistical analysis of group of industries with respect to their Load Utilization, Usage Index and Power factor in various ranges. This report will aid the utility in characterizing industries manufacturing similar or identical products. Also, many anomalous conditions in respect of violation of Contract Demand can be analyzed. The various reports to be generated under this category are:
 - 2.3.2.1 Load Utilization: The load utilization figures for periods during General Shift and outside shift hours are given in this report. The various load utilization periods of less than 20%, 20 to 40%, 40 to 60% and more than 60% for both the General and Outside-General shift hours are given. A sample report is given in Annexure 5.
 - 2.3.2.2 Usage Index: This report contains details about Contract Demand, Maximum Demand and Average Demand. Also, ratios of AD/CD, AD/MD and MD/CD are given to give a picture of extent of violations, if any. A sample report is given in Annexure 8.

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- 2.3.2.3 Power Factor Report: The power factor profile is generated from the kVA and kVAh values of load survey data. The durations of periods for which the power factor was in the range of less 0.5, 0.5 to 0.7, 0.7 to 0.9 and more than 0.9 is tabulated. This report would benefit both the utility and the consumer to assess the penalties due to low power factor and effect measures to improve the same. A sample report is given in Annexure 4.
- 2.3.3 Consumption-Demand Graph: With the available monthly consumption and demand data in the database, these graphs should be plotted. This graph would reveal abnormal variations between consumption and demand. Also, effect of seasonal variations can also be observed from these graphs.
- 2.3.4 Load Survey Graph: Daily consumption in terms of half-hour periods to be plotted for the period of reporting. This graph would reveal most of the anomalous conditions in consumption pattern and would greatly help the utility in detecting abnormal conditions very easily.
- 2.3.5 Consumer Profile: This report contains details of Consumer Number, Meter number, Name, address, contact person, phone number, fax no., website etc.

3.0 **Minimum Requirements:** The EMDCARG Software should have been tested and validated for various makes of meters and should meet the following qualifying requirements:

- 3.1 Should have been in use for at least two years. Supporting documents to be submitted along with the offer.
- 3.2 Should have tested for at least three makes of meters.
- 3.3 Should have been used for data analysis of at least 1000 consumers. Sample reports of analysis with end-customer details should be submitted along with the offer.

LATEST SUB DIVISION WISE NO. OF CTM CONSUMERS having load above 20 KW

S. No.	Sub-Division	No. of Consumer
1	Nandanwan S/Dn	228
Total		228

* No. of consumers shown above are approximate and may liable to increase/decrease due to new connections/disconnections.

LATEST SUB DIVISION WISE NO. OF IP, Commercial CONSUMERS having load Below 20 KW

S. No.	Sub-Division	No. of Consumer
1	Nandanwan S/Dn	728
Total		728

* No. of consumers shown above are approximate and may liable to increase/decrease due to new connections/disconnections.

Annexure - 1

DATE WISE REPORT

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Contract Demand Violation

In the following cases, Maximum Demand exceeded the contract demand more than 5% .

1.CT Consumers

Sr No	SANDS Ref. No	Cons No	Consumer Name	Meter No	CD (KVA)	MD (KVA)
1						
2						
3						
4						
5						
6						
7						
8						

Annexure - 3

Blackout and No load Demand Report

Sr. No	Ref. No	Cons No	Consumer Name	Meter No	No Load Slots Percentage	Block out Slots Percentage
1						
2						
3						
4						

Annexure - 4

Power Factor Profile

Sr.	Ref.	Cons	Consumer	Meter	Percentage	Percentage	Percentage	Percentage
------------	-------------	-------------	-----------------	--------------	-------------------	-------------------	-------------------	-------------------

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No	No	No	Name	No	of Slots less than 0.5 PF	of Slots between 0.5 - 0.7 PF	of Slots between 0.7 - 0.9 PF	of Slots more than 0.9PF
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

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Sr. No	Ref. No	Cons No	Consumer Name	Meter No	Annexure - 8 USAGE Index			
					MF	CD	MD	ADAD/CDAD/MD MD/CD
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

Annexure - 9

Consumption Comparison

Sr. No	Ref. No	Cons No	Consumer Name	Meter No	Current(Dec 05) Consumption	Last Month(Nov 05) Consumption	Same Month on Last Year(Dec 04) Consumption
1							
2							
3							
4							
5							
6							
7							
8							

EE/MHL/DN/Tech/CT-IP Reading/21-22/T-04

Annexure - 10

Tamper Event

S. No	Ref. No	Cons No	Consumer Name	Meter No	Type of Tamper	No. of Events Recorded Upto	No. of Events Recorded During ____
1						_____	
2							
3							
4							
5							
6							
7							
8							
9							
10							

Annexure - 11

Meter Faulty

Sr. No	Ref. No	Cons No	Consumer Name	Meter No	Supply Voltage(kV)	CD (kVA)	MF	Remarks
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

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Transaction Report

Sr. No	Ref. No	Cons No	Consumer Name	Meter No	Transaction Events Recorded Upto _____	Transaction Events Recorded During _____
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

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Instantaneous

Parameter

Sr No	Ref. No	Con No	Consumer Name	Meter No	MF	Seq	Phase Type	Rphase Voltage (KV)	Y phase Voltage (KV)	B phase Voltage (KV)	R phase Line Current (Amps)	Y phase Line Current (Amps)	B phase Line Current (Amps)	R phase Active Current (Amps)	Y phase Active Current (Amps)	B phase Active Current (Amps)	R phase PF	Y phase PF	B phase PF	Avg PF	Active Power (KW)	
1																						
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						

EE/MHL/DN/Tech/CT-IP Reading/21-22/T-04

SEAL & SIGNATURE OF THE TENDERER

Annexure - 14

Wiring Verification Report

Sr. No	Ref. No	Cons No	Consumer Name	Meter No	Meter Make	Meter Type	Interval Period	Sequence	RTC	Wiring Status
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Annexure - 15

Brief Summary Report

Sr. No	Description	No. of Consumers	Remedial Solution
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

SEAL & SIGNATURE OF THE TENDERER



SECTION - 3

SAMPLE FORMATS

SECTION 3

SAMPLE FORMS

(Bidders are advised to note the contents of the following Sample Forms, which form the part of Bidding Document.)

SAMPLE FORM - A _____ 60
BID FORM

SAMPLE FORM - B _____ 61
CHECK LISTT

SAMPLE FORM -C _____ 62
EMD (BANK GUARANTEE)

SAMPLE FORM -D _____ 63
LETTER OF ACCEPTANCE

SAMPLE FORM -E _____ 64
CONTRACT AGREEMENT

SAMPLE FORM - F _____ 65
PERFORMANCE SECURITY (BANK GUARANTEE)

Bidders should not complete unconditional performance security form at this juncture. The successful bidder will be required to provide performance security deposit in accordance with the sample format.

SEAL & SIGNATURE OF THE TENDERER

SAMPLE FORM - A
(On Bidder's Letterhead)
Bid Form

BID NO. EE/MHL/DN/Tech/CT-IP Reading/21-22/T- 04

For Project: Tender for Annual Contract for Monthly Meter Reading, Bill printing , Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP ,Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers).

To:

The Executive Engineer,
MSEDCL, MAHAL Division, Maharashtra.

Gentlemen,

I/We the undersigned have carefully examined and understood the bid documents. I/We hereby agree for the work of Annual Contract for Monthly Meter Reading, Bill printing , Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP , Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers)and allied works as defined in the bid document in accordance with the conditions of the contract and other prices identified in the Contract Data accompanying the bid.

This bid and your written acceptance shall be the basis for Contract Agreement. I/We understand that you are not bound to accept the lowest or any bid you receive or assign any reason thereof for the rejection.

I/We further agree to sign an agreement to abide by the General Conditions of Contract and carry out all works according to specific clauses.

I/We, agree to keep this Bid open for acceptance for 60 days from the date of opening thereof and also agree not to make any modification in its terms and conditions on my/our own accord.

Signed this day _____ of _____ 20__.

Yours faithfully,

Signature of the Authorized Signatory

Name of the Authorized Signatory:

Designation :

Name & Address of the company:

Date

Seal of Company:

Witness:

1) Name : _____ Signature
Address

2) Name : _____ Signature
Address

SEAL & SIGNATURE OF THE TENDERER

(To be filled in by the Bidder, together with his particulars and date of submission at the bottom of the Form of Bid.)

SAMPLE FORM - B

Check list Qualification Information

(Tenderer is specifically requested to check the list before submitting the tender)

S. No.	Particulars	Remarks
1	Tender purchased M.R. No./D.D. No. & Date	
2	EMD paid details M.R./D.D./B.G. No. & Dt.	
3	Experience of similar work in MSEDCL/ Power Utility only	
4	Valid copy of Electrical License	
5	Solvency Certificate of 25%of tender costs & Before 6 months.	
6	Registration of GST & Bombay Shop Establishment Act Registration	
7	PF Registration No., labour laws as may be applicable as per Relevant acts and ESIC Registration	

SEAL & SIGNATURE OF THE TENDERER

SAMPLE FORM -C

BANK GUARANTEE

(To be executed on Rs.200 non-judicial stamp paper purchased in the name of issuing Bank)

WHEREAS, (Name of bidder) (herein called "the Bidder") has submitted his bid dated _____ for the Contract No. -----Dated-----for_____. Project. (Hereinafter called "the Bid").

KNOW ALL MEN by these presents that We (name of Bank) having our registered office at _____ (hereinafter called "the Bank") are bound unto Maharashtra State Electricity Distribution Company LTd, Maharashtra State, India (hereinafter called "the Employer") in the sum of _____for which payment well and truly to be made to the said Employer the Bank binds himself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this ____ day of _____ 2019.

THE CONDITIONS of this obligation are:

- (1) If the bidder withdraws his Bid during the period of bid validity specified in the Form of Bid.
- (2) If the Bidder having been notified of the acceptance of his Bid by the Employer during the period of bid validity and
 - (a) Fails or refuses to execute the Form of Agreement in accordance with the instructions to Bidders, if required; or
 - (b) If the bidder does not accept the correction of his bid price pursuant to Clause 26 of Section -1 or
 - (c) Fails or refuses to furnish the performance Security, in accordance with the instruction to Bidders.

We hereby agree un equivocally and unconditionally to pay at ----- within 48 hours, to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date 30 days after the deadline for bid validity as per clause 14 of the instructions to Bidders or as the Employer may extend it, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE _____ SIGNATURE OF AUTHORISED SIGNATORY _____

Name and Designation:

Seal of Bank

Bank Address:

WITNESS:

(Signature)

Name & address:

SEAL & SIGNATURE OF THE TENDERER

SAMPLE FORM -D

**LETTER OF ACCEPTANCE
By Regd Post A/D**

Contract No.-----

Date

To: _____ (Name and address of the Contractor)

Dear Sirs,

This is to notify you that your bid dated _____ for Annual Contract for Monthly Meter Reading, Bill printing , Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP , Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers) under MAHAL Division, NUC, through CMRI as defined in the bid document for Contract Price (amount in figures and words),as corrected and modified in accordance with the instructions to Bidders is hereby accepted by us.

You are advised to submit performance security within 7 days and sign a contract agreement within 7 days from the date of this letter.

You are hereby instructed to proceed with preparation for the said Works in accordance with the Contract documents as listed in the Contract Data attached hereto.

Yours faithfully,

Signature

Name

Title

Employer

(Signature, name and title of signatory Authorized to sign on behalf of the Employer)

Copy to:

1. The Executive Engineer (O&M), MSEDCL, MAHAL Division.
2. The Junior. Manager (F&A), MSEDCL, MAHAL Division,
3. The System Analyst (IT), MSEDCL, **Nagpur Urban Circle, Nagpur.**

SEAL & SIGNATURE OF THE TENDERER

SAMPLE FORM - E
FORM OF CONTRACT AGREEMENT

This agreement made this ____ day of _____ 2019, between the Maharashtra State Electricity Distribution Company Limited Represented by the Executive Engineer (MAHAL Division), Maharashtra State Electricity Distribution Company Limited, Office of the Executive Engineer, Old Shukrawari road Nandanwan Nagpur-440018, (India) (Here in after called "the Employer") of the one part and _____ of _____ (hereinafter called "the Contractor") of the other part.

Whereas the Employer desires that the work of Annual Contract for Monthly Meter Reading, Bill printing , Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP , Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers) under MSEDCL, MAHAL Division, MAHAL should be executed by the contractor and has accepted a Bid by the contractor for the execution of such works and the remedying of any defects therein.

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meaning as are respectively assigned to them in the Conditions of Contract hereinafter referred to.

2. The following documents shall be deemed to form and read and constructed as part of this Agreement.

- (a) The Letter of Award no. _____ dated _____
- (b) The Conditions of Contract
- (c) Detail scope of work.
- (d) Sample Forms.
- (e) The Completed Schedules, Annexure and
- (f) The Contractor's Proposal.

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned. The Contractor hereby covenants with the Employer to execute and complete the works. Remedy any defects therein and maintain the completed Facilities in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the works, the remedying of defects therein and guarantee of the completed Facilities, the amount of [*insert the Contract Price*] or such other Sum as may become payable under the provisions of the Contract at the times and the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be execute the day and year first before written in accordance with their respective laws.

Authority signature of Contractor

SEAL

In the presence of:

Name _____

Signature _____

Address _____

SEAL & SIGNATURE OF THE TENDERER

Authority signature of Employer

SEAL

In the presence of:

Name _____

Signature _____

Address _____

SAMPLE FORM - F

PERFORMANCE SECURITY (BANK GUARANTEE)

- (1. To be executed on Rs.200 non-judicial stamp paper purchased in the name of Issuing Bank.
- 2. This Guarantee shall be valid until the date of issue of the Completion Certificate.)

To,

The Executive Engineer,

MSEDCL, MAHAL Division, NAGPUR.

WHEREAS M/s -----(hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ for Annual Contract for Monthly Meter Reading, Bill printing , Bill Distribution & Acknowledgement receipt of delivery to consumer of All PC 0 Consumers (IP , Commercial and Others) CT/Whole Current meter Consumers under Nandanwan Sub-Division of Mahal Division (With CMRI for above 20 KW load consumer & without CMRI for balance Consumers). of MAHAL Division as defined in the bid document.

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by Scheduled / Nationalized Bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of amount of guarantee) _____ (in words) _____, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified herein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid up to & including date _____.

SIGNATURE OF AUTHORISED SIGNATORY AND SEAL OF THE BANK:

Name of Bank _____

Address _____

Date _____

In witness whereof the surety has executed this deed in presence of

SEAL & SIGNATURE OF THE TENDERER

WITNESS: (Signature)

Name and Address.

ANNEXURE 'G'

LETTER TO THE EXECUTIVE ENGINEER

To,
The Executive Engineer,
MSEDCL, MAHAL Division, NAGPUR.

Dear Sir,

We agree to execute the work as mentioned in the above tender at the rates herein tendered by us subject to the conditions of the tender which we have carefully read and thoroughly understood the same.

We hereby agree to keep this offer open for 60 days after the returnable date of the tender and shall be bound by communication of acceptance dispatched within the prescribed time.

Yours faithfully,

Date:

Name and address of the tenderer

Seal and signature of the tenderer.

SEAL & SIGNATURE OF THE TENDERER

SEAL & SIGNATURE OF THE TENDERER