

**BALMER-
LAWRIE & CO.
LTD. (A
GOVERNMENT
OF INDIA
ENTERPRISE)**

**Inviting Tenders for Design,
Supply, Fixing, Testing and
Commissioning of HT and LT
Electrical Works for Temperature
Controlled Warehouse at Medchal,
Hyderabad, Telangana**



**बामर लॉरी एण्ड कं. लिमिटेड
Balmer Lawrie & Co. Ltd.**

Inviting Tenders for Design, Supply, Fixing, Testing and Commissioning of HT and LT Electrical Works for Temperature Controlled Warehouse at Medchal, Hyderabad, Telangana

Tender Reference - BL/LI/CC/HYD/20 Dated 04/07/2015

M/S BALMER LAWRIE & CO. LTD invites ONLINE BIDS from experienced, competent and resourceful contractors with sound technical and financial capabilities for Design, Supply, Fixing, Testing and Commissioning of H.T. & L.T. Electrical Works for Temperature Controlled Warehouse at Medchal, Hyderabad in Telangana State.

Tender Notice

S. No.	Particulars	Description
1	Name of Work	Design, Supply, Fixing, Testing and Commissioning of HT and LT Electrical Works for Temperature Controlled Warehouse at Medchal, Hyderabad.
2	Tender reference number	BL/LI/CC/HYD/20 Dated 04/07/2015
3	Date of Publishing of Tender document on the website	04/07/2015, 15:00
4	Last date and time of receiving applicants' clarifications in writing	14/07/2015 17:30
5	Last date and time for submission of Tender	27/07/2015 17:30 pm
6	Period of Completion	90 Days
7	Vid Validity	150 Days
8	Cost of Tender Documents (Non-refundable)	1500/- (Rs. One Thousand Five Hundred Only) by Demand Draft drawn from any Nationalized or Scheduled Bank in India Payable at Kolkata in favour of Balmer Lawrie & Co. Ltd.
9	Earnest Money Deposit (EMD)	Rs. 60,000.00 (Rs. Sixty Thousand Only) by Demand Draft or in the Form of B.G. as per the attached format in Annexure -I drawn from any Nationalized or Scheduled Bank in India payable at Kolkata in Favour of Balmer Lawrie & Co. Ltd.
10	Pre-Bid Meeting	14/07/2015
11	Date and time of Technical Bid Opening	28/07/2015
12	Contact Name and address for communication	Snehal Piyush, Balmer Lawrie & Company Limited, 21, Netaji Subhas Road, Kolkata 700001, Mobile 9748343969. Piyush.s@balmerlawrie.com

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1. INTRODUCTION

Balmer Lawrie & Co. Ltd., a Government of India Enterprise under ministry of Petroleum and Natural Gas is setting up Temperature Controlled Warehouse (Cold Chain Projects). Online offers are invited from reputed, established and resourceful contractor who qualify the Pre-qualification Criteria mentioned in clause no. 6 for Design, Supply, Fixing, Testing and Commissioning of H.T. & L.T. Electrical Works.

The tender is on line in two-bidding system. The tender document consists of **Part I Technical Bid and Part II Price Bid.**

2. GENERAL SCOPE OF WORK

- a. The scope of work shall covers the requirements of Design, Supply, Fixing, Testing and Commissioning of electrical equipment and accessories mentioned as here under and the attached Bill of Quantities for the various items described therein. This also covers the procedure to be adopted for Inspection, Testing and Commissioning for all electrical equipment at site. The works shall be carried out strictly in accordance to the Tender conditions. The Electrical contractor shall be well established and must be a reputed Electrical Contractor having License for working as electrical contractor of 22KV/ 11KV/ 415 Volts substations issued by state administrations of the state in which the contractor is working.
- b. The scope of Contract is explained below,
 - i. Plan approval from Electrical Inspector, TSSPDCL etc.,
 - ii. Supply, Erection, Testing and Commissioning of HT Side
 - iii. Metering Kiosk
 - iv. HT Panels
 - v. Transformers
 - vi. L.T. Panels & Accessories.
 - vii. 11 KV-E-Grade XLPE HT Cable as per TSSPDCL Specifications
 - viii. Earthing System
 - ix. External Street Lighting System
 - x. Internal Lighting System
 - xi. UPS

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- xii. Miscellaneous civil works like excavation & back filling, Sand, Half Round Pipes, red burnt bricks etc., for external electric cabling.

Quantities as estimated or approximated are mentioned in schedule of quantities. Contractor shall however ascertain the exact quantity required at site and supply and install accordingly, for which quantity based items rate shall be payable. Supply of materials shall be to the satisfaction of this Tender Document and installation shall be as described, as per approved drawings, instruction issued by consultant or the owner from time to time. The contractor shall take into account prevailing ambient temperatures /weather conditions at site while designing the equipment. Any de-rating factors related to ambient temperature shall be considered as per relevant IS Codes.

c. Liasoning

- i. This shall include Obtaining Load Sanction Approval from TSSPDCL & Load release from TSSPDCL after completion of works.
- ii. Getting the installation approval and obtaining permission to energise the system from Electrical Inspectorate Authority.
- iii. Arranging visit of electrical inspector to site for Inspection of entire Electrical Installation which includes HT Cables, HT VCB, Transformer, L.T., External and Internal Lighting etc., as and where required.
- iv. Submission of test reports.

3. COMPLETION PERIOD

Time is the essence of the contract. The time schedule for execution of the total work shall be 90 (Ninety) Days from the date of receipt of work order or Letter of Intent whichever is earlier.

4. TENDER DOCUMENT

Tender Documents can be obtained from our website www.balmerlawrie.com or <https://balmerlawrie.eproc.in>.

5. COST OF BIDDING

The bidder shall bear all costs associated with the preparation and delivery of bid including (but not limited to) costs and expenses related to visits to the site(s) and other locations, and the cost of any

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investigations, evaluations and consultations. BL will in no case be responsible or liable for any costs regardless of the outcome of the bidding process.

Tender fee (Non-refundable) of INR 1500.00 to be submitted in the form of demand draft from any Schedule Bank payable at Kolkata in favour of M/s Balmer Lawrie & Co. Ltd.

MSME and NSIC organization will be exempted from paying Tender Fee against producing the supporting documents.

6. PRE-QUALIFICATION CRITERIA

To be eligible for qualification, BIDDERS shall provide evidence to suitability of their meeting the Criteria indicated in this Clause and furnish details giving their full bio-data, organizational setup, technical experience, availability of plant and equipment etc., to establish their capacity and competence, and possession of adequate resources to carry out the contracts effectively.

Bidder should also qualify in the following pre-qualification criteria

- i. The bidder should be well established and must be a reputed Electrical Contractor having Licence for working as electrical contractor of 22 KV/ 11 KV/ 415 Volts substations issued by Telangana State / State administration of the state in which the contractor is working. The copy of the same shall be submitted and must be valid for current financial year.
- ii. The bidder should have average annual financial turnover in last 3 years ending 31st Mar'2015 should be Rs. 4.80 Crore in similar nature of electrical work. The copy of audited balance sheet shall be submitted.
- iii. Bidder must have successfully completed similar works during last seven years ending 31st May 2015.
 - a. 3 jobs each of value not less than INR. 48.00 Lacs or
 - b. 2 jobs each of value not less than INR. 60.00 Lacs or
 - c. 1 job of value not less than INR. 96.00 Lacs.

Copy of work orders and completion certificates from the owner or from their consultant should be enclosed as supporting documents.

- iv. Bidder should not be blacklisted from any Government Entities or PSU under State or Central Ministry.

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- v. Bidder must be having the below registration and a copy of the same is required to be submitted
 - A. Company's Permanent Account Number (PAN).
 - B. PF and ESI Registration.
 - C. Registration for VAT, Excise Duty and Service Tax etc., as per the regulations.
- vi. Tender Fee as mentioned in the respective clause.
- vii. EMD Amount as mentioned in the respective clause.
- viii. Compliance as per HSE Norms mentioned in Annexure VII.

Please note that bidders not fulfilling the pre-qualification criteria will not be considered for further evaluation. Bidders may kindly refer to **Annexure II** for list of documents required to be submitted against prequalification criteria.

7. PRE-BID MEETING

To understand the scope of work and to get clarifications on the bidders' queries, bidders are requested to attend the pre-bid meeting scheduled on 14/07/2015. They may also email their queries to either **Mr. Snehal Piyush** (Mobile +919748343969, e-mail: piyush.s@balmerlawrie.com) or **Mr. Rakesh Choudhary** (Mobile +919866400155, e-mail: Choudhary.rr@balmerlawrie.com). Only at the time of publishing the tender there will be paper advertisement, after which there will be no paper advertisements and the bidders are required to follow our website for any amendments uploaded with respect to any clarifications.

8. TENDER DOCUMENTS

Tender Documents comprises two parts viz. Part-I (Unpriced Part) and Part-II (Unpriced BOQ). The Un-priced Part consists of Notice Inviting Tender, Scope of Works and Technical Specifications (Annexure III), General & Special Condition of Contract, Tentative Completion Schedule (Annexure IV), and Drawings. The Priced Part consists of Un-Priced Bill of Quantities. Bidders are requested to download the tender document and read all the terms and conditions mentioned in the tender document and seek clarification if in doubt from the Tender Inviting Authority within the stipulated time frame as mentioned in the Tender Schedule.

9. VALIDITY OF OFFER

Tendered shall keep their offer valid for acceptance for a period of 150 days from the date of opening of Technical bid as mentioned in the schedule of tender.

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10. LATE BIDS

Since the bidding is online the bidder will not be able to bid beyond the allotted time for bidding. The hard copies as mentioned anywhere in the tender shall reach to the address of communication on or before the due date of submissions. Late submission will not be accepted.

11. BID REJECTION CRITERIA

A bid may be rejected if

- i. If the bidder fails to send the Earnest Money Deposit (EMD) / Tender Fee amount.
- ii. If the bidder does not meet the pre-qualification / technical criteria and /or non-submission of documents specified.
- iii. The deviations from the terms mentioned in the document affects in any way the scope, quality and performance of the work.
- iv. The bids of any Bidder may be rejected if a conflict of interest between the bidder and the company is detected at any stage.
- v. If the bidder send their offer either in Hard Copies or the copy is uploaded in the designated platform of website.

Above all, M/s Balmer Lawrie & Co Ltd. reserves the right to accept or reject any or every tender without assigning any reason whatsoever / or to negotiate with the bidder (s) in the manner considers suitable.

12. OPENING OF TECHNICAL BID

The technical bids will be opened online only on the date mentioned in the tender schedule. The supporting documents will be opened in presence of competent authority.

13. OPENING OF PRICE BID

The price bid of qualified bidders shall only be opened. Process of opening the price bid is also online.

14. TENDER DEVIATIONS

It is expected that bidders will submit their bid strictly based on the terms and conditions and specifications contained in the bidding documents and will not stipulate any deviations. Should it, however, become unavoidable, deviations should be separately and specifically stipulated only in

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the "Check List and Deviation Sheet" (Annexure V). Deviations mentioned anywhere else in the offer other than the "Check List and Deviation Sheet"(Annexure V) shall not be acceptable for bid evaluation. Deviation from technical specifications, as given in the Tender Document-Annexure – III, would invite immediate dis-qualification from further consideration of the bid.

BL reserves the right to reject as non-responsive any bid containing major deviation(s).

15. LANGUAGE OF BIDS

The Bid prepared by the bidder, all documents attached to and/or relating to the bid and all correspondence exchanged by the Bidder and BL shall be written in English language only.

16. BID SIGNING

All signatures in bids shall be dated and shall bear a seal/stamp of the bidder. In addition, all pages of the bids before submission of the bid shall be initialled at lower right hand corner by the Bidder or by a person holding a Power of Attorney authorizing him to sign on behalf of the bidder.

17. TENDER SUBMISSION

The bidder would be required to register on the e-procurement site <https://balmerlawrie.eproc.in> and submit their bids online.

For registration and online bid submission bidder may contact the following officials at the HELP DESK of M/s C1 India on browsing to the website <https://balmerlawrie.eproc.in> during business hours (10:00 a.m. to 06:30 p.m.) from Monday to Friday (Excluding holidays of the Company):

Ritabrata Chakraborty	ritabrata.chakraborty@c1india.com	+91-86979 10411
Ujjal Mitra	ujjal.mitra@c1india.com	+91-77026 69806
Rajesh Kumar	rajesh.kumar@c1india.com	+91-96504 65143

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The bidder shall authenticate the bid with his Digital Certificate for submitting the bid electronically on e-procurement platform and the bids not authenticated by digital certificate of the bidder will not be accepted on the e-procurement platform.

All the bidders who do not have digital certificates need to obtain Digital Certificate (**with both Signing and Encryption Components**). They may contact help desk of M/s C1 India.

The bidder shall invariably furnish the original DD towards Tender fee and DD/BG towards EMD to the tender inviting authority so as to reach on or before the due date and time of the Tender either personally or through courier or by post and the receipt of the same within the stipulated time shall be the responsibility of bidder. The Company shall not take any responsibility for any delay or non-receipt. If any of the documents furnished by the bidder is found to be false/fabricated/bogus, the bidder is liable for black listing, forfeiture of the EMD, cancellation of work and criminal prosecution.

The bidder has to keep track of any changes by viewing the Addendum / Corrigenda issued by the Tender Inviting Authority on time-to-time basis in the e-Procurement platform. Only at the time of inviting offers, there will be a paper ad. There will be no further paper advertisement on this. Interested parties have to keep referring to the website for further information. The Company calling for tenders shall not be responsible for any claims/problems arising out of this.

The bidder should complete all the processes and steps required for bid submission. The successful bid submission can be ascertained once acknowledgement is given by the system through bid submission number after completing all the process and steps. M/s C1 India or Balmer Lawrie will not be responsible for incomplete bid submission by users. Bidders may also note that the incomplete bids will not be saved by the system and are not available for the Tender Inviting Authority for processing.

The Company (Balmer Lawrie & Co. Ltd.) nor the service provider (M/s C1 India) is responsible for any failure or non-submission of bids due to failure of internet or other connectivity problems or reasons thereof.

The hardcopies as explained above should reach the office addressing Snehal Piyush, Senior Manager, SBU-Logistics Infrastructure, Balmer Lawrie & Co. Ltd at 21, Netaji Subhas Road, Kolkata – 700 001, on or before the due date of submission of tender.

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18. SELECTION CRITERIA

For reference, the BOQ format is given in Annexure X, which should be filled online only and no hard copies of the same are required to be send. The final selection would be based on L1 Criteria.

For, **Balmer Lawrie & Co Ltd**

RAKESH R. CHOUDHARY
(Project Leader - Cold Chain)

GENERAL CONDITIONS OF CONTRACT

19. DEFINITIONS

1.00 GENERAL

The following expressions hereunder and elsewhere in the contract documents used shall have the following meanings hereunder respectively assigned to them except where the context otherwise requires:

- 1.01 The "Owner / "Employer" shall mean M/s Balmer Lawrie & Co. Ltd., a company incorporated in India and having its registered office at 21, Netaji Subhas Road, Kolkata - 700 001 and shall include its successors and assignees.
- 1.02 "Consultant" shall mean the party or parties who is providing the Architectural and Detailed Engineering Design. The Consultant for this project is M/s NABCONS which is a subsidiary of NABARD.
- 1.03 "Bidder" or "Bidders" shall mean those parties who have submitted their offer to the Owner in response to the Tender.
- 1.04 "Tender Document" shall mean the Tender Documents comprising Part I (Un-priced Bid) – which consists of Notice Inviting Tender, General Conditions of contract, Special Conditions of Contract, Technical Specification, Completion Schedule, Drawings / Sketches, Data Sheets, Addenda / Corrigenda to the tender document issued by the Owner, Form of Tender and Part II (Price Bid) - Unpriced Schedule of Works.

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- 1.05 The "Contractor / Successful bidder" shall mean the bidder selected by the Owner for the performance of the work and shall include the successors and Owner permitted assigns of the Contractor.
- 1.06 The "Sub-contractor" shall mean any person or firm or company (other than the Contractor) to whom any part of work has been entrusted by the Contractor with the written consent of the BL.
- 1.07 The "Project" shall mean **Design, Supply, Installation, Testing and Commissioning of H.T. & L.T. Electrical Works for Temperature Controlled Warehouse at Medchal, Hyderabad.**
- 1.08 "Site" shall mean all such land, waters and other places on, under, in or through which the works for the Project are to be performed under the Contract.
- 1.09 "Inspecting Authority" means Third Party Inspection Agency (TPIA) as specified by the Owner/Consultant or Owner's authorised representative or Consultant's representative.
- 1.10 The "Work" and "Scope of Work" shall mean the totality of the work by expression or implication envisaged in the contract and shall include all material, equipment and labour required for or relative or incidental to or in connection with the commencement, performance or completion of any work and/or for incorporation in the work.
- 1.11 The "Works" shall mean the product(s) of the work and shall include all extras, additions, alterations or substitution as required for the purpose of the contract.
- 1.12 The "Contract Documents" shall mean collectively Tender Documents and the Contract Documents as laid out in the Owner's Standard Contract Format which is based on the General & Special Conditions of Contract.
- 1.14 The "Specification(s)" shall mean the various specifications as set out in the technical specifications forming part of the tender documents and as referred to and derived from the contract and any order(s) or instruction(s) thereunder, and the absence of any specifications as aforesaid covering any particular work or part of portion thereof, shall mean the relevant Indian Standard Institution Specifications for or relative to the particular work or part thereof, and in the absence of any Indian Standard Institution Specifications covering the relative work or part or portion

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thereof, shall mean the standards or specifications of any other country applied in India as a matter of standard engineering practice and approved in writing by the BL.

- 1.18 "Order" and "Instruction" shall respectively mean any written Order or Instruction given by BL within the scope of their respective powers in terms of the Contract and shall include alteration / variation order to effect additions to or deletion from and / or alteration in the work detailed in the contract.
- 1.19 "Plans" and "Drawings" shall mean maps, plans, drawings, sketches, tracings and prints forming part of the tender documents and any details or working drawings, amendments and/or modifications thereof approved in writing by the BL or any agency notified by the BL to the Contractor for the purpose and shall include any other drawings or plans in connection with the work as may from time to time be furnished by or approved in writing by the BL.
- 1.20 "Completion Certificate" shall mean the Certificate to be issued by the BL after the work has been completed to his satisfaction.
- 1.21 "Period of Liability" or "Defect Liability Period" refers to the Specified period from the date of completion of the entire work as indicated in the completion certificate up to the date of issue of Final Certificate during which the contractor is responsible for rectifying all defects "free of cost" to the satisfaction of Owner.
- 1.22 "Agreed Variation" shall mean the statement of Agreed Variation annexed to the Acceptance of Tender or a further Amendment to the Contract forming part thereof.
- 1.23 "Acceptance of Tender" shall mean the Acceptance of Tender issued by the Owner to the Contractor.
- 1.24 The "Total Contract Value" shall up to calculation of the entire remuneration due to the Contractor in terms of the Contract, on successful completion of the works means the total contract value as specified in the Acceptance of Tender and after calculation of the entire remuneration due to the Contractor under the contract, on successful completion of the works shall mean the totality of such remuneration.
- 1.25 "Written Notice" or "Notice" in writing shall mean all hand written, typed / printed/ e-mail form sent (unless delivered personally) or proved to have been received by registered post to the last

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known address / private / business or registered office, of the contractor and shall be deemed to have been received in the ordinary course of post it would have been delivered.

- 1.26 "Letter of Intent" shall mean intimation by a letter to the successful bidder that the tender has been accepted in accordance with the provisions contained therein.
- 1.27 "Progress Schedule" shall mean the time schedule of Progress of Work.
- 1.28 The "Alteration Order or Variation Order" means Order given in writing by the Owner to effect additions to or deletions from and alterations in the work.

20. INTERPRETATION OF GENERAL CONDITIONS OF CONTRACT

The general conditions shall be read in conjunction with the other conditions of contract, special conditions of contract, Technical Specifications etc. and shall be considered as an extension and not in limitation of the obligations of the Contractor. In case of discrepancy, if any, between these conditions the precedence shall be as stated elsewhere in the special conditions of contract.

21. HEADINGS / TITLES

All headings & Titles/Notices to the clauses, specifications /drawings are solely for the purpose of indicative reference and not as summary of the contents and thus shall not be deemed to be part of the clauses of the contract.

22. SINGULAR AND PLURAL

Unless otherwise stated or repugnant to the context the singular shall include plural and vice-versa.

23. NON-TRANSFERABILITY OF TENDER DOCUMENTS

Tender documents shall remain be the property of the Owner and if obtained by any intending bidder, shall not be utilisable for any other purpose without the consent of the Owner.

24. BIDDERS RESPONSIBILITY TO COLLECT ALL REQUIRED DATA

- (i) The bidder should study all tender documents carefully, understand the condition / drawing / specification etc. before quoting. If there are any doubts about tender conditions he should obtain clarification from **Mr. Rakesh Choudhary (Mobile +919866400155)** within the stipulated time period. This shall not be the justification for late submission or extension, compensating

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date or time to the tender. All tender documents shall govern the contract, shall form part of the contract and shall be binding during the execution till completion of work.

- (ii) Under no circumstances, Tenders may be withdrawn or modified after submission to the Owner. Negligence on the part of the Bidder in preparing his tender confers no right for withdrawal or modification of his tender after the tender has been opened.

25. PRICE BID

- I. Bidders should refer the detail description for each item mentioned in Annexure X, for some technical reasons the detail descriptions are not defined in the Price Bid Format.
- II. Bidders are required to quote the most competitive offer for the work as per the enclosed specification and details available therein.
- III. The lowest bidder will be decided on the basis of lowest quoted value in Indian Rupee mentioned in Annexure X, which is to be quoted online only and not in the hard copies. Submission in the hard copies shall not be accepted and the bid will be rejected.
- IV. The Price Bid should not contain any information other than the price.
- V. Incomplete / Conditional tender or quotation or those received late and / or not conforming to the terms and conditions in the tender documents will liable to get rejected.
- VI. After "Un-priced" bids are evaluated, bidders whose bids are found acceptable may be invited for discussions for exchange of clarifications required, if any. At that stage, depending on the merits of the case, opportunity may be given to amend the "Priced" bids already received along with the un-priced bids, but not opened until then. Such amendments or revisions would need to be submitted again through on-line only within the time line given by BL. Tenders indicating counter proposals or deviations are liable to be rejected.
- VII. Bidders are expected to quote rate for each item after careful analysis of cost involved for the performance of the completed item considering all Specifications and conditions of Contract. In case it is noticed that the rates quoted by the Bidder for any item are unusually high or unusually low it will be sufficient cause for the rejection of the Tender unless the Owner (tender inviting authority) is convinced about the reasonableness of the rates on scrutiny of the analysis for such rate to be furnished by the Bidder on demand.

26. SUBMISSION OF TENDER

The mode of tender submission shall be strictly as defined in the Notice Inviting Tender.

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27. RIGHT TO ACCEPT OR REJECT TENDER

The Tender inviting authority/Owner reserves the right to accept or reject any or every tender without assigning any reason whatsoever / or to negotiate with the bidder(s) in the manner the Owner considers suitable. The work may be split up if considered expedient.

28. EARNEST MONEY DEPOSIT

Earnest Money Deposit Amount of Rs. 60000.00 (Rs. Sixty Thousand Only) to be submitted in the form of Pay order / Demand Draft / Bank Guarantee (Format as per Annexure I) in Favour of Balmer Lawrie & Co. Ltd, payable at Kolkata.

The Demand Draft/Pay order has to be made from a Scheduled Indian Bank. Cheque / Cash payment is not acceptable towards EMD. If the EMD is in the form of a BG then the validity of the same shall be 90 Days from the date of opening of the technical bid.

For MSME and NSEI certified bidders are exempted from paying the EMD amount, however the supporting documents are required to be submitted in support of the claim.

Bidders should note the following points with respect to EMD,

- a. Offer received without EMD will be rejected.
- b. For the successful bidder, the EMD will be refunded only after they submit the necessary Security Deposit against the work order placed on them. EMD will carry no interest.
- c. For the unsuccessful bidders, the EMD will be refunded only after the successful bidder has accepted the Purchase order and the acknowledgment of the same has been received by BL.
- d. Linking of EMD amount with earlier transactions / adjustments with pending bills or any other amount payable by the company is not allowed.

EMD is liable to forfeiture in the event of:

- a. Withdrawal of offers during validity period of the offer.
- b. Non acceptance of orders by the bidder within the stipulated time after placement of LOI/ P.O.
- c. Any unilateral revision made by the bidder during the validity period of the offer.
- d. Non execution of the prescribed documents after acceptance of the contract.
- e. Non submission of Security Deposit.

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29. SECURITY DEPOSIT

Security Deposit at the rate of 5% of the total contract value to be deposited by the successful Bidder in the form of Pay order / Demand Draft or Bank Guarantee in Favour of Balmer Lawrie & Co. Ltd, payable at Kolkata.

Successful bidder will have to submit Security Deposit within 21 days of the receipt of the purchase order by Pay Order / Demand Draft drawn in favour of Balmer Lawrie & Co. Ltd., payable at Kolkata or Bank guarantee valid for 6 months or the successful completion of work whichever is later for an equivalent amount as per the Company's format given in Annexure VI.

The Security Deposit if paid by Pay Order/Demand Draft shall bear no interest and shall be refunded through Bank transfer to successful bidder only on successful commissioning of the total work.

All sums of compensation or other sums of money as determined, if any; payable by the bidder may be deducted from the Security Deposit.

The Security Deposit amount can be adjusted to the extent of EMD amount for the successful bidder.

Security deposit is liable to forfeiture in the event of:

- Non Supply after Acceptance of Order.
- Successful Bidder fails to deliver the materials as per the terms & condition of the Purchase Order.
- Successful Bidder violates the tender conditions.
- If the performance of the bidder is found to be unsatisfactory.

30. VALIDITY OF OFFER

The validity of the tender for the purpose of acceptance shall be 150Days from the date of opening of technical bid. During this period, bidder shall not be entitled to modify, revoke or cancel his tender without the consent of Owner in writing. In case of successful bidder only, validity shall be until the work is completed to the satisfaction of the Owner and so certified in writing by the Owner or their accredited representative.

31. SITE INFORMATION, CLIMATIC CONDITION ETC.

The bidder shall be deemed to have satisfied themselves regarding site condition, access, communication facilities, local conditions, climatic conditions including wind, monsoon period, rainfall, temperatures etc. and shall be deemed to have included the impact of these factors within their quoted rates. Contractor should visit the site and familiarise themselves thoroughly before

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submitting the tender. For the purpose, the contractors are required to contact **Mr. Rakesh Choudhary (Mobile +919866400155)**.

32. CONSTRUCTION WATER

The contractor has to make his own arrangement for both construction water and drinking water. The Owner does not undertake to supply water to the contractor.

33. CONSTRUCTION POWER

The contractor has to make his own arrangement for construction power however if the owner will supply the power then the same shall be on chargeable basis.

34. ACCOMMODATION FOR LABOUR & SUPERVISORY STAFF

The Contractor shall make his own arrangements for accommodation of his labour and supervisory personnel. No accommodation for labour & supervisory staff shall be provided within the site premises.

35. INSTALLATION AND COMMISSIONING

All the work shall be executed in strict conformity with the provisions of the Contract Document and with such explanatory detailed Drawings, Specifications and Instructions as may be furnished from time to time to the Contractor by the BL, whether mentioned in the Contract or not. The Contractor shall be responsible for ensuring that Work throughout are executed in the most substantial proper and workmanlike manner with the quality of material and workmanship in strict accordance with the Specifications. The contractor is also responsible to follow all the safety procedure during executions.

36. CO-ORDINATION AND INSPECTION OF WORK

- (i) The co-ordination and inspection of the day-to-day Work under the Contract shall be the responsibility of the BL but this will not detract the contractor's full responsibility. The written instructions regarding any particular work will normally be passed by the BL or his Authorised Representative. An instruction book will be maintained by the Contractor which the aforesaid written instructions will be entered. These will be signed by the Contractor or his authorised representative by way of acknowledgement within Twelve (12) hours. The pages in the work instruction book shall be machine numbered.
- (ii) The BL will have full power and authority to inspect the Work at any time wherever in progress either on the Site or at the Contractor's Premises / Workshops wherever situated, Premises / Workshops of any person, firm or corporation where work in connection with the Contract may be in hand or where materials are being or are to be supplied, and Contractor shall afford or procure for the BL, every facility and assistance to carry out such

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inspection. Contractor shall, at all time during the usual working hours and all other times at which reasonable notice of the intention of the BL or his representative to visit the Work shall have been given to Contractor, either himself be present to receive orders and instructions, or have a responsible person duly accredited in writing present for the purpose.

37. GENERAL CONDITIONS DURING INSTALLATION AT SITE

- (i) There is no restriction in working time. The decision on necessity of shift working at two (2) or three (3) shifts per day is totally on to the contractor however the same should be informed to the owner before implementing the same. No extra claims will be entertained by the Owner on this account.
- (ii) The Contractor must arrange for the placement of workers in such a way that the delayed completion of the Work or any part thereof for any reason whatsoever will not affect their proper employment. The Owner will not entertain any claim for idle labour payment whatsoever.
- (iii) The Contractor shall arrange one competent Supervisor to be present at site at all times during the progress of the work, who shall be duly authorised to take instructions and execute them on contractor's behalf.
- (iv) It is the responsibility of the contractor to provide the marking, do the cutting in wall or insulated panels and laying of conduits and making it good after fixing the conduits or any such accessories.
- (v) The contractor shall make his own arrangement for security of the supplied materials, owner shall not be held responsible for safety of supplied materials required for installation.

38. DRAWING TO BE SUPPLIED BY THE OWNER

- (i) Drawings attached with this Tender shall be for the general guidance to the bidder to enable him to visualise the type of Work contemplated and Scope of Work involved.
- (ii) Architectural plan, sections and elevation shall be provided by the owner for the reference only.

39. DRAWINGS TO BE SUPPLIED BY THE CONTRACTOR

The contractor is required to prepare the detail GA (General Arrangement) drawings, all electrical related drawings required by the consultant or owner shall be submitted for reference and approval and accordingly after approval from the consultant or owner the contractor can execute at site.

40. REPORTS AND RECORDS

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The contractor shall always keep all the relevant details regarding purchase of materials, manufacturer test reports and other quality reports readily available all the time for inspection by BL.

41. DISCREPANCIES BETWEEN INSTRUCTIONS

Should any discrepancy occur between the various instructions furnished to Contractor, his staff or any doubt arise as to the meaning of any such instructions or should there be any misunderstanding between Contractor's staff and the BL's staff, Contractor shall refer the matter immediately in writing to the BL whose decision thereon shall be final and conclusive and no claim for losses alleged to have been caused by such discrepancies between instructions, doubts, or misunderstanding shall in any event be admissible.

42. LIQUIDATED DAMAGE

In case, the successful bidder fails to execute the job within the stipulated period as per the Purchase Order, BL without right or prejudice to any right or remedy available may recover from the supplier/contractor Liquidated Damages and not by way of penalty a sum calculated at @ 0.50% of the Total Purchase Order Value, per completed week up to a maximum of 5% of the total Purchase Order value.

43. DELAY DUE TO FORCE MAJEURE

In the event of causes of force Majeure occurring within the agreed delivery terms, the delivery dates can be extended by the Owner on receipt of application from the bidder within stipulated delivery period. Only those causes that depend on natural calamities, civil wars, national strikes and strikes /lockout at contractor's works place which have duration of more than seven consecutive calendar days are considered the causes of Force Majeure. The contractor must advise BL by a registered letter duly certified by local chamber of commerce or statutory authorities, the beginning and end of cause of delay immediately, but in no case later than 10 days from the beginning and end of such cause of Force majeure condition as defined above.

BL reserves the right to ask contractor to suspend despatches of goods/materials covered by this order for such period as they may think fit in the event of strikes, accidents or other causes beyond BL's control.

44. PERIOD OF LIABILITY

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Defect liability period shall be 24 Months from the date of successful installation, commissioning and handing over to BL followed by issuance of a completion certificate by BL. Any damage or defect that may arise or lie undiscovered at the time of issue of completion certificate, connected in any way with the materials supplied by him or in the workmanship shall be rectified or replaced by Contractor at his own expense the owner may cause the same to be made good by other workmen and deduct expenses (of which the certificate of BL shall be final) from any sums that may be then or at any time thereafter, become due to Contractor or from his Security Deposit, or the proceeds of sale thereof, or of a sufficient portion thereof. During the Defect Liability Period, BL will not engage any agency for AMC (Annual Maintenance Contract).

45. RIGHT OF OWNER TO TERMINATE THE CONTRACT

Without prejudice to BL's right to price adjustment by way of discount or any other right or remedy available to BL, BL may terminate the Contract of any part thereof by a written notice to the contractor if :

- i. The contractor fails to comply with any material term of the Contract.
- ii. The contractor informs BL of its inability to deliver the materials as per the technical specifications and bill of quantities.
- iii. The contractor becomes bankrupt or goes into liquidation.
- iv. The contractor makes a general assignment for the benefit of creditors.
- v. A receiver is appointed for any substantial property owned by the contractor.
- vi. The contractor has misrepresented to BL, acting on which misrepresentation BL has placed the Purchase Order to the bidder.

Upon receipt of said termination notice, the contractor shall immediately discontinue the work on the Contract.

On termination of the contract, without prejudice to any other right or remedy available to BL under the contract, in the event of BL suffering any loss on account of delayed delivery or non-delivery, BL reserves the right to claim and recover damages from the contractor in respect thereof. The EMD / Security Deposit will be forfeited and the Bank Guarantee for any advance paid with Purchase Order will be encased in such case.

46. PATENTS AND ROYALTIES

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Contractor, if licensed under any patent covering Equipment, Machinery, Materials or compositions of matter to be used or supplied or methods and process to be practiced or employed in the performance of this Contract, agrees to pay all royalties and license fees which may be due with respect thereto. If any Equipment, Machinery, Materials, Composition matters, to be used or supplied or methods and process to be practiced or employed in the performance of this Contract, is covered by a patent under which the Contractor is not licensed then the Contractor before supplying or using the Equipment, Machinery, Materials, compositions method or processes shall obtain such licenses, and pay such royalties and license fees as may be necessary for performance of the Contract. In the event the Contractor fails to pay any such royalty or obtain any such license any suit for infringement of such patents which is brought against the Contractor or the Owner as a result of such failure will be defended by the Contractor at his own expense and the Contractor will pay any damages and costs awarded in such suit.

47. PERFORMANCE GUARANTEE & WARRANTY

- (i) Performance Guarantee: The Contractor shall furnish the following in a Rs. 100 Stamp Paper
 - a. That the material of construction and workmanship of work done and any fittings designed / manufactured / supplied by him are as specified in the tender schedule and wherever there is nothing specifically mentioned shall correspond to the best available grade and quality as required for the application.
 - b. That the work done and any fittings designed, manufactured, supplied, erected shall be as per prevailing relevant standard, codes and statutory practices / stipulations.

(ii) Warranty:

The Contractor will repair and/or replace all defective parts, components / fittings, accessories etc. which shall be notified to him in writing within the Defect Liability Period. Such defective parts, components, fittings, accessories etc. should be promptly rectified and replaced by him free of cost. The contractor will provide similar warranty on the parts, components, fittings, accessories etc. repaired and/or replaced.

48. CONTRACTOR'S RESPONSIBILITY TOWARDS OTHER AGENCIES

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Without repugnance to any other condition, it shall be the responsibility of the Contractor to work in close co-operation and co-ordinate the work with the Civil, Insulation and Electrical or other Agencies or their authorised representatives where required. No claim shall be entertained on account of the above.

49. ARBITRATION

Any dispute or difference arising under this Contract shall be referred for adjudication at Kolkata to a sole arbitrator to be appointed by the Chairman & Managing Director, Balmer Lawrie & Co. Ltd. and the provisions of Arbitration and conciliation Act, 1996 including any statutory modifications or enactment thereof shall apply to the Arbitration proceedings. The fees of the arbitrator, if any, shall be paid equally by both the parties.

50. TESTING AND INSPECTION

The contractor shall carry out all the relevant test, adjustments and inspection before dispatch of the materials defined in the technical specifications. The contractor shall inform BL of their state of readiness to carry out the test prior to dispatch to enable BL at its discretion may plan & organize for the Inspection & Testing by its own personnel or from any third party.

The contractor's responsibility shall also not in any way be reduced or discharged because BL or BL's representative(s) or Inspector(s) shall have examined or commented on the contractor's drawings or specifications or shall have witnessed the tests or shall have stamped or approved or certified any Material(s).

BL shall have the right to reject the same even after supply of materials at site and hold the contractor liable for non-performance of the Contract.

The contractor further undertakes to replace free of cost any spares / machine, if found not to conform to the guarantees aforesaid at any time during the defect liability period applicable thereto. BL shall give written notice of the defect and of the rejection of the defective spares / machine, to the contractor.

51. PAYMENTS AND PRICE ESCALATION

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- (i) The price to be paid by Owner to Contractor for the work to be done and for the performance of all the obligations undertaken by Contractor under Contract shall be ascertained by the application of the respective Schedule of Rates (there of application but not of limitation, with the succeeding sub-clause of this clause) and payment to be made accordingly for the work actually executed and approved by the BL. The sum so ascertained shall (except only as and to the extent expressly provided herein) constitute the sole and inclusive remuneration of Contractor under Contract and no further or other payment whatsoever shall be or become due or payable to the Contractor under Contract.
- (ii) The prices/rates quoted by Contractor shall remain firm till the issue of final certificate and shall not be subject to escalation. Schedule of Rates shall be deemed to include and cover all costs, expenses and liabilities of every description and all risks of every kind to be taken in executing, completing and handing over Work to Owner by Contractor. Contractor shall be deemed to have known the nature, scope, magnitude and the extent of Work and materials required though Contract Document may not fully and precisely furnish them. He shall make such provision in the Schedule of Rates as he may consider necessary to cover the cost of such items of Work and materials as may be reasonable and necessary to complete the Work. The opinion of the BL as to the items of work which are necessary and reasonable for completion of Work shall be final and binding on Contractor, although the same may not be shown on or described specifically in Contract Document.

Generality of this present provision shall not be deemed to cut down or limit in any way Contractor's obligation under the Contract, because in certain cases it may and in other cases it may not be expressly stated that Contractor shall do or perform a work or supply articles or perform, services at his own cost or without additional payment or without extra charge or work to the same effect or that it may be stated or not stated that the same are included in and covered by the Schedule of Rates.

- (iii) The time period for release of payment shall be 15 Days after certification of bills along with verification of all the supporting documents.
- (iv) The payment shall be released after deduction of all applicable taxes.

52. ADVANCE PAYMENT

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The advance payment shall be done as per the Payment terms and conditions defined in Clause no. 71

53. NOTICE OF CLAIM FOR ADDITIONAL PAYMENT

Should Contractor consider that he is entitled to any extra payment or compensation or to make any claims whatsoever in respect of Work he shall forthwith give notice in writing to the BL that he claims extra payment and/or compensation. Such notice shall be given to the BL within ten (10) days from the ordering of any Work or happening of any event upon which Contractor bases such claims and such notice shall contain full particulars of the nature of such claim with full details and amount claimed. Failure on the part of Contractor to put forward any claim with necessary particulars as above within the time above specified shall be an absolute waiver thereof. No omission by Owner to reject any such claim and no delay in dealing therewith shall be waiver by Owner of any rights in respect thereof.

54. COMPLETION CERTIFICATE

- i. When Contractor fulfils his obligation under clauses he shall be eligible to apply for Completion Certificate. Contractor may apply for separate Completion Certificate in respect of each such portion of Work by submitting the completion Documents along with such application for demand of Completion Certificate.

The BL shall normally issue to Contractor the Completion Certificate within one(1) month after receiving an application therefore from Contractor after verifying from the completion documents and satisfying himself that work has been completed in accordance with and as set out in the construction and erection drawings, and the Contract Document and rectification of defects if any.

Contractor, after obtaining the Completion Certificate, is eligible to present the Final Bill for Work executed by him under the terms of Contract.

- ii. Within one (1) month of completion of work in all respects, Contractor shall be furnished with a certificate by the BL, of such completion.
- iii. For the purpose of clause, the following Documents will be deemed to form the completion Documents:
 - a. The technical documents according to which Work was carried out.

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- b. Three (3) sets of As Built GA Drawings duly approved by the consultants in hard copy showing therein the modification and corrections made during the course of execution. These drawings shall be showing layouts and cable routing, earthing, lighting system etc., as installed.
- c. Warranty/Guarantee certificate of Motors, Controllers, fixtures and fittings, Transformers, UPS or any other electrical equipment.
- d. Manufacturer's Operational and Maintenance Manuals for supplied items.
- e. Test results after consultant's acceptance.
- f. Contractor's instructions for routine maintenance of the work.
- g. Any other drawings/ details seemed necessary by the owner for satisfactory maintenance of the work.
- h. List of recommended spares for 2 years of operations.
- i. Relay co-ordination details.
- j. Quality Assurance Plan.
- k. Catalogues of major equipment.
- l. Commissioning reports and settling parameters.
- m. Release order by authorities.
- n. Commissioning documents with TSSPDCL.
- o. Acknowledgment / Memos etc.,
- p. Approval and NOC's in originals.
- q. Dos and Don'ts.

55. **FINAL CERTIFICATE**

Upon expiry of defect liability period and subject to the BL being satisfied that work have been duly maintained by Contractor, during such period as hereinbefore mentioned and that Contract has in all respect duly made up any subsidence and performed all his obligations under Contract, the BL shall (without prejudice to the rights of Owner to retain the provisions of relevant clause hereof) otherwise give a certificate herein referred to as the final certificate to that effect and Contractor shall not be considered to have fulfilled the whole of his obligations until Final Certificate shall have been given by the Owner notwithstanding any previous entry upon Work and taking possession, working or using of the same or any part thereof by Owner. Contractor shall provide Owner with a certified satisfactory to both that all privileges, liens, claims, obligations and liabilities against or

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chargeable to the Owner have been fully paid, satisfied and released and that Contractor has no claim(s) against Owner.

56. CERTIFICATE AND PAYMENTS ON EVIDENCE OF COMPLETION

Except the final certificates no other certificate or payments against a certificate or on general account shall be taken to be an admission by Owner of the due performance of Contract or any part thereof or occupancy or validity of any claim by Contractor.

57. HSE COMPLIANCE

The Contractor shall adhere to safe construction practice and guard against hazardous and unsafe working conditions and shall comply with Owner's safety rules during execution at site. An annexure regarding the safety compliance is enclosed as Annexure – VII, the bidder is required to fill, sign and stamp the same and submit along with the technical submission.

58. RULES REGULATIONS & INSURANCE COVERAGE

- a. The successful tenderer and his man shall abide by all rules/regulations in force at a location and the laws, by-laws and statutes of Government / Semi-Government and other local authorities such as requirements / liability under enactments, Contract Labour Act etc. and the Company shall stand indemnified against by claims on these scores, an undertaking on that respect is to be furnished by the contractor.
- b. The Contractor shall conform to the provisions of Acts, rules, orders or notifications of any Governments, Municipal or local authority for the time being in force affecting the work undertaken by him and will give all necessary notices to and obtain requisite sanction and permits of and from the Municipal and any other authority in respect of the said work or the materials to be used there at and generally will comply with the building and other regulations of such authorities and will keep the Company indemnified against all claims, penalties and losses that may be incurred by it by reason of any breach by the Contractor of any statutes by-laws, rules, regulations, notifications etc.
- c. The Contractor shall obtain authority (ies) designated in this behalf under any applicable laws, rule or regulation (including) but not limited to Contract Labour (in so far as applicable) any and all such license(s) consent(s), registration(s) and/or other authorisation(s) as shall from time to time be or become necessary for or relative to the execution of the work or any part or portion thereof or the storage or supply or any material(s) or otherwise in connection with the performance of the contract and shall at all times observe and ensure due

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observance by the sub-contractors, servants and agents of all terms and conditions of the said license(s) consent(s) regulation(s) and other authorisation(s) and laws, rules and regulations applicable thereto.

- d. The Contractor undertakes to ensure due and complete compliance with all laws, regulations, rules, etc., applicable to the workmen employed or whose services are otherwise availed of by the Contractor, whether in connection with the construction work at the site or otherwise. The Owner shall have the right to inspect the records maintained by the contractor, Contractor shall whenever required by the Owner or its representative, produce such records and as and when the Owner or its representative may call upon the Contractor, ascertain whether or not the requirements of all such laws, regulations, rules etc. coming to light whether as a result of such inspection or otherwise, the Owner shall have the right to require the contractor to effect such compliance within such time, as the Owner may prescribe in that behalf and in the event of the Contractor failing to effect such compliance within the time prescribed by the Owner, then the Owner shall without prejudice to his other rights, be entitled to withhold from the amount payable to the contractor under any such laws, regulations or rules and to make payment thereof to the workmen. The Owner shall also have in that event the right to terminate the contract with immediate effect and to exercise powers reserved to the Owner under the contract as a result of termination.

59. TAXES, DUTIES, OCTROI & OTHER STATUTORY PAYMENTS

Contractor agrees to and does hereby accept full and exclusive liability for the payment of any and all taxes, duties, Octroi, CESS, VAT, service tax etc. now or hereafter imposed, increased, or modified and all the sales taxes, duties, octroi, CESS, VAT, service tax etc. now enforce and hereafter increased, imposed or modified from time to time in respect of Work and materials and all contributions and taxes for unemployment compensation insurance and old age pensions or annuities now or hereafter imposed by any Central or State Governmental Authorities which are imposed with respect to or covered by the wages, salaries, or other compensations paid to the persons employed by Contractor and Contractor shall be responsible for compliance with obligations and restrictions imposed by the Labour Law or another law affecting employer employee relationship and Contractor further agrees to comply, and to secure the compliance of all Sub-contractors, with applicable Central, State Municipal and local laws and regulations and requirements of any Central, State or Local Employment Agency or authority, Contractor further agrees to defend, indemnify and hold harmless from any liability or penalty which may be imposed by the Central, State or Local authorities by reason of any violation by contractor or

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Sub-contractor of such laws, regulations or requirements and also from all claims, suits or proceedings that may be brought against Owner arising under, growing out of, or by reason of work provided for by this Contract, by third parties, or by / central or State Government Authority or any administrative sub-division thereof.

60. LABOUR LAWS

- a. No Labour below the age of eighteen (18) years shall be employed on Work. In case female workers are engaged, requisite provisions shall be made as per the statute.
- b. Contractor shall not pay less than what is provided under law to labourers engaged by him on Work.
- c. Contractor shall at his expense comply with all labour laws and keep Owner indemnified in respect thereof.
- d. In addition to above, rules and regulations as contained in Contract Labour (Regulation and Abolition) Act, 1970 will also be applicable for this contract.
- e. Contractor shall secure full safety of the workers / employees engaged by him in the Site premises and shall take at his own cost, insurances and such other safety regulations for the said purpose.

61. IMPLEMENTATION OF APPRENTICES ACT 1964

Contractor shall comply with the provisions of the Apprentices Act, 1964 and the Rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of Contract and the Engineer-in-Charge may, at his discretion, cancel Contract. Contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provision of the Act

62. INSURANCE

Contractor shall at his own expense carry out and maintain insurance with reputable companies to the satisfaction of the Owner as follows:

(i) Workmen's Compensation and Employees' Liability Insurance:

Insurance shall effect for all contractors' employees engaged in the performance of this Contract. If any of the work is sublet, after necessary approval by the Owner, the contractor shall require the Sub-contractor to provide Workmen's Compensation and Employees' Liability Insurance for the Sub-contractor's employees, if such employees are not covered under the Contractor's Insurance.

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(ii) **Contractors All Risk Insurance:**

Contractor shall take out an All Risk Insurance policy in the Joint names of the Owner and the Contractor (owner as the first beneficiary) including third party liability, against loss or damage from any cause covering the work executed to the estimated current contract value together with the material for incorporation in the work. Such insurance shall be in such a manner that Owner and the Contractor are covered from the date of commencement of work.

The contractor shall indemnify the Owner against all losses and claims in respect of injuries or damage to any person, including any employee of the Owner, material or physical damage to any property whatsoever including that of the owner arising out of the execution of the works or in the carrying out of the contract, and shall insure against his liability with an insurer until the completion of this contract in terms approved by the owner. Whenever required, the contractor shall produce the insurance policy and the current premium receipts to the Owner.

In addition to what it is stipulated above the successful contractor shall execute Indemnity Bond to indemnify and hold harmless the Owner for complying with the provision of the following:

- a. Provident Fund Act for P.F. Scheme for labourers engaged by the Contractor / Subcontractors.
- b. Interstate Migrant Workmen ("Regulation of Employment and Conditions of Services) Act - 1979.
- c. Minimum Wages Act - 1948.
- d. Equal Remuneration Act - 1976.
- e. Workman's Compensation Act - 1923
- f. Contract Labour (Regulation & Abolition) Act - 1970. And any other Acts/Rules/Regulations as may be in force at the time of execution of the contract and as relevant for the execution of this contract. The legislations names above are only indicative.

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SPECIAL CONDITIONS OF CONTRACT

63. GENERAL

- a. Special conditions of contract shall be read in conjunction with the General Conditions of Contract, Specifications of work, Drawings and any other document forming part of this contract wherever the contract so requires.
- b. Notwithstanding the sub-division of the document into separate sections, every part of each shall be deemed to be supplementary of every other part and shall be read with and into the contract as far as it may be practicable to do so.
- c. Where any portion of the General Conditions of Contract is repugnant to or at variance with any provision of the Special Conditions of Contract, then unless different intention appears, the provision of the Special Conditions of Contract shall be deemed to override the provisions of the General Conditions of Contract only to the extent of such repugnancy or variations in the Special Conditions of Contract are not possible of being reconciled with the provisions of General Conditions of Contract.
- d. Whenever it is mentioned in the specifications that the contractor shall perform certain work or provide certain facilities, it is understood that the contractor shall do so at his own cost.
- e. The materials, design and workmanship shall satisfy the relevant Indian Standards, the job specifications contained herein and codes referred to. Where the job specifications stipulate requirements in addition to those contained in the standard codes and specifications, these additional requirements shall also be satisfied. In the absence of any standards/specifications / code(s) of practice for any part of the work covered in this tender, the instructions/directions of BL will be binding on the contractor.

64. LOCATION OF SITE

The site is located at Medchal in Ranga Reddy District, approximately 25 KM from Hyderabad city the complete address of the site is as under,

Survey No. 833,
Medchal Industrial Area
Village + Mondal - Medchal,
Ranga Reddy District,
Telangana - 501 401

65. VALIDITY OF TENDER

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Tender submitted by a bidder shall remain valid for acceptance for a period of 150 Days from the date of opening of technical bid and will continue thereafter to be valid until specifically revised or permitted by giving seven (7) days' notice in writing to the Owner by the bidder. Bidders shall not be entitled during the said period, without the consent of the Owner in writing, to revoke or cancel his tender or change the tender offer given or any terms thereof.

66. ACCEPTANCE OF TENDER

The Owner reserves the right to award the work in parts among two or more agencies. The quoted rates shall hold good for such an eventuality. The Owner reserves the right to reject any tenders without assigning any reasons.

67. STIPULATIONS AND DEVIATIONS TO TENDER CLAUSES

Bidders are advised to submit quotations strictly based on the terms, conditions and specifications contained in the Tender Document and not stipulate any deviations. However, if it becomes unavoidable, deviations should be stipulated with reference to the clause number, para and page number of the Tender Document. Owner reserve the right to evaluate offers containing deviations having financial implications after adding cost of such deviations as determined by the Owner.

68. ALTERATION IN SPECIFICATIONS AND DESIGN

During the execution of the work, the BL may desire to make any alterations in, omission from, additions to or substitutions from the original specifications, Drawings, Designs and Instructions that may appear to him to be necessary or advisable during the progress of work and contractor shall be bound to carry out such altered extra/new items of work in accordance with any instruction which may be given to him in writing by the BL and such alterations, omissions, additions or substitutions shall not invalidate the contract and any such altered additional or substituted work shall be carried out by the contractor on the same conditions on which he agreed to do the work.

69. DRAWINGS VIS-A-VIS SCHEDULE OF WORK

All drawings herein enclosed are for the purpose of furnishing basic information to the bidders so as to enable them to quote their rates. Detail working shall be furnished after award of the contract or progressively as per phases of work.

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70. TIME OF COMPLETION

The time schedule for total work according to the contract shall be for a period as mentioned in the Notice Inviting Tender. Within fifteen (15) days of the Award and agreed schedule, Contractor shall submit to BL the detailed programme, the content and form of which shall be satisfactory to BL showing the order to procedure and method in which he proposes to carry out the work and the time limit and sequence of carrying out the work and shall, whenever required by BL, furnish for his information particulars in writing of Contractor's arrangements for carrying out of the work. The approval by BL of such programme or the furnishing of such particulars shall not relieve Contractor of any of his duties or responsibilities under this Contract.

71. TERMS OF PAYMENT

Our payment terms shall be as follows,

- (i) 20% of work order value can be given as an Advance against submission of Bank Guarantee of equivalent amount as per the format given in Annexure –VIII and submission of Security Deposit as mentioned elsewhere. The validity of the Bank Guarantee shall be till scheduled completion of work.
- (ii) 90% of the work order value shall be paid against certified running bill of executed items after adjusting the advance paid on a proportionate basis and deduction of retention money. In other words, from the value of bill 20% will be deducted towards advance already paid, 10% towards retention and applicable taxes. The retention money shall be kept for the period mentioned in the respective clause of Defect Liability Period. The bidder can provide Performance Bank Guarantee from a Scheduled Bank valid for that period in lieu of retention money. Annexure IX can be referred for format of performance bank guarantee.
- (iii) 5% to be released towards obtaining the initial power sanction approval after deduction of 10% retention money as per above clause no. ii
- (iv) 5% to be released after obtaining final approval from the electrical department after deduction of 10% retention money as per above clause no. ii.

72. EXTRA ITEMS OF WORK

During execution of the work, should the contractor come across items of work which are not covered under the Schedule of Rate or not included therein, the Contractor shall draw the attention

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of the Owner / BL to the same and such items of work shall be treated as extra only with the prior approval of BL in writing. Contractor shall submit a quotation along with the rate analysis for such accepted extra items before he commences work or purchases the materials in connection with such items.

For extra items, rates shall be derived from similar item rates included in the schedule of work. Where there is no such similar item available in the schedule, rate shall be analysed as follows:

Rate for extra item = Cost of material (a) + cost of labour inclusive of all necessary tools, tackles, equipment, machinery and consumable (b) + supervision (c) required to carry out the work + 10% of (a+b+c) towards profit and overhead + taxes, duties etc.

73. STRICT ADHERENCE TO SPECIFICATION & CTE INSPECTION

The entire work shall require to be carried out strictly as per specifications, quality assurance plan, drawing etc., intended in the tender backed up with proper test report, manufacturers' test certificates etc. The Chief Technical Examiner of Central Vigilance Commission may inspect the work during the course of execution and also during the defect liability period. The contractor has to maintain all documents in presentable form duly reviewed and approved by the BL for any such/similar inspection.

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ANNEXURE I

PROFORMA OF BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

(ON NON-JUDICIAL PAPER OF APPROPRIATE VALUE)

To

Balmer Lawrie & Co. Ltd.
Logistics Infrastructure
21, Netaji Subhas Road
Kolkata – 700 001

Whereas (Name of the bidder) (hereinafter called “the Bidder”) has submitted its bid for the (purpose) (hereinafter called “the Bid”) against Tender reference No. dated M/S. BALMER LAWRIE & CO. LTD., 21 Netaji Subhas Road, Kolkata – 700 001.

The conditions of Tender provide that the Bidder shall pay a sum of Rs..... (Rupees only) (Hereinafter called “the said amount”) as full Earnest Money Deposit in the forms therein mentioned. The forms of payment of Earnest Money Deposit include guarantee to be executed by a Scheduled Bank.

The said (Name and address of the Bidder) have approached us and at their request and in consideration of the premises we, (Name of the Bank) having our office at (address of the Bank) have agreed to give such guarantee as herein after mentioned.

Know All Men by these presents, we, (name of the Bank) of (address of the Bank) having our office, inter alia, at (hereinafter called “the Bank”) are bound unto BALMER LAWRIE & CO. LTD..... (address) (hereinafter called “the Purchaser”) in the sum of Rs. (Rupees only) for which payment will truly be made to the Purchaser, the Bank binds itself, its successors and assigns by these presents this day of 2015.

Balmer Lawrie & Company Limited

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THE CONDITIONS of this obligation are :

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the bid form; or
2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity;
 - a) fails or refuses to execute the Contract Form if required; or
 - b) fails or refuses to furnish the Performance Security, in accordance with the instructions to Bidders.

We undertake to pay the Purchaser up to the said amount upon receipt of its first written demand, without the Purchaser having to substantiate their demand, provided that in their demand the Purchaser shall mention that the amount claimed by them is due owing to the occurrence of one or both of the two conditions.

This guarantee will remain in force upto (date of expiry) including the days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

Notwithstanding anything contained herein :

- i) Our liability under the Bank Guarantee shall not exceed Rs. (Rupees only)
- ii) This Bank Guarantee shall be valid upto
- iii) We are liable to pay the guaranteed amount or pay part thereof under this Bank Guarantee only if you serve upon us a written claim or demand on or before (last date of validity)

We, (name of the Bank) undertake not to revoke this guarantee during its currency except with your previous consent in writing.

We have power to issue this guarantee in your favour under our Memorandum and Articles of Association and the undersigned has full power to do and execute this Guarantee under the Power of Attorney dated day of 2012 granted to him by the Bank.

Your faithfully,

(Specimen Signature)

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ANNEXURE II

List of Documents Required for Prequalification

Pre-Qualification / Technical Bid

Tender Reference No. BL/LI/CC/HYD/20 Dated 04/07/2015

PRE QUALIFYING CRITERIA CLAUSE	DOCUMENT TO BE SUBMITTED	YES/NO (v)
(i)	COPY OF LICENSE ISSUED BY A COMPETENT AUTHORITY	
(ii)	AUDITAED STATEMENT/ C.A. CERTIFICATE	
(iii)	COMPLETION CERTIFICATES / WORK ORDERS	
(iv)	SELF DECLARATION	
(v)	COPY OF REGISTRATION	
(vi)	TENDER FEE IN THE FORM OF DD	
(vii)	EMD AMOUNT	

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ANNEXURE III

Tender Reference No. BL/LI/CC/HYD/20

TECHNICAL SPECIFICATIONS

1. LIST OF IEC (International Electro technical Commission) Standards

- IEC 60027 : Letter symbols to be used in electrical technology.
- IEC 60028 : International standard of resistance for copper.
- IEC 60038 : IEC Standard Voltages
- IEC 60044 : Instrument Transformers
- IEC 60050 : International Electro technical Vocabulary
- IEC 60051 : Recommendation for direct acting indicating analogue electric measuring instruments and their accessories.
- IEC 60060 : High Voltage Test Techniques.
- IEC 60062 : Marking codes for resistors and capacitors.
- IEC 60063 : Preferred number series for resistors and capacitors.
- IEC 60068 : Environmental Testing
- IEC 60071 : Insulation Co-ordination
- IEC 60073 : Basic Safety Principles for Man-machine interface, marking and identification – coding principles for indicators and actuators.
- IEC 60076 : Power Transformers.
- IEC 60085 : Electrical Insulation
- IEC 60086 : Primary Batteries
- IEC 60183 : Guide to the selection of high voltage cables
- IEC 60214 : On-load tap changers
- IEC 60228 : Conductors of Insulated Cables
- IEC 60233 : Tests on Hollow Insulators for use in Electrical Equipment
- IEC 60245 : Rubber Insulated Cables
- IEC 60255 : Electric Relays
- IEC 60269 : Low Voltage Fuses
- IEC 60287 : Calculation of permissible current in cables at steady state rating
- IEC 60296 : Mineral Insulating Oils for Transformer and Switchgear
- IEC 60309 : Plugs, Socket-outlets and couplers for Industrial Purposes.
- IEC 60331 : Tests for Electric Cables under Fire Conditions.
- IEC 60332 : Flame Retardant vs Fire Rate Cables
- IEC 60364 : Electrical Installation of Buildings
- IEC 60417 : Graphical Symbols for use on equipment

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- IEC 60445 : Basic and Safety Principles for man-machine interface.
- IEC 60446 : Wiring colours.
- IEC 60479 : Effect of current on human beings and livestock
- IEC 60502 : Power cables with extruded insulation and their accessories for rated voltages from 1KV to 30 KV
- IEC 60529 : Degrees of Protection provided by enclosures (IP Code)
- IEC 60546 : Controllers with analogue signals for use in industrial process control systems.
- IEC 60669 : Switches for household and similar fixed –electrical installations.
- IEC 60726 : Dry type power transformer.
- IEC 60728 : Cable networks for television signals, sound signals and interactive services.
- IEC 60747 : Semiconductors Devices; Part 1: General
- IEC 60748 : Semiconductor Devices – Integrated Circuits.
- IEC 60865 : Short Circuit Current: Calculation of Effects.
- IEC 60884 : Plugs and socket-outlets for household and similar purposes.
- IEC 60898 : Electrical Accessories. Circuit breakers for overcurrent protection for household and similar installations.
- IEC 60906 : IEC System of Plugs and socket-outlets for household and similar purposes.
- IEC 60921 : Ballasts for Tubular Fluorescent lamps – Performance Requirements.
- IEC 60929: AC- Supplied electronic ballasts for tubular fluorescent lamps – Performance Requirements.
- IEC 60942 : Electroacoustic – Sound Calibrations.
- IEC 61000 : Electromagnetic Compatibility (EMC)
- IEC 61008 : Residual current operated circuit breakers without integral overcurrent protection for household and similar uses (RCCBs)
- IEC 61010 : Safety requirements for Electrical Equipment for measurement, control and laboratory use.
- IEC 61024 : Protection of structures against lighting.
- IEC 61058 : Switches for appliances.
- IEC 61084 : Cable trunking and ducting systems for Electrical Installations.
- IEC 61131 : Programmable Logic Controllers
- IEC 61238 : Compression and Mechanical connectors for power cables for rated voltage upto 30 KV
- IEC 61280 : Field Testing Method for measuring single fibre optic cable.
- IEC 61346 : Industrial systems, installations and equipment and industrial products – Structuring principles and reference designations.
- IEC 61355 : Classification and designation of documents for plants, systems and equipment.
- IEC 61537 : Cable Management – Cable tray system and cable ladder systems.

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- IEC 61544 : Panel mounted equipment – Electrical Measuring Instruments – Dimensions for Panel Mounting.
- IEC 62040 : Uninterruptable power systems.
- IEC 62061 : Safety of Machinery: Functional safety of electrical, electronic and programmable electronic control systems.
- IEC 62196 : Plugs and sockets for charging electric vehicles.
- IEC 62305 : Protection against lightning.
- IEC 62395 : Electrical Resistance trace heating systems for Industrial and Commercial applications.

2. IS Applicable Codes

IS:1554 (PART-I)	-	PVC insulated (heavy duty) electric cables - Working voltage upto and including 1100V
IS:7098 (PART-II)	-	Cross-linked polyethylene insulated PVC Sheathed cables for working voltages from 1.1 Kv upto and including 33kV.
IS:8130	-	Conductors for insulated electric cables and flexible cords.
IS:5831	-	PVC insulation and sheath of electric cables.
IS:3975	-	Mild steel wires, stripes and tapes for armouring of cables.
IS:2633	-	Methods of testing weight, thickness and uniformity of coating on hot dipped galvanized articles.
IS:209	-	Specification of zinc.
IS:3961 (PART-II)	-	Recommended current ratings for PVC Insulated and PVC sheathed Heavy duty cables.
IS:10418	-	Wooden drums for electric cables.
IEC:502	-	Extruded solid dielectric insulated power cables for rated voltages from 1kV upto 30kV.
IEC:540 & 540A	-	Test methods for insulation and sheaths of electric cables and Cords.
IS:10462 (PART-I)-		Fictitious calculation method for determination of dimensions of protective coverings of elastomeric and thermoplastic insulated cables.
IS:10810 (PART 58)-		Oxygen Index test.
IS 2071		Methods of H V Testing
IS 6209		Methods for Partial Discharge Measurement
IS 5621		Hollow Insulators for use in electrical equipment.
IS 2026		Transformer.

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3. Technical Specifications for Medium & High Voltage Cables and Accessories

3.1. General

The cables shall be suitable for laying in trays, trenches, ducts and conduits and or underground buried conditions which may be followed with uncontrolled backfilling and possibility of flooding by water and chemicals.

Outer sheath of all PVC and XLPE cables shall be black in color and the minimum value of oxygen index shall be 29 at $27 \pm 2^\circ \text{C}$. In addition, suitable chemicals shall be added into the PVC compound of the outer sheath to protect the cable against rodent and termite attack.

Sequential marking of the length of the cable in meters shall be provided on the outer sheath at every one meter. The embossing shall be legible and ineradicable.

The overall diameter of the cables shall be strictly as per the values mentioned in the technical specifications attached with this bid subject to a maximum tolerance of $\pm 2 \text{ mm}$.

PVC/Rubber end caps shall be supplied free of cost for each drum with a minimum height of eight per thousand meter length. In addition, ends of the cables shall be properly sealed with caps to avoid ingress of water during transportation and storage.

3.2. Specification for PVC Cables

All power / control cables for use on medium voltage systems shall be heavy duty type, 1100 Volts, insulated, inner-sheathed, armoured and overall PVC sheathed as detailed below.

The conductors shall be 'stranded' for both aluminium and copper cables. Conductors of nominal area less than 25 sq. mm shall be circular only. Conductors of nominal area 25 sq.mm and above may be circular or shaped. Cables with reduced neutral conductor shall have sizes as per Tables 1 of IS 1554 (Part-I).

The core insulation shall be with PVC compound applied over the conductor by extrusion and shall conform to the requirements of type 'A' compound as per IS:5831. The thickness of insulation and the tolerance on thickness of insulation shall as per table 2 of IS:1554 Part-1. Control cables having 6 cores and above shall be identified with prominent and indelible Arabic numerals on the outer surface of the insulation. Colour of the numbers shall contrast with the colour of insulation with a

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spacing of maximum 50 mm between two consecutive numbers. Colour coding for cables upto 5 crores shall be as per Indian Standard.

The inner sheath shall be applied over the laid-up cores by extrusion and shall be of PVC conforming to the requirements of TYPE ST1 PVC compound as per IS: 5831. The minimum thickness of inner sheath shall be as per Table 4 of IS:1554-Part-1.

Armouring for multi-core cables shall be by single round galvanised steel wires where the calculated diameter below armouring does not exceed 13 mm and by galvanised steel strips where this dimension is greater than 13 mm. Requirement and methods of tests for armour material and uniformity of galvanisation shall be as per IS-3975 and IS-2633. The dimensions of armour shall be as per table 5 of IS-1554 (Part-1). Armouring for single core cable shall be with H4 grade hard drawn aluminium round wire of 2.5 sq.mm diameter.

The outer sheath for the cables shall be applied by extrusion and shall be of PVC compound conforming to the requirements of type ST-1 compound as per IS:5831. The minimum thickness of outer sheath shall be as per column-3 for both armoured and unarmoured cables.

3.3. Specification for XLPE Cables

The conductor shall be stranded and compacted circular for all cables.

All cables rated 1.1/ 3.8/6.6kV and above shall be provided with both conductor screening and insulation screening. The conductors shall be provided with non-metallic extruded semi conducting shielding.

The core insulation shall be with cross-linked polyethylene insulating compound applied by extrusion. It shall be free from voids and shall withstand all mechanical and thermal stresses under steady state and transient operating conditions. It shall conform to the properties given in Table-1 of IS:7098 (Part-II).

The insulating shielding shall consist of non-metallic extruded semi-conducting compound in combination with a non-magnetic metallic screening of copper screen shall be capable of carrying the insulation shielding shall consist of non-metallic extruded semi-conducting compound in combination with a non-single line to ground fault current.

The conductor screen, XLPE insulation and insulation screen shall all be extruded in one operation by 'Triple Extrusion' process to ensure perfect bonding between the layers. The core identification shall be by coloured strips or by printed numerals.

The inner sheath shall be applied over the laid up cores by extrusion and shall conform to the requirements of type ST2 compound of IS:5831. The extruded inner sheath shall be of uniform

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thickness. For multicore cables, the armouring shall be by galvanised steel strips. If armouring is specified for single core cables in the data sheet, the same shall be with H grade hard drawn aluminum round wire of 2.5 sq.mm diameter.

The outer sheath of the cables shall be applied by extrusion after the armouring and shall be of PVC compound conforming to the requirements of Type of IS:5831. The thickness of outer sheath shall be as per amendment No.1 to Table 5 of IS:7098 part 2. (Column 3 & 5 for both armoured and unarmoured cables).

The dimensions of the insulation, inner sheath and armour materials shall be governed by values given in Tables 2, 3 and 4 (Method 'b') of IS:7098 PART-II.

3.4. Specification for Cable Accessories

The termination and straight through jointing kits for use on the systems shall be suitable for the type of cables offered as per this specification.

The accessories shall be supplied in kit form. Each component of the kit shall bear the manufacture's mark of origin.

The kit shall include all stress grading, insulating and sealing materials apart from conductor fittings and consumable items. An installation instruction sheet shall also be included in each kit.

The contents of the accessories kit including all consumables shall be suitable for storage without deterioration at a temperature of 45° with self-life extending to more than 5 years.

TERMINATING KITS: The terminating kits shall be suitable for termination of the cables to an indoor switchgear or to a weatherproof transformer/motor. For outdoor terminations, weather shields/sealing ends and any other accessories required shall also form part of the kit. The terminating kits shall be one of the makes/types mentioned in the preferred makes.

JOINTING KITS: The straight through jointing kits shall be suitable for installation on overhead trays, concrete lined trenches, and ducts and for underground burial with uncontrolled backfill and possibility of flooding by water and chemicals. These shall have protection against any mechanical damage and suitably designed to be protected against rodent and termite attack.

The cables shall be tested and examined at the manufacturer works both before and after manufacture. The manufacturer shall furnish all necessary information concerning the supply to consultant/owner's Engineer. The Engineer shall have free access to the manufacturer's works for the purpose for the purpose of inspecting the process of manufacture in all its stages and he will

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have the power to reject any material which appears to him to be at unsuitable description or of unsatisfactory quality.

PVC & XLPE CABLES:

After completion of manufacture of cables and prior to dispatch the cables shall be subject to special tests as detailed below. Consultant / owner reserves the right to witness all tests with sufficient advance notice from vendor. The test reports for all cables shall be got approved from the Engineer before dispatch of the cables.

All routine tests, acceptance tests and type tests shall be carried out on cables as listed in IS:1554 Part-1.

The inner and outer sheath of XLPE cables shall be subjected to all the tests applicable for PVC cables. The test requirements for insulation and sheath of PVC cables shall be as per latest revision of IS: 5831.

Following are the special tests to be performed on the cables and test results for similar type of cables shall accompany the offer.

Accelerated water absorption test for insulation as per NEMA-WC-5. (For PVC insulated cables) and as per NEMA WC-7 (for XLPE insulated cables).

Dielectric Retention Test: The dielectric strength of the cable insulation tested in accordance with NEMA WC -5 at $75 \pm 1^\circ$ shall not less than 50% of the original dielectric strength. (For PVC insulated cables).

Oxygen Index Test: The test shall be carried out as per ASTM D 2863 or applicable Indian standard specification.

Test for rodent and termite repulsion property: The vendors shall furnish the test details to analyze the property by chemical method.

CABLE ACCESSORIES:

Type tests should have been carried out to prove the general qualities and design of given type of termination / jointing system. The type tests shall include the following tests conforming to VDE 0278/IS specification. The type test certificates shall be submitted along with the offer.

1. Rated withstand AC voltage test
2. Partial discharge test

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3. Rated withstand surge voltage test
4. Continuous AC voltage test with cyclic current load (Number of heating cycles-3)
5. Partial discharge test
6. Continuous AC voltage test with cyclic current load (Number of heating cycles-60)
7. Thermal short circuit test
8. Continuous AC voltage test with cyclic current load
9. Rated withstand surge voltage test
10. D.C. voltage test
11. Test under the influence of moisture
12. Dynamic short circuit test

PACKING AND MARKING

Cables shall be dispatched in non-returnable wooden drums of suitable barrel diameter, securely battened, with the take-off end fully protected against mechanical damage. The wood used for construction of the drum shall be properly seasoned, sound and free from defect. Wood preservatives shall be applied to the entire drum. Ferrous parts used shall be treated with a suitable rust preventive finish or coating to avoid rusting during transit of storage.

On the flange of the drum, necessary information such as project title, manufacturer's name, type size, voltage, drum no., cable code, BIS certification mark, gross weight etc. shall be printed. An arrow instruction to show the direction of rotation of the drum.

Cables shall be supplied in drum lengths as follows:

Medium voltage power cables unto and including 6 sq.mm - 1000M

Medium voltage power cables from 10 sq.mm unto and including 300 sq.mm - 500 M

Control cables unto and including 27 crores 1000M

A tolerance of plus or minus 5% shall be permissible for each drum. However, overall tolerance on each size of cable shall be limited to $\pm 2\%$. Offers with short / non-standard lengths are liable for rejection.

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Main Cable Schedule					
Sl. No.	Item Particulars	From	To	Unit	Quantity
1.	1100 V Grade XLPE Al Armoured Cables				
(a)	2*3.5C*300 Sqmm,1100V XLPE Cable (Refrigeration System)	Main PCC panel	Refrigeration panel	Mts	50
(b)	4C*16 Sqmm,1100V XLPE Cable (Street Lights)	Main PCC panel	Street lights	Mts	300
(c)	3.5C*95 Sqmm,1100V XLPE Cable (Administrative Building Load)	Main PCC panel	Administrative building Distribution panel	Mts	70
(d)	4C*16 Sqmm,1100V XLPE Cable (RO Plant)	Main PCC panel	RO plant panel	Mts	30
(e)	4C*16 Sqmm,1100V XLPE Cable (Bore Well)	Main PCC panel	Bore well starter	Mts	30
(f)	3.5C*70 Sqmm,1100V XLPE Cable (Fire Fighting system)	Main PCC panel	Fire Fighting Panel	Mts	30
(i)	2*3.5C*400 Sqmm,1100V XLPE Cable	DG set AMF panel	Main PCC Panel	Mts	50
(j)	3R*3.5C*400 Sq.mm, 1100V XLPE Cable	Transformer Secondary	Main PCC Panel	Mts	165

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EARTH PIT DETAILS:

Copper / Galvanised / cast iron earth plate of 60x60x0.6 cm /1200x1200x1.2 cms in size buried in specifically prepared earth pit of 1.5 meters below ground level with 40 kg charcoal & salt with alternate layers of charcoal & salt with 90 mm dia GI pipe with funnel with funnel with wire mesh for watering & brick masonry block cover, heavy duty CI cover complete as per IS 3043 with necessary length of double GI earth wire of 6 SWG bolted with lug to plate with cadmium plated GI nut-bolts & covered in 12 mm dia GI pipe 2.5 meters long complete connected to nearest switch gears as directed & duly tested by earth tester.

Earth electrodes for earthing stations shall comprise GI pipes of 50 mm nominal diameter and 3.8 meter length in accordance with IS:3043. Bottom half of the pipe shall have holes drilled at intervals on its surface. Removable caps shall be provided at the top of pipe to facilitate pouring of water. The top portion of electrodes shall be enclosed in 400 x 400 x 400 mm M15 concrete & brick housing and provided with Cast Iron top cover and marker. Provision shall be kept at each earth station for testing earth resistance. Each earth station shall be completed with homogeneous layers of coke/charcoal and salt.

RESISTANCE TO EARTH

The resistance of earthing system shall not exceed 1.0 ohm.

EARTHING SCHEDULE		
S.no	Name of Earthpit	Purpose
1	TEP-1	Transformer yard LA-1
2	TEP-2	Transformer yard LA-2
3	TEP-3	Transformer yard LA-3
4	TEP-4	Metering Chamber
5	TEP-5	Isolator Body
6	TEP-6	CT,PT Unit Body
7	TEP-7	Structure Body
8	TEP-8	Tansformer body
9	TEP-9	Transformer Neutral
10	DGEP-1	DG Earthpit-1
11	DGEP-2	DG Earthpit-2
12	DGEP-3	DG Earthpit-3
13	DGEP-4	DG Earthpit-4
14	PREP-1	Pump room earthpit -1

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15	EREP-2	Pump room earthpit -2
16	LAEP-1	Lightning arrester earthpit-1
17	LAEP-2	Lightning arrester earthpit-2
18	REP-1	Refrigeration earthpit-1
19	REP-2	Refrigeration earthpit-2

INSTALLATION

The installation shall be carried out in accordance with the Indian Electricity Rules, the Codes of Practice of the Bureau of Indian Standards and other relevant regulations.

3.5. Transformer

Technical Specifications for 630KVA with OC

Standard Reference	:	IS:2026
Rating	:	630KVA
Installation	:	Outdoor
No. of Phases	:	3
No. of Windings	:	2
Primary Voltage (KV)	:	11
Secondary Voltage (KV)	:	0.433
Vector Group	:	Dyn11
Tapping on Primary	:	+5% To -5% @ 2.5% OCTC
Insulation	:	Class A
Cooling	:	ONAN
Ambient Temperature (Deg. C)		
Temperature Rise	:	50
in OIL (Deg. C)	:	50
in Winding by resistance (Deg. C)	:	55
Impedance	:	as per IS 2026
Paint Shade(as per IS:5)	:	Enamel 632
Terminal Arrangement HV	:	Bushing
KVA OCTC		
Terminal Arrangement LV	:	Cable box

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The transformer should be housed in a welded steel tank and bolted core construction with the following fittings:

1. Cooling Radiator
2. Pressure Relief valves w/o contacts
3. Rating & Diagram Plate
4. Lifting Lugs
5. Earthing Terminals
6. Off-Load Tap Changer
7. Thermometer pocket
8. 1 kg Silica Gel De-Hydrating Breather
9. Drain cum bottom filter Valve
10. Top Filter Valve with plug
11. Under Base Channel with Bidirectional Rollers & Roller Brackets
12. Jacking lugs
13. Inspection cover
14. Air release hole with plug
15. Oil level indicator
16. Oil conservator with drain plug

3.6. UPS

Output

Output Power Capacity	: 12000 Watts / 15 kVA
Max Configurable Power	: 12000 Watts / 15 kVA
Nominal Output Voltage	: 230V
Output Voltage Note	: Configurable for 220 : 230 or 240 nominal output voltage
Efficiency at Full Load	: 90%
Output Voltage Distortion	: Less than 3%
Output Frequency	
(sync to mains)	: 50/60 Hz +/- 3 Hz user adjustable +/- 0.1
Crest Factor	: 3 : 1
Waveform Type	: Sine wave
Output Connections	: (1) Hard Wire 3-wire (H N + G)
Bypass	: Built-in Bypass

Input

Nominal Input Voltage	: 230V
Input Frequency	: 40 - 70 Hz (auto sensing)

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Input Connections : Hard Wire 3 wire (1PH+N+G)

Input voltage range for

Main operations : 160 - 280V

Input voltage adjustable

Range for mains operation : 100 - 280V

Other Input Voltages : 220,240

Maximum Input Current : 60A

Input Breaker Capacity : 63.0 A

Communications & Management

Interface Port(s) : DB-9 RS-232, Smart Slot

Available SmartSlot™

Interface Quantity : 1

Control panel : LED status display with load and battery bar-graphs and On
Line: On Battery: Replace Battery: Overload and Bypass
Indicators

Audible Alarm : Alarm when on battery: distinctive low battery alarm: overload
continuous tone alarm

Emergency Power Off (EPO): Optional

Surge Protection and Filtering

Surge energy rating : 420 Joules

Filtering : Full time multi-pole noise filtering : 0.3% IEEE surge let-
through : zero clamping response time : meets UL 1449

Environmental

Operating Environment : 0 - 40 °C

Operating Relative Humidity: 0 - 95%

Operating Elevation : 0-3000 meters

Storage Temperature : -20 - 50 °C

Storage Relative Humidity : 0 - 95%

Storage Elevation : 0-15000 meters

Audible noise at 1 meter

from surface of unit : 55.00 dBA

Online Thermal Dissipation : 652.00 BTU/hr

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Approved Make of Material

(If any item missing, makes approved with PWD can be submitted for approval to BL before fixing)

Sl.No	Item Description	Acceptable Makes
1	11 kv Circuit Breaker	G.EC/ Crompton/ABB/Schneider electric
2	Transformer	Crompton / Siemens/PETE/Essenar
3	L.T. Air Circuit Breaker	L&T/ English Electric/ABB/Schneider electric
4	Switch Fuse unit, HRC Fuses	L&T/ English Electric
5	Shunt Capacitor	Asian / Universal/ Schneider electric
6	IDMT Relay	L&T/ English Electric/ Schneider electric/ABB
7	Ammeter, Voltmeter, KW meter, Frequency meter	L&T / RISHAB
8	KW meter	BHEL / HAVELLS
9	Onload Changeover Switch	L&T / Standard
10	CTs	AE/Kappa
11	Indicating light	L&T/ Vaishno
12	Selector Switch	Kay Cee
13	Armound Cable	CCI/ NICCO/ ICL/ /Polycab/ RPG / FINOLEX
14	Exhaust Fan	GEC/ Crompton/ Almonard
15	Fire Extinguisher	ZENITH / FIREX (ISI)
16	Rubber Mat	Jyoti (ISI)
17	Thimble	DOWEL/ JAISON
18	Electric Motor	CGL/ KEC/ BB /Siemens /NGEF
19	Switch-Fuse Unit / MCCBs	L&T / Siemens / Legrand
20	MCBs/ MCB – DBs	Legrand
21	DOL/ SD – starters / Aux. contactors/ Timers	L&T / Siemens/C&S/ Schneider/ Legrand
22	Change-over Relays	OEN/ PLA
23	Audio – Visual annunciator	Minilec
24	Voltmeter /Ammeter	A.E. /L &T
25	Indication lamps (LED type)	Teknik/ L&T / Siemens
26	Push - buttons	Teknik/ L&T / Siemens
27	Control Fuses	L&T / Siemens
28	Terminals	Elmex
29	PF Capacitors	Ducati/ CGL/ L&T

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30	Panel wires/ Lighting Wires	Finolex/ Polycab
31	LV Cables	RPG/ Finolex/ Polycab
32	Cable Lugs	Dowells
33	Cable Glands	Comet
34	Metal-clad industrial plug socket MCB- DBs	MDS / Legrand
35	Lighting Fixtures	Phillips/ Bajaj or Approved Equivalent
36	Commercial Switches, Sockets	Anchor/Legrand

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ANNEXURE IV

Tentative Period for Deliverables

Sr. No.	Activity Descriptions	Compliance Duration
1	Submission of GA Drawings	Within 15 Days from the date of receipt of P.O. or LOI whichever is earlier.
2	Approval by BL / Consultant.	Within 5 Days
3	Supply and Erection at site	60 Days from the date of giving clearance.
4	Commissioning and Handing Over	10 Days

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ANNEXURE V

CHECK LIST – COMMERCIAL BID AND DEVIATION SHEET

(To be filled by the bidder)

Tender Reference No. BL/LI/CC/HYD/20 Dated 04/07/2015

Refer clause no. 14, if the bidder wants to mention deviations, then should mentioned in the below table, deviations marked anywhere else will not be considered.

Clause No.	Title	Brief Tender Descriptions	Deviations

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ANNEXURE V

Proforma of Bank Guarantee for Security Deposit

Balmer Lawrie & Co. Ltd.

Logistics Infrastructure,

21, N.S. Road,

Kolkata - 700001, India

Dear Sir,

That Messrs. /Mr. _____ (set out full name and a Bidder and constitution of the Contractor) (hereinafter referred to as "the Contractor") filed their / his / its quotation against your Tender being Tender No. ----- (hereinafter referred as "the said Tender") for the supply and commissioning of machines and in pursuance thereto an Order being No. _____ dated (hereinafter referred to as "the Order") was issued by you to the Contractor.

The conditions of the said Tender, inter alia, require that the Contractor shall pay a sum of Rs. (Rupees only) as full security deposit (hereinafter referred to as "the security deposit") in the form therein mentioned. The form of payment of security deposit includes a guarantee to be executed by a Scheduled India Bank.

The said Messrs. / Mr. _____ (set out full name of the Contractor) have / has approached us and at their / his / its request and in consideration of the premises. We _____ (set out full name of the Bank) having our office, inter alia at _____ (state the address of the Bank) have agreed to give such guarantee in the manner following:

1. We, _____ (set out full name of the Bank), hereby undertake and agree with you if default is made by Messrs. / Mr. _____ (set out full name of the Contractor), in performing any of the terms and conditions of the Tender and / or Order or in payment of the security deposit or any other or in payment of money payable to you, We, _____ (set out full name of the Bank) shall merely on demand from you without demur or protest shall pay you the said amount Rs. 000.00 (only) or such portion thereof not exceeding the said sum as you may demand from time to time.
2. We, _____ (set out full name of the Bank), further agree with you that you shall have the fullest liberty to without our consent and without affecting in any manner our obligations hereunder to adopt any mode for realization of your dues from the Contractor and/or to vary any of the Terms and Conditions of your Contract with the said Messrs. / Mr. _____ (set out full name of the contractor) or to extend time of performance by Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by you against Contractor and to forbear or enforce any of the terms and conditions relating to the Contract and We, _____ (set out full name of the Bank) shall not be relieved from our liability by reason of any such variation, or any indulgence to be given by you to the Contractor or by any such matter

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or thing whatsoever which under the law relating to sureties would but for this provision have effect of so releasing us.

3. Your right to recover the said sum of Rs. 000.00 (Rupees only) from us in the manner aforesaid will not be affected or suspended by reason of the fact that any dispute or disputes is / are pending before any Officer, tribunal, court or any other authority or authorities.
4. The guarantee herein contained shall not be determined or affect by liquidation or winding up, dissolution or change of constitution or insolvency of the said Messrs. / Mr. _____ (set out the full name of the Contractors), but shall in al respect, and for all purposes be binding and operative until payment of all the money due to you in respect of such liabilities is paid.
5. Our liability under this guarantee is restricted to Rs. 00.00 (Rupees only)
6. Our guarantee shall remain in force and effect until _____ (set out the date of Expiry) and unless a claim or demand in writing is made against us under this guarantee before the expiry of six months from the aforesaid date i.e. _____ (set out last date of Claim period), the said Guarantee all your rights under this guarantee shall be forfeited and We, _____ (set out full name of the Bank) shall be relieved and discharged from all liabilities thereunder.
7. We, _____ (set out full name of the Bank) undertake not to revoke this Guarantee during its currency except with your previous consent in writing.
8. We, _____ (set out full name of the Bank) have power to issue this Guarantee in your favour under our Memorandum and Articles of Association and the undersigned has full power to execute / sign this Guarantee under the Power of the Attorney dated the _____ day of _____ Two Thousand _____ granted by the Bank.

Yours faithfully,

Dated:

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ANNEXURE VII

HSE COMPLIANCE

6.6.2 Annexure – A2

HSE Requirements BY CONTRACTORS (To be a part of contract documents)

Housekeeping

Contractors shall ensure that their work area is kept clean tidy and free from debris. The work areas must be cleaned on a daily basis. Any disposal of waste shall be done by the Contractor.

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All equipment, materials and vehicles shall be stored in an orderly manner. Access to emergency equipment, exits, telephones, safety showers, eye washes, fire extinguishers, pull boxes, fire hoses, etc. shall not be blocked or disturbed.

Confined Space

Before commencing Work in a confined space the Contractor must obtain from BL a Permit to Work, the Permit to Work will define the requirements to be followed.

As minimum Contractors must ensure the following:

- i. Confined spaces are kept identified and marked by a sign near the entrance(s).
- ii. Adequate ventilation is provided
- iii. Adequate emergency provisions are in place
- iv. Appropriate air monitoring is performed to ensure oxygen is above 20%.
- v. Persons are provided with Confined Space training.
- vi. All necessary equipment and support personnel required to enter a Confined Space is provided.

Tools, Equipment and Machinery

The Contractor must ensure that all tools & equipment provided for use during the Work is:

- suitable for its intended use;
- safe for use, maintained in a safe condition and where necessary inspected to ensure this remains the case (any inspection must be carried out by a competent person and records shall be available);
- Used only by people who have received adequate information, instruction and training to use the tool or equipment.
- Provided with Earth leakage circuit breaker (ELCBs) at all times when using electric power cords. Use of electrical tape for temporary repairs is prohibited.

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Working at Height

Any Work undertaken where there is a risk of fall and injury is considered to be working at height.

For any Contractor Personnel working at height, Contractors shall provide fall prevention whenever possible and fall protection only when fall prevention is not practicable. Before commencing Work in a height the Contractor must obtain from BL a Permit to Work, the Permit to Work will define the requirements to be followed. Supervisor must be present at all point of time, to ensure no deviation occur during the course of work.

Fall Prevention System

Fall prevention systems (e.g. fixed guardrails, scaffolds, elevated work platforms) must provide protection for areas with open sides, including exposed floor openings.

Fall Protection Systems

Where fall protection systems are used then the Contractor must ensure the following is applied:

- i. Only approved full body harness and two shock-absorbing lanyards are used,
- ii. Prior establishment of a rescue plan for the immediate rescue of an employee in the event they experience a fall while using the system,
- iii. Anchorage points must be at waist level or higher; and capable of supporting at least the attached weight,
- iv. Lifeline systems must be approved by BL before use.
- v. Use of ISI marked industrial helmet at all point of time.

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Scaffolding

All scaffolds shall subject to a documented inspection by a competent person and clearly marked prior to use. The footings or anchorage for scaffolds shall be sound, rigid and capable of carrying the maximum intended load without settling or displacement. All scaffolding materials should be of MS tubular type.

Guardrails and toe-boards shall be installed on all open sides and ends of scaffold platforms. Scaffolds shall be provided with an access ladder or equivalent safe access. Contractor Personnel shall not climb or work from scaffold handrails, mid-rails or brace members.

Stairways and Ladders

Ladders should only be used for light duty, short-term work or access in line with the below and the Site Requirements.

- a. Fabricated ladders are prohibited.
- b. Ladders will be secured to keep them from shifting, slipping, being knocked or blown over.
- c. Ladders will never be tied to facility services piping, conduits, or ventilation ducting.
- d. Ladders will be lowered and securely stored at the end of each workday.
- e. Ladders shall be maintained free of oil, grease and other slipping hazards
- f. Ladders will be visually inspected by a competent person and approved for use before being put into service. Each user shall inspect ladders visually before using.
- g. Ladders with structural defects shall be tagged "Do Not Use," immediately taken out of service, and removed from the Site by the end of the day.

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Lifting Operations

Cranes and Hoisting Equipment

Contractors shall operate and maintain cranes and hoisting equipment in accordance with manufacturers' specifications and legal requirements.

Only Contractor Personnel trained in the use of cranes and hoists are permitted to use them.

Lifting Equipment and Accessories

All lifting equipment / accessories e.g., slings, chains, webbing, chain blocks, winches, jacks etc shall be indicated with their safe working load have an identification number visible on the unit and be inspected and tested in accordance with legal requirements.

Damaged equipment / accessories and equipment shall be tagged "out of use" and immediately removed from Site.

Lockout Tag out ("LOTO")

Prior to performing work on machines or equipment, the Contractor shall ensure that it is familiar with LOTO and Permit to Work procedures and that all of its affected Contractor Personnel receive the necessary training.

Barricades

Floor openings, stairwells, platforms and walkways, and trenching where a person can fall any distance shall be adequately barricaded and where necessary, well lit. Where there is a risk of injury from a fall then rigid barriers must be used.

Barricades must also be used to prevent personnel entering an area where risk of injury is high e.g., during overhead work activity or electrical testing etc. Such barricading must provide clear visual warning..

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Compressed Gas Cylinders

Gas cylinder shall be securely stored and transported, and identified and used in line with the local requirements. Hose lines shall be inspected and tested for leaks in line with local requirements. Flash Back arrestor to be used to prevent any explosion due to back fire.

Electrical Safety

Prior to undertaking any work on live electrical equipment the Contractor must obtain a Permit to Work from BL. Where ever possible live work should be avoided. Any control measures highlighted shall be implemented prior to work commencing.

The below measures will be taken:

- a) Work practices must protect against direct or indirect body contact by means of tools or materials and be suitable for work conditions and the exposed voltage level.
- b) Energized panels will be closed after normal working hours and whenever they are unattended. Temporary wiring will be de-energized when not in use.
- c) Only qualified electrical Contractor Personnel may enter substations and/or transformer and only after being specifically authorized by BL.

Hot Works

A Permit to Work must be obtained from BL prior to any hot works (welding, grinding, open flame work). Suitable fire extinguishing equipment shall be immediately available. Objects to be welded, cut or heated shall be moved to a designated safe location, or, if they cannot be readily moved, all movable fire hazards in the vicinity shall be taken to a safe place. Personnel working around or below the hot works shall be protected from falling or flying objects.

Prior to the use of temporary propane or resistance heating devices approval must be obtained from BL.

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Environmental Requirements

Waste Management

The Contractor is responsible to remove any waste generated by the work being done on the Site. The Contractor must dispose of the waste in line with the relevant local legislative requirements. The waste disposal route shall be documented and made available for BL to review at any time and may be subject to BL's prior approval.

Wastes (includes rinse from washing of equipment, PPE, tools, etc) are not to be poured into sinks, drains, toilets, or storm sewers, or onto the ground. Solid or liquid wastes that are hazardous or regulated in any way are not to be disposed of in general site waste receptacles.

Spills

The Contractor is responsible for the provision of adequate spill kits/protection and the clean up and disposal costs arising from such spills.

Emissions

The Contractor shall identify and quantify any emission sources associated with the Works. The control measures associated with these emission shall be subject to the approval of BL. Emissions include but are not limited to noise, dust, fumes, vapours.

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ANNEXURE VIII

Bank Guarantee Format for Advance

Stamp Paper Value / Scroll based on Guarantee Value

Buyers Name and Address

.....

.....

.....

Dear Sir,

Guarantee No :

Amount of Guarantee : Rs.

Guarantee fromto

Last Date for Lodgement of Claim :

This guarantee is made on the xxx day *of* xxx, by Bank Name having its office/place of business at _____hereinafter referred to as the 'Guarantor' which expression unless repugnant to the context shall include its successors) in favour of -----(Buyer) a company formed under the Indian Companies Act 1913 and having its registered office at -----
----- (address) (hereinafter referred to as 'yyy' which expression, unless repugnant to the context, shall include its successors and assigns etc.)

WHEREAS -----('yyy') has entered into a contract reference -----
----- dated -----(dd/mm/yy) (which expression unless repugnant to the context shall include any amendments thereto) with GODREJ & BOYCE MFG. CO. LTD. (hereinafter referred to as the 'contractor' which expression unless repugnant to the context shall include its successors and assigns etc.) whereunder the contractor shall be paid an advance of Rs.-----, prior to commencement of performance under the said contract.

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AND WHEREAS the contractor is required to furnish a bank guarantee of Rs. -----
-----to -----(yyy) to secure due performance of the contract.
NOW, at the request of the contractor, we BANK NAME the Guarantor; hereby
execute this Guarantee as follows:

1. We hereby unconditionally and irrevocably, without recourse and without demur, without any reference to the contractor and despite any objection by the contractor, guarantee the immediate payment to -----(yyy) any sum or sums unto Rs. -----(Rupees Thirty lac only), on ---
----- (yyy) 's demand in writing, stating that the sum or sums claimed is/are due to -----(yyy) by reason of the failure of the contractor to fulfil any of its obligations under the contract.
2. The intimation from -----(yyy) referred to in this paragraph should be made by courier to the following address indicated below:

.....(Bank address)

The aforesaid intimation from -----(yyy) to us stating that there has been a default by the contractor shall be final and conclusive in relation to the issue of default by -----(yyy) for the purpose of invoking this guarantee.

3. I/We The Guarantors will be bound to pay without demur to -----
----- (yyy) the amount due under this guarantee and the amounts stated by ----- (yyy) to be due shall be final and binding on us, the Guarantor notwithstanding any dispute or controversy between the contractors and ----- (yyy) arising out of this contract, or any other contract whatsoever. The Guarantor further agrees that the Guarantor shall be treated a primary obligor and ----- (yyy) will have recourse to enforce this guarantee without reference to the contractor and the liability of the Guarantor shall not be impaired or discharged by any extension of time or variation made to the agreement between the contractor and ----- (yyy) (with or without the knowledge or consent of the Guarantor).

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4. Neglect or forbearance on the part of -----(yyy) in enforcement of payment of any monies the payment whereof is intended to be hereby secured or giving of time by -----(yyy) for repayment thereof or any variation made to the agreement between the contractor and -----(yyy) (with or without the knowledge or consent of the Guarantor) or any change in constitution of this Bank or the contractor shall not in any way relieve us, the bank of our liability under this guarantee, both as the primary obligor and the surety
5. The Guarantor has power to issue this guarantee and the undersigned has full powers to sign this guarantee on our behalf.
6. We undertake not to revoke this guarantee & the undersigned has full powers to sign this guarantee on our behalf.
7. We undertake to renew this guarantee or to extend the period of guarantee on being called upon to do so by -----on account of any delay in shipment beyond the delivery schedule specified in the said contract and if the guarantee is not renewed or the period extended, then we shall pay to the Purchaser the amount claimed within the limit of the guarantee.
8. NOTWITHSTANDING ANYTHING CONTAINED HERE IN BEFORE, the liability of the Guarantor under this guarantee is restricted to Rs. ----- --(Rupees Thirty lac only). The guarantee shall remain in force until ----- --. In case no claim is lodged by-----_yyy upon the Guarantor within-----, that is, on or before -----(dd/mm/yy) all the rights of -----(yyy) under the said guarantee shall be forfeited and the Guarantor shall be relieved and discharged from all liabilities there under.
9. All claims under this guarantee will be made payable at BANK NAME N.A., BANK ADDRESS. This guarantee will be returned to BANK NAME N.A., CITY once the purpose of issuance has been fulfilled or upon its expiry whichever is earlier
10. This guarantee is subject to the laws of India and any dispute arising out of or related to this guarantee shall be subject to the exclusive jurisdiction of the courts at Mumbai, India.

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Notwithstanding anything contained herein:

1. Our liability under this guarantee shall not exceed **Rs.** -----
---(Rupees Thirty lac only)
2. The Gurantee shall be valid from to -----
3. We are liable to pay the guarantee amount or any part there to under this Bank guarantee only if you serve upon us a written claim or demand on account of not fulfilling the conditions of the agreement or before the expiry of this Guarantee i.e end date of guarantee at our office atwhere after it ceases to be in effect in all respectes whether or not the original bank gurantee document is returned to us or not.

Date : **dd/mm/yy**

For BANK NAME

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ANNEXURE IX

Proforma of the Bank Guarantee (Performance)

Letter of Guarantee No: _____

Dated the day of: _____

THE GUARANTEE is executed at Kolkata on the _____ day of _____ by _____ (set out full name and address of the Bank) (hereinafter referred to as "the Bank" which expression shall unless expressly executed or repugnant to the context or meaning thereof mean and include its successors and assigns)

WHEREAS Balmer Lawrie & Co. Ltd., 21 N.S. ROAD, Kolkata-700001, India, an existing Company within the meaning of the Companies Act, 1956 and having its Registered Office at 21 N. S. Road, Kolkata-700 001 (hereinafter referred to as "the Company") issued a Tender being No. dated (hereinafter referred to as "the said Tender") for the supply and commissioning of machines and pursuant thereto M/s. _____ (set out full name and address of the Contractor) (hereinafter referred to as "the Contractor" which term or expression wherever the context so requires shall mean and include the partner or partners of the Contractor for the time being / his /its heirs executors administrators successors and assigns) (delete which are not applicable) has accepted the said Tender and filed its quotation.

AND WHEREAS the quotation of the Contractor had been accepted by the Company and in pursuance thereof an Order being No: _____ dated _____ (hereinafter referred to as "the said Order") has been placed by the Company on the Contractor for (set out purpose of the job).

AND WHEREAS under the terms of the said Order the Contractor is required to furnish the Company at their / his / its own costs and expenses a Bank Guarantee for Rs _____ (Rupees _____ only) as performance guarantee for the fulfilment of the terms and conditions of the said Tender and to do execute and perform the obligations of the Contractor under the Agreement dated the _____ day of _____ (hereinafter referred to as "the Agreement") entered into by and between the Company of the one part and the Contractor of the other part, the terms of the said Tender and the terms contained in the said order which expression shall include all amendments and / or modifications and / or variation thereto.

AND WHEREAS the Contractor had agreed to provide to the Company a Bank Guarantee as security for the due performance of their / his / its obligations truly and faithfully as hereinbefore mentioned.

NOW THIS GUARANTEE WITNESSETH as follows:

1. In consideration of the aforesaid premises at the request of the Contractor we _____ (set out the full name of the Bank) the Bankers of the Contractor hereby irrevocably and unconditionally guarantee that the Contractor shall perform fully and faithfully their / his / its contractual obligations under the Agreement dated the _____ day of _____ entered into by and between the Company of

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the one part and the Contractor of the other part the terms and conditions of the said Tender and the said Order.

2. We _____ (set out full name of the Bank) do hereby undertake to pay to the Company without any deduction whatsoever a sum not exceeding Rs _____ (Rupees _____ Only) without any protest, demur or proof or condition on receipt of a written demand from the Company stating that the amount claimed is due by way of loss and damage caused to or would be caused to or suffered by the Company due by way of loss and damage caused to or would be caused to or suffered by the Company due to bad workmanship or by reason of breach of any of the terms and conditions of the Agreement the said Tender and the said Order hereinbefore mentioned.
3. This Guarantee is issued as security against due performance of the obligations of the Contractor or under the Agreement aforesaid and the said tender and the said Order hereinbefore mentioned and subject to the conditions that our liabilities under this Guarantee is limited to a maximum sum of Rs _____ (Rupees _____ Only) or the amount of loss or damage suffered or to be suffered by the Company in its opinion at any period of time, whichever is lower.
4. We _____ (set out full name of the Bank) further agree that the undertaking herein contained shall remain in full force for a period of _____ months from the date of the satisfactory execution of the Contractor.
5. This Guarantee shall not be affected by any amendment or change in the Agreement or change in the constitution of the Bank and /or the Company and / or the Contractor.
6. We _____ (set out full name of the Bank) undertake not to revoke this Agreement during its currency except with the previous consent of the Company in writing.
7. All claim under this Guarantee must be presented to us within the time stipulated after which date the Company's claim / right under this Guarantee shall be forfeited and we _____, (set out full name of the Bank) shall be released and discharged from all liabilities hereunder.
8. This instrument shall be returned upon its expiry or settlement of claim(s), if any, thereunder.
9. Notwithstanding anything contained hereinabove our total liabilities under this Guarantee shall not exceed a sum of Rs _____ (Rupees _____ Only) and unless a demand or claim in writing under this Guarantee reaches us on or before the day of _____ (last date of claim) and if no claim is received by us by that date all rights and claims of the Company under this Guarantee shall be forfeited and we, _____ (set out full name of the Bank) shall be released and discharged of all our liabilities under this Guarantee thereafter.

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10. We have power to issue this guarantee in your favour under our Memorandum and Article of Association and the undersigned has full power to execute this Guarantee under the Power of Attorney dated the _____ day of _____ granted to him by the Bank.

Place:

Date:

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ANNEXURE X

SCHEDULE OF QUANTITIES

Item No.	Brief Item Descriptions	Detail Item Description	Unit	Qty
SECTION A - TSSPDCL Works (Up to Point of Supply)				
1	H.T. Cables: Supply, Testing (IR Test and Hi -pot test), tagging, laying and commissioning of following 11 KV grade 3C X 50 Sq.mm. XLPE Insulated armoured aluminium cable	H.T. Cables: Supply, Testing (IR Test and Hi -pot test), tagging, laying and commissioning of following 11 KV grade 3C X 50 Sq.mm. XLPE Insulated armoured aluminium cable inclusive of making trench of at-least 1.50 Mtr below the Finished Ground Level, with sand cushioning of 75mm, covering with RCC half round pipe of 200mm dia. and refilling of cable trench, levelling of cable trench etc., (Note: Quantity is tentative as Route is tentatively decided) cable shall be laid as per local electrical by laws, Tender Data Sheet/ Specifications. Excavation shall be measured separately.		
1.1	3 Core, 50 Sq mm XLPE Insulated Armoured Aluminium Cable.	3 Core, 50 Sq mm XLPE Insulated Armoured Aluminium Cable	Rmt	50
2	Providing, laying and fixing of 300mm dia RCC Pipe of NP2 Class (Light Duty) in ground complete with RCC Collers, jointing etc. complete.	Providing, laying and fixing of 300mm dia RCC Pipe of NP2 Class (Light Duty) in ground complete with RCC Collers, jointing with cement mortar 1:2 (1 Cement : 2 Fine Sand) including trenching (750 mm deep) and refilling etc., as required for road crossing of cables.	Rmt	15
3	HT Cable Termination: Supplying and making both indoor and outdoor cable end termination with heat shrinkable sleeves etc. complete.	HT Cable Termination: Supplying and making both indoor and outdoor cable end termination with heat shrinkable sleeves complete with all accessories including lugs suitable for following size of 3 Core, XLPE Aluminium conductor cables of 11 KV grade as required.		
3.1	50 Sq. mm	50 Sq. mm	No	2
4	HT Equipment			
4.1	Supply, erection, testing and commissioning of 4 Pole structure consisting of 4 Nos. of ISMB 200 or as per by laws of 9 Mtr height.	Supply, erection, testing and commissioning of 4 Pole structure consisting of 4 Nos. of ISMB 200 or as per by laws of 9 Mtr height. The rate shall be inclusive of digging a pit of 1.20 Mtr depth, refilling the excavated pit with boulders	Set	1

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		of sizes less than 100mm, burnt bricks and earth by after aligning, ramming and providing 2 sets of cross arms for disk insulators, 11 KV 200A isolator with locking arrangement, home gap fuse with necessary current rating, necessary angle iron supports, brackets for mounting insulators, lighting arrestors, CT&PT metering unit and with trivector energy meter as approved by local authority etc. and with complete all other required hardware including painting of angle iron frame,supports etc., works as required by Electrical Board C.E.I. and approval of electrical layout from concerned department as per I.E Rule.		
4.2	Supply and fixing, H.T. Meter Box suitable to accommodate the meter and as approved by the local electrical department.	Supply and fixing, H.T. Meter Box suitable to accommodate the meter and as approved by the local electrical department.	No	1
4.3	Danger Boards (In Hindi/ English and Telugu).	Danger Boards (In Hindi/ English and Telugu)	No	20
5	Earthing (Refer Earthing Schedule in tender docs for Details).	Earthing (Refer Earthing Schedule in tender docs for Details)		
5.1	Earthing: As per IS 3043 providing independent earthing for grounding of transformer and other equipment with 40 mm dia, B class 2.5 Mtr long GI Pipe with GI funnel etc. complete.	Earthing: As per IS 3043 providing independent earthing for grounding of transformer and other equipment with 40 mm dia, B class 2.5 Mtr long GI Pipe with GI funnel covered with mesh in C.C. chamber of 400mm x 400mm x 400mm provided with 50mm RCC Pre-cast slab cover provided with staggered holes of 12mm, 16 nos., to earth electrode filling with salt, charcoal in a ratio to get the earth resistance less than 1 ohm. The connecting GI Strip from Electrode shall be of 25mmx6mmx200mm long provided with GI Washers, Bolts, Nuts etc. as required for installation.	No	10
5.2	Supply, Erection, Testing and commissioning of copper plate earth station etc complete.	Supply, Erection, Testing and commissioning of copper plate earth station with 600mm x 600mm x 3.15mm thick copper plate connected with 2 runs of 25mmx 6mm copper strips of (5+5), 10 Mtr long, buried at least 3 Mt depth with construction of Brick Chamaber 750mm x 750mm x 750mm provided with mesh funnel	No.	9

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		GI Covers, spreading of homogeneous mixture of salt, charcoal in required proportion.		
5.3	Earthing Materials: Supply and fixing of following earthing materials.	Earthing Materials: Supply and fixing of following earthing materials on cables trays/ trenches including all necessary welding/ brazing and forming effecting necessary earth connections as per required or instructed by the owner/ its representative.		
5.3.1	50 X 6 mm Cu Strip	50 X 6 mm Cu Strip	Rmt	100
5.3.2	25 x 6 mm GI Strip	25 x 6 mm GI Strip	Rmt	250
5.3.3	25 x 3 mm Cu Strip	25 x 3 mm Cu Strip	Rmt	125
SECTION B - HT/LT Substation Equipment (HT/LT Works after TSSPDCL Point of supply)				
6	Supply, Installation with all fittings and accessories testing and commissioning, drainout and oil filtration (till adequate value of insulation resistance of windings and breakdown value of oil are achieved is included in the scope) of 630 KVA transformer	Supply, Installation with all fittings and accessories testing and commissioning, drainout and oil filtration (till adequate value of insulation resistance of windings and breakdown value of oil are achieved is included in the scope) of 630 KVA 11/0.433 KV transformer vector group of Dyn 11 & with off circuit tapchanger on HV side as mentioned in tender technical data sheet. The transformer shall be as per latest IS 2026 & suitable for outdoor installation with HT and LT cable box for indoor cable terminations and required accessories etc., as per tender technical specifications and data sheet.	Set	1
7	PCC Panels: Design, Testing, Erection and Commissioning of PCC Panel as per the requirements.	PCC Panels: Design, Testing, Erection and Commissioning of PCC Panel as per the following requirements and as per I.E. rule 46, INCOMER (2 Nos.) : With 1600 amps, 50 KA, 3Ph, 4Pole, EDO, ACB electrically operated drawn out type. OUTGOING FEEDERS : 630A, 3p, MCCB - 3 Nos. OUTGOING FEEDERS : 200A, 3p, MCCB - 2 Nos. OUTGOING FEEDERS : 100A, 3p, MCCB - 1 No. OUTGOING FEEDERS : 16A, 3p, MCCB - 5 Nos. 350 KVAR Capacitor Bank with APFC relay in 12 stages of 350 KVAR - 1 No. Construction of Panel : With 14/16 gauge CRCA() sheet fold at and welded construction mounted on 50/75		

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		channel. Wiring : 1100/ 660 V grade PVC insulated copper conductor cable. BUS BARS: Phase 150 x 100 mm aluminium flat. Neutral 150 x 6 mm aluminium flat. Earth 75 x 6 mm aluminium flat. With epoxy cover with respectable color code for RYBN or 80 x 10mm TPN Aluminium flat. PAINTING: Oven dried epoxy based powder coating with siemens grey paint shade		
		PCC METERS: Volt Meter - VM - 0 to 500 V - 1 No. V.M. Selector Switch - VSS - 1 No. Ammeter - AM - 0 to 1000 / 5 A - 1 No. AM Selector Switch - ASS - 1 No. Fuses - 2 A, NS Type HRC Fuses - 6 Nos. KWH Meter - Digital KWH Meter - 1 No. Digital Multifunction Meter - MFM - 1 No. O/C, E/F, U/V & O/V Protections CT -1600/1/1A, 15 VA with measuring class 0.2S and protection class 5P10-3 Nos. Indicating Lamp - RYB of 22.5 0-3Nos PCC shall be complete with all inter connection labels control wiring entry for cables from transformer and entry for cables from outgoing feeders as per side conditions.	Set	1
8	Distribution Boards			
	Supply, installation, testing and commissioning of TPN MCB distribution boards.	Supply, installation, testing and commissioning of TPN MCB distribution boards, dust and vermin protected with 415 V, 4 P, A C supply operation including incomer as MCCB or MCB as for specifications with required capacity of neutral bar, earth terminals etc, as required and installed in flush with wall, fixing materails, MCB confirm as IS 8828 and IS 12640		
8.1	16 way TPN MCB DB with 63 A MCCB as incomer and 12 nos SPMCB as outgoing (for MDBs)	16 way TPN MCB DB with 63 A MCCB as incomer and 12 nos 10 A/ 16 A SPMCB as outgoing (for MDBs)	Set	2

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8.2	22 way TPN MCB DB with 40 A - 63 A as incomer and 18 nos 16 A- 20 A SPMCB as outgoing (for LDBs)	22 way TPN MCB DB with 40 A / 63 A as incomer and 18 nos 16 A/ 20 A SPMCB as outgoing (for LDBs)	Set	2
8.3	16 way TPN MCB DB with 32 A as incomer and 12 nos 10 A/ 16 A SPMCB as outgoing (for UPSDBs)	16 way TPN MCB DB with 32 A as incomer and 12 nos 10 A/ 16 A SPMCB as outgoing (for UPSDBs)	Set	1
8.4	4 way TPN MCB DB with 40 A as incomer and 12 nos 10 A/ 16 A SPMCB as outgoing (Spare)	4 way TPN MCB DB with 40 A as incomer and 12 nos 10 A/ 16 A SPMCB as outgoing (Spare)	Set	1
8.5	6 way TPN MCB DB with 40 A as incomer and 12 nos 10 A/ 16 A SPMCB as outgoing (Spare)	6 way TPN MCB DB with 40 A as incomer and 12 nos 10 A/ 16 A SPMCB as outgoing (Spare)	Set	1
8.6	8 way TPN MCB DB with 40 A as incomer and 12 nos 10 A/ 16 A SPMCB as outgoing (Spare)	8 way TPN MCB DB with 40 A as incomer and 12 nos 10 A/ 16 A SPMCB as outgoing (Spare)	Set	1
9	INTERNAL ELECTRIFICATION			
	<p>General</p> <p>The point wiring shall include the following :</p> <ol style="list-style-type: none"> 1. Laying of F.R. PVC Conduits from DB to Light Point via switch. 2. Wiring from D.B. to Light /Fan/ Socket outlet via switch with FRLS wires 3. Cutting chases in the wall and fixing of conduit with saddles and spacers and making them good 4. Paintin of all metallic boxes with approved shade of paint after Red Oxide primer where MS Boxes are specified 5. Supply and Fixing of Anodized GI Switch Boxes of suitable size with front plate and switch / sockets. 6. The secondary point in case of point wiring shall include necessary wiring looped from primary light point as indicated in Electrical Drawings. 7. The rate for point wiring for Lights/ Fans/ 5 A Sockets shall include the circuit. 			
9.1	Light Points: Supply of primary light point with 2 runs of 650 grade 1.5 sq.mm,ISI marked PVC insulated FRLS multi strand copper conductor wires conforming to IS :694.	Light Points: Supply of primary light point with 2 runs of 650 grade 1.5 sq.mm,ISI marked PVC insulated FRLS multi strand copper conductor wires conforming to IS :694 (With latest amendments) in 25mm dia, heavy guage fire retardant PVC conduits concealed in wall/ column/ ceiling / floor including supply and fixing of 1 No. 10 Amps single pole modular type switch in anodized box and earthing with 1.5 sqmm multi strand PVC insulated wire run continuously along with conduit including supply of all fixing materials accessories like 3		

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		plate ceiling rose / batten holder and interconnections completed as required.		
9.1.1	Supply and wiring as above with control switch looped from primary light point with 10A SP switch in Modular switch box.	Supply and wiring as above with control switch looped from primary light point with 10A SP switch in Modular switch box.	No	35
9.1.2	Supply of exhaust fan and wiring as above for exhaust fan with 10A SP switch in Modular switch box.	Supply of exhaust fan and wiring as above for exhaust fan with 10A SP switch in Modular switch box.	No	6
9.1.3	Supply and fixing of 16 A, 5 Pin combined switch socket outlet in lighting control switch board including interconnections etc. complete.	Supply and fixing of 16 A, 5 Pin combined switch socket outlet in lighting control switch board including interconnections etc. complete.	No	35
9.1.4	Supply and wiring of 10Amps switches, 5 Pin socket independent combined modular type switch socket outlet in suitable box and front plate.	Supply and wiring of 10Amps switches, 5 Pin socket independent combined modular type switch socket outlet in suitable box and front plate.	No	15
9.1.5	Supply and fixing of 32 A metal clad socket with 32 A TPNMCB and IP65 MS Box including all fixing accessories with MS front plate.	Supply and fixing of 32 A metal clad socket with 32 A TPNMCB and IP65 MS Box including all fixing accessories with MS front plate.	No	3
9.2	Fan Points: Supply of 1400mm dia fans and fixing of wires for primary Fan point with 2 runs of 650 grade 1.5 sq.mm, ISI marked PVC insulated FRLS multi strand copper conductor wires conforming to IS :694.	Fan Points: Supply of 1400mm dia fans and fixing of wires for primary Fan point with 2 runs of 650 grade 1.5 sq.mm, ISI marked PVC insulated FRLS multi strand copper conductor wires conforming to IS :694 (With latest amendments) in 25mm dia, heavy gauge fire retardant PVC conduits concealed in wall/ column/ ceiling / floor including supply and fixing of 1 No. 10 Amps single pole modular type switch in anodized box and earthing with 1.5 sqmm multi strand PVC insulated wire run continuously along with conduit including supply of all fixing materials accessories like 3 plate ceiling rose / batten holder / Fan holder and interconnections completed as required.	No	10
9.3	Air Conditioner Points: Supply of 2Ton, 5Star AC and fixing of wires for primary AC point with 2 runs of 650 grade 4 sq.mm, ISI marked PVC	Air Conditioner Points: Supply of 2Ton, 5Star AC and fixing of wires for primary AC point with 2 runs of 650 grade 4 sq.mm, ISI marked PVC insulated FRLS multi strand copper	No	4

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	insulated FRLS multi strand copper conductor wires conforming to IS :694	conductor wires conforming to IS :694 (With latest amendments) in 25mm dia, heavy guage fire retardant PVC conduits concealed in wall/ column/ ceiling / floor including supply and fixing of 1 No. 20 Amps single pole modular type switch in anodized box and earthing with 2.5 sqmm multi strand PVC insulated wire run continuously along with conduit including supply of all fixing materials accessories like 3 plate ceiling rose / batten holder and interconnections completed as required.		
10	UPS			
	Supply, erection, testing and commissioning of 230 volts 1 phase, 50 HZ, 15 KVA UPS.The equipment shall be as per IS or IEC standards. Backup for the UPS should be 60 Min.	Supply, erection, testing and commissioning of 230 volts 1 phase, 50 HZ, 15 KVA UPS.The equipment shall be as per IS or IEC standards. Backup for the UPS should be 60 Min.	No	1
11	RUNS OF MAINS			
	Supply and wiring with 650 V grade PVC insulated M.S. Copper cable, conforming IS 694.	Supply and wiring with 650 V grade PVC insulated M.S. Copper cable,conforming IS 694, in suitable size of PVC conduit in wall / ceiling and insulated M.S. Copper earth wire run continuously along conduit includes supply of all fixing materials etc.		
11.1	2 runs of 2.5 Sqmm and 1 run of 1.5 Sqmm wire in suitable PVC conduit	2 runs of 2.5 Sqmm and 1 run of 1.5 Sqmm wire in suitable PVC conduit.	Rmt	650
11.2	2 runs of 4 Sqmm and 1 run of 2.5 Sqmm wire in suitable PVC conduit (15 A sockets)	2 runs of 4 Sqmm and 1 run of 2.5 Sqmm wire in suitable PVC conduit (15 A sockets)	Rmt	300
11.3	2 runs of 6 Sqmm and 1 run of 4 Sqmm wire in suitable PVC conduit,(15 A sockets)	2 runs of 6 Sqmm and 1 run of 4 Sqmm wire in suitable PVC conduit,(15 A sockets).	Rmt	200
12	LIGHT FIXTURES			
	Supply, testing and commissioning fo LED IP65 light fixtures with all required accessories and wiring from DB to fixture with 3 core 1.5 Sqmm CU flexible cable as per IS 1777 and IS 2418	Supply, testing and commissioning fo LED IP65 light fixtures with all required accessories and wiring from DB to fixture with 3 core 1.5 Sqmm CU flexible cable as per IS 1777 and IS 2418		
12,1	Cold Store Frozen - Suitable for working in - 20 Deg C - 150 W industrial type fixture make Philips, Bajaj, or BL Approved.	Cold Store Frozen - Suitable for working in - 20 Deg C - 150 W industrial type fixture make Philips, Bajaj, or BL Approved.	No	48

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12.2	Cold Store Chilled Suitable for working in 0 Deg C and 90% RH - 150 W industrial type fixture make Philips, Bajaj, or BL Approved, Cat Ref No BGHB 150 W LED or equivalent.	Cold Store Chilled Suitable for working in 0 Deg C and 90% RH - 150 W industrial type fixture make Philips, Bajaj, or BL Approved, Cat Ref No. BGHB 150W Led or Equivalent.	No	24
12.3	Ante Room	Ante Room	No	12
12.4	Loading Dock	Loading Dock	No	12
12.5	Normal 28 W tube Light for Misc areas (Plant Room , Pump Room, Secutrity Room , Staircase and Office).	Normal 28 W tube Light for Misc areas (Plant Room , Pump Room, Secutrity Room , Staircase and Office).	No	30
13	STREET LIGHTING	STREET LIGHTING :		
13.1	Supply, erection and commissioning of 25W LED outdoor fitting with 5 Mts long GI poles, 3 mm thick ms plate at bottom integral etc Complete. Cat. Ref. No. BCLST 25 W or Equivalent.	Supply, erection and commissioning of 25W LED outdoor fitting with 5 Mts long GI poles, 3 mm thick ms plate at bottom integral type street luminar with MCB control for every pole The rate includes, excavation refilling of soil, internal wiring from lamp to control gear connecter 32 mm dia GI plate for cable looping providing coupling upto 450 mm height from ground with all accessories make Phillips, Bajaj or BL approved. Cat. Ref. No. BCLST 25 W or Equivalent.	No	12
14	LIGHTENING PROTECTION :	LIGHTENING PROTECTION :		
14.1	Supply and installation of 40 mm dia copper, hallow sphere with a support of copper rod atleast 1 mtr length and installation of GI pipe support etc. with all the civil works.	Supply and installation of 40 mm dia copper, hallow sphere with a support of copper rod atleast 1 mtr length and installation of GI pipe support etc. with all the civil works.	Set	2
15	CABLES	CABLES		
15.1	2 X 3.5 C X 300 Sqmm AL.Armored cable from PCC to Refrigeration panel	2 X 3.5 C X 300 Sqmm AL.Armored cable from PCC to Refrigeration panel	Rmt	50
15.2	4 C X 16 Sqmm AL.Armored cable from PCC to street lights	4 C X 16 Sqmm AL.Armored cable from PCC to street lights	Rmt	300
15.3	3.5 C X 95 Sqmm AL.Armored cable from PCC to Admin Bulding DB	3.5 C X 95 Sqmm AL.Armored cable from PCC to Admin Bulding DB	Rmt	70
15.4	4 C X 16 Sqmm AL.Armored cable from PCC to RO Plant panel	4 C X 16 Sqmm AL.Armored cable from PCC to RO Plant panel	Rmt	30
15.5	4 C X 16 Sqmm AL.Armored cable from PCC to Borewell Starter	4 C X 16 Sqmm AL.Armored cable from PCC to Borewell Starter	Rmt	30
15.6	3.5 C X 70 Sqmm AL.Armored cable from PCC to Fire fighting panel	3.5 C X 70 Sqmm AL.Armored cable from PCC to Fire fighting panel	Rmt	30

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15.7	2 X 3.5 C X 400 Sqmm AL.Armored cable from AMF Panel to PCC Panel	2 X 3.5 C X 400 Sqmm AL.Armored cable from AMF Panel to PCC Panel	Rmt	50
15.8	3 X 3.5 C X 400 Sqmm AL.Armored cable from Transformer to PCC in 3 runs.	3 X 3.5 C X 400 Sqmm AL.Armored cable from Transformer to PCC in 3 runs.	Rmt	165
16	MISC and Other CIVIL WORKS	MISC and Other CIVIL WORKS		
16.1	Excavation for , Cable trenches ,Earthing strips foundation etc in Soft soil including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 metres.	Excavation for , Cable trenches ,Earthing strips foundation etc in Soft soil including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 metres.	RMT	150
16.2	Supply and installation of Transformer yard gate made out of 40mm dia GI pipe etc complete	Supply & installation of Transformer yard gate made out of 40mm dia GI pipe 1 1/2" 8 SWG GI wire mesh and two leaves gate with clear width of 3000 mm.	no	1
16.3	Supply & installation 8 SWG GI wire 1 1/2" mesh chain link fencing of 2.4 Mtr. height with 50 x 50x 6 MS angle at every 2 M interval and 50 x 50 x6 Angle at top. The fencing should be painted with 2 coat of red oxide primer with Aluminium paint	Supply & installation 8 SWG GI wire 1 1/2" mesh chain link fencing of 2.4 Mtr. height with 50 x 50x 6 MS angle at every 2 M interval and 50 x 50 x6 Angle at top. The fencing should be painted with 2 coat of red oxide primer with Aluminium paint	RMT	50
16.4	Supplying and making cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	Supplying and making cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	no	100
16.5	Supplying and fixing cable route marker with 10 cm X 10 cm X 5 mm thick G.I. plate with inscription there on, bolted /welded to 35 mm X 35 mm X 6	Supplying and fixing cable route marker with 10 cm X 10 cm X 5 mm thick G.I. plate with inscription there on, bolted /welded to 35 mm X 35 mm X 6 mm angle iron, 60 cm long and fixing the same in ground as required.	no	100

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	mm angle iron, 60 cm long and fixing the same in ground as required.			
16.6	Providing and fixing carbon dioxide (CO2) type fir extinguishers confirming to IS 2878-1976 and cylinders fully charged of 4.5. KG Capacity	Providing and fixing carbon dioxide (CO2) type fir extinguishers confirming to IS 2878-1976 and cylinders fully charged of 4.5. KG Capacity	no	2
16.7	Supply and fixing safety instruction chart in word (English & Hindi) duly framed with 5 mm thick glass as required (Approximate front area 1.20Sq.mtr)	Supply and fixing safety instruction chart in word (English & Hindi) duly framed with 5 mm thick glass as required (Approximate front area 1.20Sq.mtr)	no	10
16.8	Providing of set of 4 Nos 9.5 Ltr capacity GI bucket painted in post office red colour with prior coat of red -oxide paint and written with white paint FIRE and mounted on MS angle iron from with bracket of appropriate size & capacity including filling sand etc.	Providing of set of 4 Nos 9.5 Ltr capacity GI bucket painted in post office red colour with prior coat of red -oxide paint and written with white paint FIRE and mounted on MS angle iron from with bracket of appropriate size & capacity including filling sand etc.	no	1
16.9	Providing First Aid Box as approved by St. John Ambulance Brigade/Indian Red Cross confirmation to IS 2217-1963	Providing First Aid Box as approved by St. John Ambulance Brigade/Indian Red Cross confirmation to IS 2217-1963	no	1
16.10	Supply and fixing shock treatment chart duly mounted on a wooden frame with 5mm thick glass as required (approximate front area 1.2 sq.mtr)	Supply and fixing shock treatment chart duly mounted on a wooden frame with 5mm thick glass as required (approximate front area 1.2 sq.mtr)	No	5
16.11	Providing of rubber mat 1 mtr wide and 12mm thick to withstand 15k.V. dielectric strength as per IS 5424-1969	Providing of rubber mat 1 mtr wide and 12mm thick to withstand 15k.V. dielectric strength as per IS 5424-1969	no	10
16.12	Providing of rubber mat 1 mtr wide and 12mm thick to withstand 3.3k.V. dielectric strength as per IS 5424-1969	Providing of rubber mat 1 mtr wide and 12mm thick to withstand 3.3k.V. dielectric strength as per IS 5424-1969	no	10
16.13	Supply, fabrication and installation of cable tray with cable tray supports, supports for cable trench covers, supporting frame for mounting of	Supply, fabrication and installation of cable tray with cable tray supports, supports for cable trench covers, supporting frame for mounting of control panels, supports for mounting of ,Main	LOT	1

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	control panels, supports for mounting of ,Main Electrical Panel with 2 coats of enamel primer and 2 coats of epoxy paint Note - The rates shall be inclusive of grouting of supports , Anchor fastner,welding rods, nut,bolts,clamps,and any other consumable which required to complete the works.	Electrical Panel with 2 coats of enamel primer and 2 coats of epoxy paint Note - The rates shall be inclusive of grouting of supports , Anchor fastner,welding rods, nut,bolts,clamps,and any other consumable which required to complete the works.		
16.14	Supply of GI Perforated Cable tray with cover with supports as per IS	Supply of GI Perforated Cable tray with cover with supports as per IS		
16.14.1	300mm Width	300mm Width	RMT	500
16.14.2	450mm Width	450mm Width	RMT	200
16.14.3	600mm Width	600mm Width	RMT	100

Note:-

- The above quantities mentioned above in the BOQ are tentative only based are estimated based on the current assumptions, however the quantities may vary to any extent.
- The contractor is required to prepare the drawings and obtain approval from the consultant /BL before execution of any work.
- In the Online Price Bid Format the bidder should refer the detail description mentioned in this Annexure X, the brief description mentioned in the online price format is short description only which may or may not indicate the complete specification/requirement.
- The bid will be rejected if the Price Bid is sent in the hard copies or uploaded in the system along with the technical submissions.

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The Price Bid Format in the system shall be as follows, bidders are required to provide their rates as per this format but that same is required to put on line only and no hard copies or uploaded in the system.

It. No.	Brief Des.	Det. Des.	Unit	Qty	Supply						Installation				
					Rate	Basic Price	Duties & Taxes (%)		Duties & Taxes		Total Sup. incl. Taxes	Rate	Basic Price	Ser. Tax	Total Ins. Incl. Taxes
							Rs.	Rs.	%	%					

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ANNEXURE XI

DRAWINGS



