

JODHPUR VIDYUT VITRAN NIGAM LIMITED



BIDDING DOCUMENT

FOR

Supply, erection, installation and commissioning of material/ equipment for the work of release of AG connection in FY 2022-23 on turnkey basis in respect of various Circle under the domain of Jodhpur Discom against TNTW-613 to TNTW-624

PACKAGE NO. JdVVNL/SE (TW)/TNTW- 613 to 624

**SUPERINTENDING ENGINEER (TW)
JODHPUR VIDYUT VITRAN NIGAM LIMITED
NEW POWER HOUSE, JODHPUR-342003
TELEPHONE NO. 0291-2742343
FAX NO. 0291-2741772
E-mail- seclrcjdvvn1@gmail.com**

Bid Cost: Rs. 2950/-



**JODHPUR
VIDYUT VITRAN
NIGAM LTD**

**Office of the Superintending Engineer (TW)
New Power Industrial Area, Jodhpur -342003 (Rajasthan)**

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**JODHPUR
VIDYUT VITRAN
NIGAM LTD**

**Office of the Superintending Engineer (TW)
New Power Industrial Area, Jodhpur -342003 (Rajasthan)**

IMPORTANT DATES AND TIME FOR BID INVITATION

Package No. JdVVNL/SE (TW)/TNTW-613 to 624

“Supply, erection, installation and commissioning of material/ equipment for the work of release of AG connection in FY 2022-23 on turnkey basis in respect of various Circle under the domain of Jodhpur Discom against TNTW-613 to TNTW-624.”

TENDER PROCESSING FEES (NON-REFUNDABLE): Rs. 1180/- per Tender

COST OF SPECIFICATION (NON-REFUNDABLE): Rs. 2950/- per Tender

BID SECURITY AMOUNT/ EARNEST MONEY DEPOSIT: @2% (TWO PERCENT) OF BID AMOUNT
(TENDER WISE)

IMPARTMENT DATE AND TIME:

Bid Submission Start Date and Time	Fees Submission Last Date and Time	Last Date and Time For Bid Download and Bid Submission	Technical Bid Opening Date and Time
10-05-2022 09:00 Hrs.	30-05-2022 15:00 Hrs.	31-05-2022 17:00 Hrs.	01-06-2022 15:00 Hrs.

THE DETAILS OF LOTS/TENDERS ARE AS UNDER:-

Sr. No.	TN No.	Name of Circle/ Division	No. of AG Connections	Total Estimated Cost of Work (in Rs.)	Bid Security Amount/ EMD (in Rs.)	Completion Period
1	TNTW-613	Jodhpur DC (Balesar)	2453	42,38,50,991.45	84,77,020/-	as per clause of "GCC"
2	TNTW-614	Jodhpur DC (Mathania)	2686	48,54,99,568.44	97,09,991/-	
3	TNTW-615	Jodhpur DC (Phalodi)	3358	63,47,62,165.94	1,26,95,243/-	
4	TNTW-616	Jalore (Bhinmal, Raniwara, Sanchore)	2549	42,71,34,450.58	85,42,689/-	
5	TNTW-617	Barmer (Barmer, Balotra, Siwana, Gudamalani)	3076	65,05,31,886.63	1,30,10,638/-	

6	TNTW-618	Jaisalmer (Jaisalmer)	2296	68,46,14,809.30	1,36,92,296/-
7	TNTW-619	Bikaner DC (Nokha, Dist Div-II)	2481	50,61,47,079.90	1,01,22,942/-
8	TNTW-620	Bikaner DC (Khajuwala)	2315	38,82,65,739.86	77,65,315/-
9	TNTW-621	Hanumangarh (Hanumangarh, Sangaria)	2418	37,23,30,180.72	74,46,604/-
10	TNTW-622	Hanumangarh (Nohar)	4666	71,96,07,898.00	1,43,92,158/-
11	TNTW-623	Sri Ganganagar (Suratgarh)	5494	1,49,75,46,431.46	2,99,50,929/-
12	TNTW-624	Churu (Sardarsahar)	3340	73,69,35,363.56	1,47,38,707/-

PLACE OF SUBMISSION OF BIDS	at http://eproc.rajasthan.gov.in
SUBMISSION OF BANKERS CHEQUE/ DEMAND DRAFT AND BANK GUARANTEE	Before 3:00 P.M. on the scheduled date for submission of respective fee for bid at office of Sr. A.O (CPC) New Power House, Industrial Area, Basni, Jodhpur
OPENING OF TECHNICAL BIDS	http://eproc.rajasthan.gov.in in office of S.E. (TW), Jodhpur
DATE & TIME OF OPENING OF FINANCIAL BIDS	Will be intimated later to the Technically qualified bidder
WEBSITE FOR DOWNLOADING TENDER DOCUMENT, CORRIGENDUMS, ADDENDUMS ETC DRAFT FOR TENDER FEE, EMD AND PROCESSING FEE	http://energy.rajasthan.gov.in/jdvvn1 , www.eproc.rajasthan.gov.in , http://sppp.raj.nic.in
VALIDITY OF TENDERS REQUIRED UPTO	As per GCC.
TENTATIVE QUANTUM OF WORK	As per G-Schedule / BoQ
CONTACT PERSON (AUTHORIZED BID SIGNATORY)	Superintending Engineer (TW) JdVVNL, Jodhpur
CORRESPONDENCE ADDRESS	Superintending Engineer (TW) JdVVNL, Jodhpur, New Power House, Jodhpur
MOBILE NO.	9413359010
TELEPHONE NO.	0291-2742343
FAX NO.	0291-2741772
WEBSITE	1. http://energy.rajasthan.gov.in/jdvvn1
	2. http://risl.rajasthan.gov.in
	3. http://sppp.raj.nic.in
E-MAIL	Info.risl@rajasthan.gov.in , seclrcjdvvn1@gmail.com
Address of RISL	Rajcomp Info Services Limited (RISL) 1st floor, Yojna Bhawan, Tilak Marg, C-Scheme, Jaipur (Raj.)
	Phone: 0141-5103902, 4031900, Fax: 0141-2228701
	Web: http://risl.rajasthan.gov.in , Email: Info.risl@rajasthan.gov.in

IMPORTANT NOTES

1. EMD could be furnished in Bankers cheque/D.D. or 20% in Bankers cheque/D.D. and balance 80% in the form of bank guarantee.
2. **The tender/bid shall only be submitted through online tendering system of www.eproc.rajasthan.gov.in.**
3. Bidders who wish to participate in this tender will have to register on **<http://eproc.rajasthan.gov.in>** (bidders registered on eproc.rajasthan.gov.in before 30.09.2011 needs to register again). To participate in online tenders, Bidders will have to procure Digital Signature Certificate (Type – II or Type – III) as per Information Technology Act-2000 using which they can sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency i.e TCS, Safecrypt, Ncode etc. or they may contact e-Procurement Cell, Department of IT & C, Government of Rajasthan for future assistance. Bidders who already have a valid Digital Certificate need not to procure a new Digital Certificate.
4. **Contact No.** 0141 – 4022868 (Help desk of RISL - 10.00 AM to 6.00 PM on all working days)
5. **E-mail:** eproc@rajasthan.gov.in
6. **Address:** e-Procurement Cell, RISL, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur.
7. Bidders should go through the website <http://eproc.rajasthan.gov.in>, should refer to the website and go through the link “Help For Contractors”, “Information About DSC”, “FAQ” and “Bidders Manual Kit” and clause no. 5 of Section-I to know the process for submitting the electronic bids at the website.
8. The ‘Instructions to bidders’ and other terms and conditions of this tender pertaining to the bidding process generally follow the guidelines of e-tendering system of the government of Rajasthan, available at URL <http://eproc.rajasthan.gov.in>. However, wherever there is any anomaly between the conditions referred to in this document and the GoR e-tendering system, the later shall be final.
9. The complete bid document has been published on the websites, www.jodhpurdiscom.in and <http://www.eproc.rajasthan.gov.in> for the purpose of downloading.
10. The downloaded bid document shall be considered valid for participation in the bid process subject to submission of required Bid document fee of Rs. 2950/- only and e-Tender Processing Fee: Rs. 1180/- in Cash/ Demand Draft in favour of M.D, RISL payable at Jaipur.. A copy of the bid document fees receipt must be enclosed along with the Technical bid/proposal failing which the bid will be summarily rejected.
11. All the communication/correspondence including the bid document (Technical and Financial Bid) must be signed digitally and stamped on each page by the designated authorized representative of the bidder failing which the bid will be summarily rejected.
12. No contractual obligation whatsoever shall arise from the RFP/ bidding process unless and until a formal contract is signed and executed between the tendering authority and the successful bidder(s).

13. JdVVNL disclaims any factual/ or any other errors in this document (the onus is purely on the individual bidders to verify such information) and the information provided herein are intended only to help the bidders to prepare a logical bid-proposal.
14. Bids will be considered only in the prescribed form/ document. Bids not submitted in the prescribed format will be summarily rejected and EMD submitted along with the bids shall be forfeited. Also, bidders should refrain from providing the information which is not relevant.
15. Copies of various documents to be enclosed along with the bid-proposals must be legible and be self-attested by the authorized signatory with official seal. Claims made by bidder related to the project experience and other requirements shall be considered only when appropriate supporting documents are provided.
16. The Bids can be submitted up to date and time given as specified in the NIT.
17. The complete bidding process is defined in Vol.-II Part-I of this RFP document.
18. In case, a bidder imposes conditions which are in addition or at variance or in conflict with the terms and conditions as specified in this RFP document, all such bid-proposals will be summarily rejected and EMD submitted along with the bids will be forfeited.
19. Tendering Authority reserves the complete right to accept or reject in part or full any or all the offers without assigning any reasons whatsoever. No further discussion/ interaction will be held with the bidders whose bids have been disqualified/ rejected by the purchaser/ tendering authority.
20. In case, a dispute arises with regard to interpretation/ omission/ error in the RFP document, bid submitted, other documents; the decision SE (TW), JdVVNL, Jodhpur will be final and binding upon the bidders.
21. Interested bidders may obtain further information from the office of the Superintending Engineer (TW), JdVVNL, New Power House, Industrial Area, Jodhpur on any working day from 10 am to 6pm.
22. Other terms and conditions which are not mentioned here shall be applicable as per provisions and Rules mentioned in RTPP Act 2012 and RTPP Rules 2013 and amended from time to time.

Superintending Engineer (TW)
Jodhpur Vidyut Vitran Nigam Limited

SECTION-I

INSTRUCTION TO BIDDERS (ITB)

1.0 GENERAL INSTRUCTIONS

The Jodhpur Vidyut Vitran Nigam Ltd, or any authority designated herein after called 'OWNER' will receive bids in respect of services as set forth in the accompanying specification. All bids shall be prepared and submitted in accordance with these instructions. The Bidder, in his own interest is requested to read very carefully these instructions and the terms and conditions as incorporated in General Conditions of Contract and Technical specification before filling the Bid proposal form. If he has any doubt as to the meaning of this specification or any portion thereof, he shall before submitting the Bid, refer the same to the Superintending Engineer (TW), Jodhpur in writing well in time before the specified date of opening of Bids so that such doubts may be clarified. Submission of the Bid shall be deemed to be the conclusive proof of the fact that the Bidder has acquainted himself and is in agreement with all the instructions, terms and conditions governing the specification, unless otherwise specifically indicated / commented by him in his Bid.

Bids submitted after the time and date fixed for receipt of bids as set out in the invitation to Bid may be rejected.

The works referred herein shall cover the entire scope of the proposal which include Supply, Erection, Testing & commissioning & commissioning of equipment including the successful completion of performance and guarantee tests which the owner desires to get executed.

2.0 INTRODUCTION OF WORK:

Jodhpur Vidyut Vitran Nigam Limited intends for Supply, Erection, Testing and Commissioning of proposed work of release of agriculture connections in the domain of Jodhpur Discom on turnkey basis under TN- 613 to 624 of Jodhpur Discom.

- 2.1 The contractor is advised in its own interest to examine the bid documents, instructions, forms, terms and general information. Failure to provide information, which is essential to evaluate the bid or to provide timely clarification or substantiation of the information supplied or submission of bid not substantially responsive to the bid document may result in disqualification.
- 2.2 The scope of the proposal shall be on the basis of a single bidder's responsibility, completely covering all the Supply, Erection, Testing and Commissioning activities specified under the accompanying technical specification.

3.0 FIELD CONDITIONS

- (1) The bidder may in its own interest, before submitting the bid, inspect and examine the area involved and satisfy themselves regarding the existing system.
- (2) For ascertaining the existing system the bidder may contact concerned XEN (O&M) / concerned AEN (O&M). For any clarification regarding this document the prospective bidder may contact to SE (TW).
- (3) No claim for change in the bid or terms & conditions of the contract shall be entertained on the ground that the conditions are different than what were contemplated.

4.0 AMENDMENTS TO BID DOCUMENT

- I. At any time prior to the deadline for submission of the Bids, the NIGAM may amend the Bidding Document by issuing addenda.
- II. The NIGAM, at its discretion for any reason whether at its own initiative or in response to a clarification requested by a bidder may add, modify or remove any element of the Goods or any component of Related Service entirely or any part thereof from the bid document. Such amendments will be uploaded online. In order to provide prospective Bidders reasonable time in which to take the amendment into account in preparing their bids, the NIGAM may, at its discretion, extend the last date for the receipt of Bids.
- III. Any addendum issued shall be part of the Bidding Document and shall be uploaded online.
- IV. To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Purchaser may, at its discretion, extend the deadline for the submission of the Bids

5.0 DUE DATE EXTENSION

Extension to the due date of submission & opening of the bid, if considered necessary may be done by JdVVNL.

6.0 DEVIATION FROM BID DOCUMENTS

The offer must have 'No Deviation' certificate as per bid document. In absence of the same, bid may be consider as non-responsive.

7.0 QUALIFICATION REQUIREMENTS

The qualification requirements of the bidders are mentioned in Section-IV of the bidding documents. The bids of bidders fulfilling these requirements only would be considered for evaluation & award of contract.

8.0 SUBMISSION OF BIDS:

The bidders, in their own interest, are requested to read very carefully Section-I (Instruction to bidders), Section-II (General Condition of Contract), Section-III Part-IA & IB (Supply, Erection, Testing and Commissioning Condition of Contract), section-IV(PQR) & all Schedules before filling the bid. The Bid documents be downloaded from JdVVNL website <http://energy.rajasthan.gov.in./jdvvnl>, or

<http://eproc.rajasthan.gov.in> and upload the Bid on website of RISL www.http://eproc.rajasthan.gov.in/ <http://sppp.rajasthan.gov.in> No hard copy of the bidding documents will be provided to the bidders through this office. The cost of Bid document as published in NIT shall be furnished along with BID SECURITY & processing fee before opening of bid and scan copy be upload on website of RISL. The document shall be downloaded/ uploaded in the manner prescribed in bid document.

- 8.1 Bid shall be submitted online in the electronic format attached here to and all blanks in the Bid and the schedule to the specification shall be duly filled in. The completed forms, schedule(s) shall be considered as part of the contract documents in the case of successful bidder (s).
- 8.2 No alteration shall be allowed in format of the Bid specification and schedules. The bidder must comply entirely with specification.
- 8.3 The Bid and all accompanying documents shall be in English Language and shall be signed digitally by a responsible and authorized person. The name, designation and authority of the signatory shall be stated in the Bid.
- 8.4 Bid should be filled in only with ink or typed and must be submitted online after signing digitally.
- 8.5 All additions, alterations and over-writing in the bid must be clearly signed by the signatory of the bidder otherwise bid will be summarily rejected.
- 8.6 The bidder must quote the prices strictly in the manner as indicated herein, failing which bid is liable for rejection. The rate/prices shall be entered in words as well as in figures. These must not contain any additions, alterations, over-writing, cuttings or corrections and any other marking which leave any room for doubt.
- 8.7 Nigam will not be responsible to accept any cost involved in the preparation or submission of bids.
- 8.8 Any printed conditions of sale on the bid shall not be accepted by Nigam.
- 8.9 The Bid offer shall be submitted in time specified on <http://eproc.rajasthan.gov.in>, in electronic format in the prescribed manner:
- 8.10 All bids and accompanying documents shall be addressed to the S.E. (TW) Jodhpur Vidyut Vitran Nigam Limited, Jodhpur
- 8.11 The bidder should sign the Bid documents digitally and stamped on each page with self-attestation.
- 8.12 The Bids given in the form other than prescribed form will not be considered.
- 8.13 The conditional bids shall not be accepted.
- 8.14 The required material shall be procured from the approved vendors with SE (TW), JdVVNL, Jodhpur only. Any item which are not approved with SE (TW), JdVVNL but necessarily required for project, the same shall be got approved by the successful bidder(s) by submitting of item wise GTP, Test reports and manufacturers authorization.**

8.15 JdVVNL can ask the bidder to submit any document in original.

9.0 DOCUMENTS TO BE UPLOADED WITH THE BID:

The Bid shall be accompanied with the following schedules, documents. The Bid who is not accompanied by any or all the following mentioned schedules, documents or is accompanied by incomplete annexure/ schedules is liable for rejection.

- a. **Cover I** for details of BID SECURITY, Bid E-processing fee and Cost of Bid document as detailed below:
- i. Proof of depositing BID SECURITY (DD/Banker's Cheque/BG)
 - ii. Electrical contractor registration certificate of Rajasthan State Govt.
 - iii. Proof of depositing DD/Banker's Cheque towards e- Bid processing fee.
 - iv. Proof of depositing cost of Bid Documents (DD/Banker's Cheque).
- b. **Cover II** for Techno- Commercial Bid as detailed below duly signed and stamped:
- i. Bid Proposal Form.
 - ii. Schedule-1 for confirmation with regard to "NIL DEVIATION" in respect of commercial terms & conditions of the specifications.
 - iii. Schedule-2 for confirmation with regard to "NIL DEVIATION" in respect of Technical terms & conditions of the specifications.
 - iv. Schedule 3 A & 3 B "Qualification Requirement". Details indicating execution of works during last five preceding financial years along with supporting documents like copy of W.O., G-Schedule, final bill, duly notarized completion certificate etc. specified in "Qualification requirements".
 - v. Schedule-4 Work Completion.
 - vi. Schedule-5 List of Equipments & Technical Hands.
 - vii. Schedule-6 Check List for Bid Qualification
 - viii. Schedule-7 Check List for Commercial Terms.
 - ix. Schedule-8 Tax/GST Structure.
 - x. Schedule-9 Check List for Technical Terms.
 - xi. Copy of class "A/B/C" Electrical contractor license issued by Government of Rajasthan.
 - xii. Copy of registration with labour department.
 - xiii. Power of Attorney on Non-Judicial Stamp Paper of Rs.500/-for authorized signatory to sign the Bid document digitally.
 - xiv. Name & correspondence address of the bidder along with phone /Fax No. & email address.
- c. **Cover-III** For financial / price bid / BOQ (to be filled in .xls format) in prescribed schedule.

This price bid shall include submission of details of prices as per G - Schedule of the specification. The price bid will be opened only after being satisfied with Technical and Commercial Bid as per qualifying requirement stipulated in the Specification and bid of such qualified bidders will only be opened. The date of opening of such price Bids will be intimated in due course of time.

10.0 INFORMATION REQUIRED WITH THE PROPOSAL

- I. Oral statements made by the Bidder at any time regarding quality, quantity or

arrangement of the equipment or any other matter will not be considered.

- II. The bidder may use in the bid Standard catalogue pages and other documents to provide additional information and data as deemed necessary.
- III. The Bidder, along with its proposal, shall submit a list of recommended erection equipment's and supply materials, which may be required for the purpose of erection of equipment.
- IV. In case the 'Proposal' information contradicts the specification requirements, the specification requirements will govern, unless otherwise brought out clearly in the technical/ commercial deviation schedule.

11.0 RECEIPT AND OPENING OF BIDS.

- I. **Bidder shall submit their bid in electronic format, digitally signed and stamped on each page. Bidder shall procure Digital Signature Certificate (DSC) as per IT act - 2000.**
- II. **The electronically received bids will be opened in the office of the Superintending Engineer (TW), Jodhpur on stipulated date & time in the presence of such bidders or their authorized representative, who choose to be present. The system does not permit electronic submission of late Bids after the due date & time.**
- III. In case, the date fixed for opening of the Bids be declared as a public holiday, the bid shall be opened on the next date on which office re-opens after such holiday(s).

12.0 FORMAT AND SIGNING OF BID:

- I. The Bid must contain the name, designation and place of business of the person or persons making the Bid and must **submit online & signing digitally with his DSC (Digital Signature)**. Bid by a partnership firm must be furnished with full names of all the partners and should be signed **digitally** by one of the member of partnership firm or by a authorized representative indicating the designation of the person or persons, with authority letter signed by the Chairman/ Secretary other person authorized to bind the Corporation / Company in the matter.
- II. Bid by a partnership must be furnished with full names of all partners and be signed with the partnership firm name, followed by the signature(s) and designation(s) of the authorized partner(s) or other authorized representative(s).
- III. Bids by corporation/ company must be signed with the legal name of the corporation/ company by the President, Managing Director or by the Secretary or other person or persons authorized to bid on behalf of such corporation/ company in the matter.
- IV. Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the bid.
- V. The Bidder's name stated on the proposal shall be exact legal name of the firm.
- VI. Erasures or other changes in the bid documents shall bear the initials of the person signing the bid.

VII. Bids not conforming to the above requirements of signing shall be disqualified.

13.0 EFFECT AND VALIDITY OF BID :

- i. The submission of any bid connected with these documents and specification shall constitute an agreement that the bidder shall have no cause of action or claim, against the owner for rejection of his bid. The owner shall always be at liberty to reject or accept any bid or bids at his sole discretion and any such action will not be called into question and the bidder shall have no claim in that regard against the owner.
- ii. The bids shall be valid for a **minimum period of 90 (Ninety) days** from the date of opening of bids or **70 [Seventy] days from the date of opening of financial bid** whichever is later. Bids mentioning a shorter validity period than specified are likely to be summarily rejected /ignored.

14.0 BID SECURITY :

- i) The bidders shall furnish BID SECURITY @2 %(two percent) of bid amount. The bid security may be given in the form of a banker's cheque or demand draft or 20% in Bankers cheque/ D.D. and balance 80% in the form of bank guarantee, in specified format, from scheduled Bank which shall be got verified from the issuing bank. The banker's cheque or demand draft shall be in favour of "Senior Accounts Officer (CPC), JdVVNL, Jodhpur". The BG shall be furnished on non-judicial stamp papers of Rajasthan State worth 0.25 % of BG value (max. upto Rs. 25,000/-) in the prescribed format in favour of the Superintending Engineer [TW], JdVVNL, Jodhpur. The Bank Guarantee shall initially be valid for a period of 180 days excluding the grace period of 30 days and thereafter the validity shall have to be extended from time to time as per requirement of Nigam. The bid security shall be deposited with Senior Accounts Officer (CPC), JdVVNL, New Power House, Jodhpur.
- ii) No other mode such as Postal orders/ cheques forms of instruments is acceptable.
- iii) In case of unsuccessful bidder, the Bid Security will be refundable on production of the original receipt within a fortnight after finalization of the Bid and provision of RTPP Act-2012 and RTPP-2013.
- iv) In case of successful bidder(s) the Bid Security will be taken into account in arriving at the amount of the security cum performance guarantee if bidder(s) desires to furnish cash security deposit. However if the security cum performance guarantee is furnished through bank guarantee (BG) the BID SECURITY will be released consequent to acceptance of such BG.
- v) The Bid security of unsuccessful bidders shall be refunded soon after final acceptance of successful bidder & signing of agreement and submitting performance security.
- vi) Bid security of a bidder lying with the procuring entity in respect of other bids awaiting decision shall not be adjusted towards bid security for the fresh bids. The bid security originally deposited may, however, be taken into consideration in case bids are re- invited.
- vii) No interest shall be payable on such Deposits.

- viii) The Bid security taken from bidder shall be forfeited in the following cases, namely:
- a) When the bidder withdraws or modifies its bid after opening of Bids.
 - b) When the bidder does not execute the agreement, if any after placement of supply/ work order within the specified period.
 - c) When the bidder fails to commence the supply of the goods or service or execute work as per supply/work order within the time specified.
 - d) When the bidder does not deposit the performance security within specified period after the supply/ work/order is placed.
 - e) If the bidder breaches any provision of code integrity prescribed for bidders specified in the act and chapter 6 of RTPP rules 2013.
- ix) The bank guarantee presented as bid security shall be got confirmed from the concerned issuing bank. However, the confirmation of the acceptability of a proposed issuer or of any proposed confirmer does not preclude the procuring entity from rejecting the bid security on the ground that the issuer or the confirmer, as the case may be, has become insolvent or has otherwise ceased to be creditworthy

15.0 COST OF SPECIFICATION:

The cost of Bid document as published in NIT shall be furnished along with BID SECURITY & E-Processing fee prior to opening of bid and scan copy be upload on website of e-procurement of Govt. of Rajasthan. The document shall be downloaded / uploaded in the manner prescribed in bid document. The cost of bid and BID SECURITY shall be furnished.

16.0 LATE BIDS:

The system does not permit electronic submission of late Bids after the due date & time.

17.0 CLARIFICATION OR MODIFICATION OF BIDS:

To assist in the examination, evaluation and comparison of bids, Nigam may ask Bidders individually for clarification, in writing. No change in the substance of the bid shall be permitted except as required to confirm the correction of any typographical error.

18.0 REJECTION OF BIDS

Any action on the part of the Bidder to revise the rates / prices and modification in the substance of original Bid, Submission of any supplementary information unless & otherwise asked for at his own instance after the opening of the Bid may result in rejection of the Bid and also debar him from submission of Bid to the NIGAM at least for one year.

The owner reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of contract,

without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for the owner's action.

19.0 OPENING OF FINANCIAL BID:

The date and time for opening "Financial bid" will be intimated to the short-listed Bidders by Nigam in due course through 'e'-procurement web portal. 'Financial Bid' of the Bidders, not short-listed shall not be opened.

20.0 SIGNING OF AGREEMENT:

The successful bidder shall, on receipt of Letter of Award from Superintending Engineer (TW), JdVVNL, Jodhpur enter into a contract with SE (TW), JdVVNL, Jodhpur by jointly signing an agreement. The draft of the agreement based on the terms sheet, detailed in Section-II shall be forwarded to the successful bidder for execution. The agreement shall be executed within fifteen days from the date issue of work order. The person to sign the agreement shall be duly authorized by the Bidder.

21.0 UNDERSTANDING & CLARIFICATIONS ON DOCUMENTS & SPECIFICATIONS.

The Bidder is required to carefully examine the specifications and documents and fully inform himself as to all the conditions and terms matters which may in any way affect the Work or the cost thereof. If any Bidder finds discrepancies or omissions in the specifications and documents or is in doubt as to the true meaning of any part, he shall at once request in writing for an interpretation / clarification by the owner. The Owner, Then, will issue interpretation and clarifications as he may think fit in writing. After receipt of such interpretations and clarifications, the Bidder may submit his bid but within the time and date as specified in the Invitation to Bid. All such interpretations and clarifications shall form a part of the specifications and documents, and accompany the bidder's proposal.

Verbal clarifications and information given by the owner or his employee(s) or his representative(s) shall not in any way be binding on the owner.

22.0 PRICES, TAXES & DUTIES :-

22.1 Any income tax, surcharge on income tax and other corporate taxes as applicable shall be deducted at source, as per the prevailing Govt. rules by payment making authority from each bill. Necessary TDS certificate shall be issued by payment making authority.

22.2 Deduction of cess at source @ 1% from the each running bills of all running projects of the contractors on account of the building and other construction workers (regulation of employment and conditions of service) act, 1996 & the building and other construction workers welfare cess act 1996 and deposit the

same under the following budget head through challan under intimation to the cess collector and assessing officer of the respective jurisdiction within 30 days from the deduction of cess:-

The CESS will be deducted on whole value of erection contract.

- 22.3 **Any statutory variation in existing rates** of Goods and Service Tax (GST) during contracted completion/extended period shall be to Nigam's account. However, for claiming any such statutory variation, the contractor is required to furnish the documentary evidence / proof in support of the same for scrutiny and approval. Any downward variation in above rates of Goods and Service Tax (GST) shall have to be passed on to the Nigam.

23.0 POLICY FOR BIDS UNDER CONSIDERATION

Bids shall be deemed to be under consideration immediately after they are opened and until such time official intimation of award / rejection is made by the owner to the bidders. While the bids are under consideration, bidders and / or their representatives or other interested parties are advised to refrain from contacting by any means, the owner and / or his employees / representatives on matters related to the bids under consideration. The owner, if necessary, will obtain clarifications on the bids by requesting for such information from any or all the bidders, either in writing or through personal contact, as may be necessary. Bidder will not be permitted to change the substance of the bid after the bid has been opened.

24.0 PRELIMINARY EXAMINATION AND EVALUATION:

- 24.1 The Owner will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.
- 24.2 Prior to the detailed evaluation, the owner will determine the substantial responsiveness of each bid to the bidding document. For purpose of these clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding document without material deviations. A material deviation is one which affects in any way the prices, quality, quantity or delivery period of the equipment or which limits in any way to the responsibilities or liabilities of the bidder of any right of the owner as required in these specifications and documents. The Owner's determination of a bid's responsiveness shall be based on the contents of the bid itself without recourse to extrinsic evidence.
- 24.3 A bid determined as not substantially responsive will be rejected by the owner and shall not subsequently be treated responsive by the bidder by correction of the non-conformity by the bidder.

- 24.4 The “Price bids” of the bidders whose “Techno- commercial bid” found in order & responsive and meets, the qualification requirements as specified in the bidding documents, only shall be opened.
- 24.5 Bid price shall mean the price evaluated on the basis of cost of G-Schedule.
- 24.6 The owner may waive any minor infirmity or non-conformity or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder.
- 24.7 The owner will evaluate and compare the bids previously determined to be substantially responsive, pursuant to manner specified above, for each package separately. No bid will be considered if the complete requirements covered in the package is not included in the bid.

25.0 NEGOTIATIONS & AWARD OF CONTRACT

25.1 NEGOTIATIONS :-

- (1) The competent authority /committee shall have full powers to undertake negotiations.
- (2) Negotiations shall not make the original offer made by the bidder inoperative. The competent authority /committee shall have option to consider the original offer in case the bidder decides to increase rates originally quoted or imposes any new terms or conditions.
- (3) In case of non-satisfactory achievement of rates from lowest or most advantageous bidder, the competent authority /committee may choose to make a written counter offer to the lowest or most advantageous bidder and if this is not accepted by him, the committee may decide to reject and re-invite bids or to make the same counter-offer first to the second lowest or most advantageous bidder, then to the third lowest or most advantageous bidder and so on in the order of their initial standing and work / supply order be awarded to the bidder who accepts the counter-offer. This procedure should be used in exceptional cases only.
- (4) In case the rates even after the negotiations are considered very high, fresh bids shall be invited.

25.2 AWARD OF CONTRACT :

- (1) Notification of award of contract (LOI) will be made in writing to the successful bidder(s) by the owner.
- (2) The contract will be awarded to the best qualified and the substantially responsive bidder offering the lowest evaluated bid in conformity with requirements of these specifications and documents and the owner shall be the sole judge in this regard and subject to the provisions of these instructions to bidders and other terms and conditions detailed out in these

documents and specifications. A responsive bid is one which accepts all terms and conditions of these specifications and documents without any major modifications. A major modification is one which affects in any way the prices, quality, or execution period of the period of the work or which limits in any way the responsibilities or liabilities of the bidder or any rights of the owner as required in these specifications and documents. However, the owner may waive any minor formalities or irregularities in the bid.

26.0 NOTE:

- 26.1 The bidders are requested to submit their bids prior to last date of submission to avoid Non- submission of their bids up to prescribed date & time due to non-availability / hanging of website at last moments or any reason whatsoever. The last date of submission of bids will not be extended on such accounts.
- 26.2 Furnishing of Bid Security Deposit /Registration certificate/ Contractor electrical license issued by Govt. of Rajasthan proof for deposit of Bid Security, e-Bid processing fees & cost of Bid documents before techno- commercial bid opening is essential otherwise the techno-commercial bid in electronic form (cover II and III) will not be opened.
- 26.3 (i) The bidder will have to deposit prescribed cost of Bid specification by DD/Banker's Cheque payable in favour of **"Senior Accounts Officer (CPC), JdVVNL, Jodhpur** up to stipulated date & time in the office of the SE(TW), JdVVNL, Jodhpur
- (ii) The bidder have to deposit prescribed BID SECURITY **as per clause no.14 of ITB** by DD/Banker's Cheque/ B.G up to stipulated date & time in the office of the SE(TW), JdVVNL, Jodhpur.
- (iii) The bidder will have to deposit prescribed E-Processing Fee of Rs.1180/- by DD/Banker's Cheque in favour of **Managing Director, RISL, payable at Jaipur** with the SE(TW), JdVVNL, Jodhpur up to stipulated date & time in the office of the SE(TW), JdVVNL, Jodhpur.
- 26.4 Deviations, from technical and commercial terms & conditions, if any, shall invariably be stated in schedule 1 & 2. Mentioning of such deviations elsewhere will not be considered. The standard printed conditions of sales and other if any attached with the Bid will not be considered.
- 26.5 The purchaser will respond in writing to any request for clarification on Bid documents which it receives not later than 15 days prior to deadline for submission of Bid, after which no correspondence shall be entertained.
- 26.6 The bidders should provide complete information at the time of submission of bid. However, if the bidders are asked to furnish some clarification/ confirmation/ documents, the bidders are required to furnish the same within specified time failing which; the case shall be finalized /decided on the basis of available information. The responsibility of their bid being ignored on account of delay in furnishing of desired information/documents shall be of the bidder.

- 26.7 All Bid documents shall essentially be signed digitally and submitted on <http://eproc.rajasthan.gov.in> in time **as per checklist** provided with the Bid document. The checklist along with relevant page nos. shall also be submitted with the Bid.
- 26.8 The Bid documents can be downloaded from web site <http://eproc.rajasthan.gov.in> & <http://sppp.rajasthan.gov.in> . Details of this Bid notification can also be seen in NIT exhibited on web site <https://energy.rajasthan.gov.in/jdvvnl>, and are to be submitted online in electronic format **only** on website <http://eproc.rajasthan.gov.in>.
- 26.9 The bidders who are interested in bidding can download Bid documents from <http://eproc.rajasthan.gov.in> up to the stipulated date & time.
- 26.10 Bidders who wish to participate in this Bid enquiry will have to register on <http://eproc.rajasthan.gov.in> (bidders registered on eproc.rajasthan.gov.in before 30.09.2011 needs to be registered again). To participate in online Bids, Bidders will have to procure Digital Signature Certificate (Type – II or Type – III) as per Information Technology Act-2000 using which they can sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency or they may contact e- Procurement Cell, Department of IT & C, Government of Rajasthan for further assistance. Bidders who already have a valid Digital Certificate need not procure a new Digital Certificate. For any further query in this regard bidder may contact on Contact No. 0141 – 4022688 (Help desk working office hours on all working days) E-mail eproc@rajasthan.gov.in Address: e-Procurement Cell, RISL, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur.
- 26.11 Bidder shall submit their offer online in electronic formats both for technical and financial proposals. However, cost of specification, BID SECURITY and processing fees shall be submitted up to stipulated date & time in the office of the Superintending Engineer (TW), JdVVNL, Jodhpur. The bidder shall upload scanned copies of DDs / acknowledgement of above fee documents along with their online bid.
- 26.12 Bidders are also advised to refer “Bidders Manual” available under “Downloads” section for further details about the e-Bidding process.
- 26.13 All the required information shall be furnished strictly in prescribed Schedules/Formats only. Any information indicated other than the prescribed schedules/formats shall not be entertained. The bid shall be evaluated on the basis of information furnished in the prescribed Schedules/Formats.

27.0 GENERAL:

- 27.1 The bidder shall treat the details of the specification and other Bid documents as private and confidential and shall not reproduce without the written authorization of the NIGAM.
- 27.2 The NIGAM does not bind itself to accept the lowest or any Bid or any part of the Bid and shall not assign any reason(s) for the rejection of any Bid or a part thereof.

27.3 The fact of submission of Bid to the NIGAM shall be deemed to constitute an agreement between the Bidder and NIGAM whereby such Bid shall remain open for acceptance by the NIGAM and Bidder shall not have option to withdraw his offer, impair or derogate the same. If the Bidder is notified during the period of validity of Bid that his Bid is accepted by the NIGAM, he shall be bound by the terms of agreement constituted by his Bid and such acceptance thereof by the NIGAM, until formal contract of the same Bid has been executed between him and the NIGAM in replacement of such agreement.

27.4 The successful Bidder shall have to execute the contract agreement with Superintending Engineer (TW) for the proper fulfillment of the contract. In case of ambiguous or contradictory terms and conditions mentioned in the bid, interpretations as may be advantageous to NIGAM may be taken, if satisfactory clarification is not furnished within the prescribed period. NIGAM will not be responsible for any cost or expenses incurred by the bidder in connection with preparation or submission of bids. Telex, Telegraphic, or mailed, Fax, bids shall not be acceptable.

Nigam reserves the right to:

- i) Amend the scope of the proposed contract Reject or accept any bid, Cancel the bid process and reject all applications, Vary the area.
- ii) Nigam shall neither be liable for any action nor be under any obligation to inform the bidders of the grounds for any of the above actions.

Note:

- i) The bidder has to submit self-attested photocopy of the online proof of Amount deposited.
 - ii) However the demand draft in favor of "MD RISL" shall be deposited in hard copy, up to stipulated date & time in the office of the SE (TW), JdVVNL, Jodhpur.
 - iii) The bidder shall also mail the information about deposition of above aforesaid amount to the SE (TW), JdVVNL, Jodhpur.
1. The bidders shall deposit the Bid security as per tender documents.
 2. Eligible bidders are advised to submit their bid well in advance without waiting till last date. JdVVNL will not be responsible for non-submission of bid due to any website related problems.

Note: All eligible interested bidders are required to get enrolled on e-tendering portal <http://www.eproc.rajasthan.gov.in>

SECTION-II

GENERAL CONDITIONS OF CONTRACT (GCC) FOR AWARDING CONTRACT ON TURN-KEY BASIS FOR RELEASE OF AGRICULTURE CONNECTIONS UNDER TNTW-613 to TNTW-624

Not with standing anything contained to the contrary in the specification or bid or any subsequent exchange of correspondence of these general conditions of contract shall prevail and shall be binding on the contractor and any change or variation expressed or impressed howsoever made shall be in operative unless expressly sanctioned by the JdVVNL. The contractor shall be deemed to have fully informed himself and to have specific knowledge of the provisions of the general conditions of the contract mentioned here under.

1. DEFINITION OF TERMS:

- 1.1 In constructing these general conditions and the annexed specification, the following words shall have the meaning herein assigned to them unless there is anything in the subject of the context inconsistent with such construction.
- 1.2 The “purchaser” shall mean the JdVVNL represented by Managing Director and shall include there legal personnel representative, successors and assignees. The “JdVVNL,” “Owner” shall mean the “purchaser”.
- 1.3 The “Bidder” shall mean and include one or more persons or any firm or any company or anybody incorporated who has submitted the bid in response to “invitation of bid”.
- 1.4 The “contractor” shall mean the bidder whose bid has been accepted by the “purchaser” and shall include the bidders’ heirs, legal representatives, successors and assignees approved by the purchaser.
- 1.5 The “Managing Director ” shall mean the Managing Director JdVVNL
- 1.6 The “Engineer” shall mean the Zonal Chief Engineer, Add. C.E., Superintending Engineer or other Engineer or officer of JdVVNL for the time being or from time to time duly authorized and appointed in writing by the purchaser to act as Engineer or Inspector for the purpose of the contract. In case where no such Engineer has been so appointed, the word “Engineer” shall mean the purchaser or his duly authorized representative.
- 1.7 The “Erected Works” shall mean the erection of work including supply of material used for the same.
- 1.8 “Plant”, “Material”, “Stores”, “works”, shall mean and include the plant and material to be provided and work or works to be done by the contractor under the contract.

- 1.9 The “Contract” shall mean and include the following :-
- i) Invitation of bid.
 - ii) Instructions to bidders.
 - iii) Bid form including schedule of prices.
 - iv) Bid Security.
 - v) Letter of Intent and its acknowledgement.
 - vi) Performance Guarantee.
 - vii) Formal Work Order.
 - viii) Guaranteed Test Performance and Penalty.
 - ix) General conditions of contract.
 - x) Special Instructions.
 - xi) Site conditions.
 - xii) Specification, Specific conditions, schedules and drawing.
 - xiii) Addenda which may hereafter be issued by the purchaser to the contractor in the form of letter and covering letters and schedule of prices as agreed between the contractor and purchaser.
- 1.10 The “Specification” shall mean the specification, specific conditions annexed to the general conditions, the contract and the schedule thereto, if any.
- 1.11 The “Month” shall mean, English Calendar month i.e. period of thirty days and “Week” shall mean a period of 7 days.
- 1.12 The “Site” shall mean the place or places named in the contract and include, where applicable, the land and buildings upon or in which the works are to be executed.
- 1.13 The “Place of delivery” shall mean the place of delivery at which the contractor/supplier is responsible to deliver the materials at the contract price.
- 1.14 The “Test of Completion” shall mean such tests prescribed in the contract to be made by contractor before the plant is taken over by the purchaser as per these general conditions.
- 1.15 “Letter of Intent” shall mean the purchaser letter conveying his acceptance of the bid subject to such reservations as may have been stated therein.
- 1.16 The “Contract Price” shall mean the sum named in or calculated in accordance with the provision of the contract /purchase or any amendments thereto.
- 1.17 “Formal Work Order” shall mean the purchaser’s letter which may be issued

containing detailed terms and conditions of the Erection Works.

- 1.18 “Writing” shall include any manuscript, type written or printed statement under or over signature or seal, as the case may be.
- 1.19 The “Work Codes” shall mean the Indian Electricity Rules, Code of practice and Factory Rules and regulation applicable in state of Rajasthan on date of issue of the letter of Intent of such modification thereof as may be specially stipulated by competent state authority i.e. Electrical Inspector and Chief Inspector of Factories, Rajasthan.
- 1.20 Words importing “Person” shall include firms, companies, corporations and other bodies whether incorporated or not.
- 1.21 Words importing the “Singular” only shall also include the plural and vice versa where the context requires.
- 1.22 The contractor and purchaser shall as soon as possible, unless otherwise agreed upon enter into a sealed agreement for the proper fulfillment of the contract. The expenses of the completing and stamping the agreement shall be paid by the contractor and shall be furnished to the purchaser free of charge with three copies after the bid has been accepted by the purchaser. All orders/instructions to the contractor shall except as hear-in other wise provided be given by the Engineer on the behalf of the purchaser.

2. BID FORM AND ACCEPTANCE OF BID:

The purchaser is not bound to accept the lowest bid or any bid or assign any reason for the rejection of a bid. The purchaser also reserves the right to either call for fresh bids or to accept either the whole or a part of bid or to place orders to any increased or decreased quantities on the basis prices quoted.

3. SUBLETTING OF THE CONTRACT

Subletting of the contract (partially / fully) is not allowed.

4. CONTRACT DOCUMENTS & AGREEMENTS:

The contractor shall execute contract agreement with Superintending Engineer (TW) for the entire works & work order to be executed under the contract. The same shall be furnished on Rajasthan non – judicial stamp paper on the value applicable at the time of contract. The furnishing of such agreement shall be Sufficient & No other agreement with reference to individual work order shall be required. The contractor shall be under all legal & contractual obligations with reference to various commercial, technical & other condition of the contract during the currency of the contract. The agreement shall be kept in the office of Superintending Engineer (TW).

5. EXECUTION OF CONTRACT:

The successful bidder shall execute the contract agreement within 15 days from the date of receipt of work order.

6. STANDARD:

6.1 All work carried out shall conform to the requirement of relevant standards issued by any of the following and the bidder should specifically mention in each case the applicability of the relevant specifications.

- i) Indian standard Institution standard code, where ever applicable.
- ii) Indian Electricity Rules, 2005 with the latest amendments.
- iii) Other Standards approved by Purchaser with the latest amendments.
- iv) Indian Electricity Act, 2003 with the latest amendments.

6.2 Should the bidder wish to depart from the provision of these specification either on account of manufacturing practice or for any other reason, he shall clearly mention the departures and submit complete justification supported by information, drawings etc. as will enable the relative merits of his proposals to be fully appreciated. The engineer shall have the right to reject them and decision of the engineer shall be final and binding on the contractor.

6.3 In the event of the Specification and Contractor's drawing and tables etc. being found to disagree the erection of the contract equipment, the annexed specification shall be held binding unless the departures have duly approved in writing by the purchaser.

7. INDIAN ELECTRICITY ACT:

All the works covered by the contract shall be in accordance with the Indian Electricity Act, 2003 with the latest amendments and the Indian Electricity Rules, 2005.

8. SYSTEM OF UNITS DIMENSIONS MEASURES AND CALIBRATION

All dimensions, measures etc. shall be as per metric and CGS system units. All instruments, recorders etc. shall also be calibrated in metric and CGS system of units.

9. INDEMNITY:

In the event of any claim or demand being made or action being brought against the purchaser for infringement or alleged infringement of latter's patent in respect of any machine, plant , work or thing used or supplied by the contractor/ supplier under this contract or in respect of any method of using or working by purchaser of such machine, plant, works or thing the contract will indemnify the purchaser against such claim or demand and all cost and expenses arising from or incurred by reasons of such claim or demand provided that the purchaser shall notify the contractor within reasonable time any claim is made and that the

contractor shall if he so desires with the assistance of the purchaser, if required, by the Contractor's own expense, to conduct all negotiations for the settlement of the same or any litigation that may arise there from and provided that no such machine, plant work or thing shall be used by the purchaser for any purpose or in any manner other than that for which they have been supplied by the contractor and specified under the contract. The contractor shall take approval of designs and drawings before commencement of work if required.

10. REPLACEMENT OF DEFECTIVE WORK FOR MATERIAL

If, during the progress of the work, the Engineer decides and notify in writing to the contractor that the contractor has executed any unsound or imperfect work or has supplied any plant inferior in quality to that specified, the contractor on receiving details of such defects or deficiency shall at his own expenses, within such time as may be reasonably necessary for making it good, proceed to reconstruct or remove such work or supply fresh material upto the standard of the specification and in case the contractor fails to do so, the purchaser may on giving the contractor seven days notice in writing of his intention to do so proceed to remove the work complained if and, at the cost of the contractor, perform all such work of supply all such material provided that nothing in this clause shall be deemed to deprive the purchaser or effect any right under the contract, which he may otherwise have in respect of such defects or deficiencies.

11. COMPLETION OF WORK:

Completion period shall be mentioned by the purchaser in the bid in accordance with quantum / nature of work and as per necessity of work. The purchaser reserves the right to defer the execution period as indicated in the work order. However the works already executed should be accepted. The period during which the work(s) have been so deferred shall not be reckoned as delay in execution in terms of clause delay in Execution.

12. DELAY IN COMPLETION OF WORK

The time for execution period specified shall be deemed to be the essence of the contract and work(s) shall have to be completed not later than the date(s) specified. Should the contractor fail to execute the work or any part thereof within the specific execution period, the JdVVNL shall be entitled at his option:-

- (a) To effect recovery for **delay in execution @ ½% per week** or part thereof subject to **maximum of 5 % of delayed erected work.**
- (b) To cancel the contract or part thereof if so desired and to get it executed through other agency/contractor at the risk & cost of the contractor.
- (c) The adjustment in regard to the amount recoverable, if any, in terms of para 12(a) shall be made from the cash deposits/dues of the firm or by

operating the Bank Guarantees as may be available with the JdVVNL and/or in any other manner as may be deemed appropriate by the purchaser.

- (d) Any financial liability i.e. increase in rate of GST, insurance tariff etc. arising consequent upon failure of the contractor to adhere to the stipulated/extended execution schedule shall be to his (Contractor's) account.
- (e) Penalty towards unexecuted work on contractor's default:- Penalty for the work whose SJO was issued & provided to firm remains unexecuted due to contractor's default even after completion period expire and three months lapse thereafter, the employer is entitled to effect recovery @ **5 % of unexecuted value of work.**

13. QUANTITY VARIATION :

13.1 If the procuring entity does not procure any subject matter of procurement or procures less than the quantity specified in the bidding documents due to change in circumstances, the bidder shall not be entitled for any claim or compensation except otherwise provided in the bidding documents.

13.2 Repeat orders for extra items or additional quantities may be placed as per RTPP Act-2012 & RTPP Rules-2013, if it is provided in the bidding documents, on the rates and conditions given in the contract if the original order was given after inviting open competitive bids. Delivery or completion period may also be proportionately increased. The limits of repeat order shall be as under-

(a) 50% of the quantity of the individual items and 50% of the value of original contract in case of works.

Nigam also reserve the right to place repeat order even beyond 50% of ordered quantity of individual item in case it is needed.

13.3 The SE (O&M) will approve the bill of quantity in case the variation between the ordered value and finally surveyed amount for the ordered work is 10% after recording reasons thereof.

13.4 In case where the variation between the ordered value and finally surveyed amount or the ordered work is beyond 10% but up to 40%, the committee comprising the following members will approve the same after recording reasons thereof. –

- (i) The CE (O&M) / ZCE,
- (ii) The CE (MM / TW),
- (iii) The SE (TW),
- (iv) The SE (O&M),
- (v) The Sr.AO (TW),JdVVNL.

13.5 If the variation between ordered value and finally surveyed amount for the ordered work exceeds 40% such cases should be re-studied & be referred to CLPC for approval.

14. MAINTENANCE OF FACILITIES AND PERSONNEL:

14.1 FACILITY:

14.1.1 The Agency shall maintain all requisite facilities, T&P etc. of its own as required to carry out the work as per the specification.

14.1.2 The Agency shall provide and maintain a controlling office in the town for which work has been awarded for early execution of work.

14.1.3 The agency shall also maintain communication equipments like telephone with fax, mobile phone, Internet etc. for interaction with JdVVNL and others.

14.2 PERSONNEL:

14.2.1 The Agency shall maintain supervisory and other personnel for efficient management of the work under contract.

Officer-In-Charge	To have adequate experience and vision to take charge of the entire project and resolve problems so as to evolve an ideal system.
Skilled & unskilled workers	Sufficient manpower to achieve the targeted work in the time frame allowed with proper safety.
Office Staff	Sufficient manpower to achieve minimum guaranteed performance.

14.2.2 Person in-charge or an alternate shall be available for communication during all business hours.

14.2.3 Agency shall not change the office in charge / nodal officer, frequently.

14.2.4 The Agency shall furnish complete details including documents regarding the experience of the personnel proposed to be employed by him as required under provision as contract labour (R&A) act 1970. JdVVNL has right to verify the above at any time.

15. NODAL OFFICER/ENGINEER –IN CHARGE & SUPERVISING OFFICER:

a) To interact between the field offices and contractor, the concerned Superintending Engineer (O&M), JdVVNL, will be the Nodal Officer of the project.

b) The concerned Executive Engineer (O&M) will be the Engineer In charge for execution of the contract and the concerned Assistant Engineer (O&M) of Sub-division shall supervise the work carried out by the contractor.

16. BILL VERIFICATION :-

The Sr. Account Officer/Account Officer (CPC) shall made admissible payments ensuring all statutory deduction as applicable time to time & completion of all

contractual formalities incorporated in work order from running & final bills. The bills submitted by the contractors shall be dully verified & counter signature by the officers as under. The minimum percentage verification to be made by these officers shall be as indicated against them:

- i) By JEN – 100 % of each item & activity
- ii) By AEN – 20 % of each item & activity
- iii) By XEN- 10 % of each item & activity

The GPS coordinates with single line diagrams & Transformer Photo should be submitted along with running bill of each Agriculture connection, duly verified by JEN(O&M)/ AEn(O&M) concern, without this payment shall not be released.

The final bill shall be entertain only after furnishing final Account (MAS account in prescribed format) by the contractor of material issued to the contractor vis-a-vis its utilization along with documentary evidence of deposition of unutilized material & retrieved material (if any) dully verified by Engineer-In-charge.

17. GUARANTEE:

- 17.1 (a) The contractor shall guarantee amongst other things, the following:
- (i) Quality and strength of the material(s) used together with the workmanship and finish corresponding to the most modern practice(s).
 - (ii) Safe electrical and mechanical stresses on all parts of the equipment under all specified conditions of operation.
 - (iii) Performance figures in respect of the guaranteed technical particulars as finally agreed upon.
 - (iv) Satisfactory performance of materials/Equipment during the Guarantee period.
- 17.2 (b) Performance guarantee of major items such Distribution Transformers shall be given / furnished by Manufacturers & shall be arranged by the contractor directly in favour of the Nigam for the period equivalent to the period for which the guarantee are given to MM wing of Discom(s) against the P.O. placed directly by Nigam as per latest MM Specifications, **guarantee period of three years for Distribution Transformers. For this purpose Tripartite agreement shall be executed between contractor, supplier & Nigam.**
The performance guarantee period of rest of work will be 24 months from date of handing over taken over of project.

Before releasing of performance bank guarantee (3% of contract price) furnished by firm as per clause no. 28 (GCC), the bidder shall furnished 3 (three) % of supply value of above items either in the form of crossed Bank Draft/ banker's cheque or by way of Bank Guarantee for balance guarantee period from scheduled Bank which shall be got verified from the issuing bank. The BG shall be furnished on non-judicial stamp papers worth 0.25 % of BG value (max. upto Rs. 25,000/-) in the prescribed format in favour of the Superintending Engineer [TW], JdVVNL.

Should the factory test(s) carried out at site or test(s) arranged by the owner in exercising his option under the clause No.21 (GCC) on the material/Equipment/Plant or part thereof or its/their operation under service conditions for a period for which the guarantees are given to MM wing of Discom(s) against the P.O. placed directly by Nigam for all material /equipment. From the date of taking over work(s) that the material /plant/ equipment does not meet the guarantee(s) as aforesaid, it shall be optional for the owner to reject material(s), Plant(s), Equipment(s), or a part thereof and direct the contractor to rectify/ replace the material/Plant/Equipment so rejected within a reasonable period so as to make it meet the guarantees and requirements to the satisfaction of the owner. All expenses whatsoever in this connection shall be borne by the supplier/contractor.

18. GUARANTEE OF MATERIAL USED:

In case of any defects is observed in the material used by the contractor during the guarantee period, then they have to replace the defective material free of cost within a period of 72 hrs., in case if contractor fails to replace the defective material then the work may be got done by the NIGAM at its discretion & the available financial holds shall be withhold / fore-fitted without any further notice / correspondences.

19. FORCE MAJEURE CONDITIONS

If at any time during the currency of the contract the performance in whole or in part be prevented or delayed by reason of any war hostility acts of public enemy, civil commotion, sabotage, fire floods, explosion, epidemics, quarantine restrictions, strikes, lockouts or acts of God (hereinafter referred to as "Events") then provided Notice and adequate proof of the production/ dispatch/execution of works having suffered on account of these events, is given within 21 days from the date of occurrence thereof the provision of **sub- paras (a), (b) and (c) of clause 12 (GCC)** shall not be invoked by the contractor provided further that the execution of works under the contract shall be resumed, as soon as practicable after such event(s) has ceased to exist and the decision of the JdVVNL as to whether the execution have been so resumed or not shall be final and conclusive provided further that in case the strike/lockout prolongs beyond a period of thirty days, the contractor shall immediately inform about to the JdVVNL in which case the purchaser reserves the right to get executed work on order or part thereof from any other source at the risk and cost of the Contractor.

20. SUSPENSION OF WORKS :

The purchaser shall not be liable to pay the contractor any compensation whatsoever arising from suspension or for idle labour.

21. INSPECTION AND TESTING**21.1 Inspection & testing of material:**

21.1.1 The material as per final BOQ approved after joint survey with inception report shall be offered for inspection. The inspection offer is to be given to SE (TW). The inspection shall be carried by officer nominated by Nigam at the manufacturing Firm's work / Nigam's store. The firms work shall be intimated by the contractor in the final BOQ to be submitted with the inception report after joint survey conducted within commencement period after awarding the contract.

- (a) It is clarified that the Samples from the material received in stores shall be selected by the Nodal/Nominated officer within a period of 3 days and the same shall be tested within a weeks' time in the CTL thereafter.
- (b) The Bidder shall state in his Bid the places of manufacture, testing and inspection of various equipments offered by him. Unless specifically provided otherwise all tests shall be carried out at the vendors works before shipment.
- (c) The contractor shall intimate at-least 15 days in advance through notice(s) about the readiness of material for dispatch commensurate with specific delivery schedule, so as to enable the owner to depute his representative for inspection, testing & checking of the material/equipment. Nigam will arrange the inspection within 15 days from the date of receipt of inspection offer. For this purpose the date of receipt of the letter in the office of the work order placing authority shall be deemed as the date of call for inspection and not the date mentioned in the letter or the date of dispatch. In case material/equipment is not found ready by the representative of the owner deputed for inspection to the extent of the quantity indicated in the inspection call with tolerance of (-) 10% or if the inspection is not got carried out by any reason(s) attributed to the contractor an amount of Rs.7500/- only for the contractor's work located in the State of Rajasthan and an amount of Rs.15,000/- for the contractor's works located outside the State of Rajasthan will become payable by the contractor on this account to the Senior Accounts officer (CPC), JdVVNL, Jodhpur. Further, in cases where traveling by air is involved the inspection charges will be recovered on actual basis. The contractor will deposit the amount with the Senior Accounts officer (CPC), JdVVNL, Jodhpur immediately under intimation to the work order placing authority, failing which the subsequent call for inspection shall not be entertained. GST shall be paid extra as applicable.
- (d) In case the firm offers for the inspection and subsequently withdraw the inspection by telephone or by letter / FAX /email or at the time of visiting of Nigam's officer at his work for inspection then re-inspection charges Rs. 7,500/-

from the local supplier and Rs. 15,000/- from the outside supplier would be recovered at every occasion. GST shall be paid extra as applicable.

- (e) In case of re-inspection of the material on account of failure of CTL checking, the re-inspection charges as mentioned above would also be leviable in all such cases from the contractor.**
- (f) **Packing:-** The material/equipment shall be offered duly packed so as to enable the inspecting Officer to seal the inspected / cleared material for identification. The supplier / contractor shall provide such packing of the goods as is required to prevent their damages or deterioration during transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand without limitation rough handling during transit to their final destination as indicated in the contract. The packing shall be sufficient to withstand without limitation rough handling during transit and exposure to extreme temperature, salt and precipitation during transport and open storage. Packing case size and weights shall be taken into consideration where appropriate keeping in view, remoteness of the good's final destination and absence of heavy mechanized handling facilities at all points in transit as well as at the destination. The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract or in any subsequent instructions imparted by the owner.
- (g) The Owner reserves to himself the right of having any inspection or special test of a reasonable nature at contractor's premises or at sites, in addition to those prescribed in applicable standards and the enclosed technical specification.
- (h) When the tests have been satisfactorily completed at the Contractor's or sub-contractors works the Engineer shall issue a certificate to that effect but if the tests were not witnessed by the Engineer or his representative, the certificate would be issued after the receipt of test certificate by the Engineer, No equipment shall be shipped / dispatched before such a certificate has been issued.
- (i) The authorized representative of the owner shall have at all reasonable times access to the works and premises of the contractor and / or his associates, if any, and shall be free to inspect the works, examine & test the product(s) including raw materials used and the workmanship employed during / after manufacture.
- (j) The contractor shall also furnish the latest calibration certificate(s) of the testing instruments / equipments used for the testing of the materials / equipments as covered in the owner order, to the inspecting Officer. The testing instruments / machines should be got calibrated by the contractor from time to time from the Manufacturer of the testing instruments or any Govt. recognized testing laboratory. The calibration certificate(s) should not, in any case, be older than

one year at the time of presenting the same to the inspecting Officer. In case the contractor fails to comply with the conditions as aforesaid, a certificate in writing of the inspector / representative of the Owner that the contractor has failed to provide the facilities shall be conclusive.

- (k) Unless the inspection is specifically waived, no material shall be dispatched without inspection and clearance for dispatch by the owner's representative.
- (l) The owner reserves the right to reject all or any part of the material being manufactured or awaiting dispatch, due to any defect or deviations from the standard specifications prescribed, as observed during the inspection. In case of any dispute / difference in this regard the decision of the Superintending Engineer (TW) shall be final and binding.
- (m) The owner also reserves the right to get the material / equipment tested in any recognized Government Laboratory & claiming any compensation or rejecting the material/ equipment, if not found in accordance with the specification. All charges whatsoever consequent to such rejection and replacement / rectification shall be borne by the contractor.

21.1.2 Type Test Certificates:-

- (a) Original/attested photocopies of the latest Type test certificate(s) not older than three years from any recognized Government Laboratory, for all type tests wherever prescribed in the relevant latest edition of ISS (as applicable) as mentioned in technical specification shall be furnished by the successful bidder of the placement of award only. However the bidder shall have to furnish declaration to this effect that in the event of order they shall submit type test reports with the proposal for approval of sub-vendors. However, the owner reserves the right to get type tests conducted afresh by the contractor.
- (b) In case of any specific alternative requirement of type tests, the same shall be furnished as per Technical specification.
- (c) The contractor shall be required to furnish the routine/manufacturer(s) factory test certificate(s) for the tests carried out during manufacture in accordance with the relevant standard specifications.

21.2 Random checking of material at site:

- 21.2.1** In addition of material testing in CTL and after issuing the material from ACOS for further use at site. The owner or his representative may take random sample of material from site in presence of contractor representative available at site and to get it tested in CTL, failure of material in testing shall lead to rejection of balance material with contractor and same should not be

allowed for further used and have to be replaced by fresh material after successful testing in CTL.

21.3 A Random checking of workmanship of work going on:-

The owner or his representative shall on giving seven days notice in writing to the contractor setting out any grounds of objections which he may have in respect of the work, be at liberty to reject all or any part of the remaining work and all or any workmanship connected with such work which in his opinion are not in accordance with the contract or are in his opinion defective with reasons. In case of any dispute / difference in this regard the decision of the concerned Engineer In Charge i.e. Circle Superintending Engineer & Superintending Engineer (TW), JdVVNL shall be final and binding.

22. INSURANCE:

- (i) The agency at his cost shall arrange, secure and maintain all insurance as may be pertinent to the works and obligatory in terms of law to protect its interest and interest of the JdVVNL against all perils detailed herein. The form and the limit of such insurance as defined herein together with the under-writer in each case shall be acceptable to the JdVVNL. However, irrespective of such acceptance, the responsibility to maintain adequate insurance coverage at all time during the period of contract shall be of agency alone. The agency's failure in this regard shall not relieve him of any of his contractual responsibilities and obligations. The insurance covers to be taken by the agency shall be in a joint name of the JdVVNL and the agency. The agency shall, however, be authorized to deal directly with Insurance Company or companies and shall be responsible in regard to maintain of all insurance covers. Further the insurance should be in freely convertible currency.
- (ii) The agency shall obtain accident liability insurance for its employees for payment of compensation on account of injury, fatal or otherwise due to accident during course of operation carried out by him for the purpose of complying with his contractual obligations thereof. It shall indemnify JdVVNL against any claim from such employees or damage to property what- so- ever while these arise out of or in consequences of the execution of works, operation and all activities to be performed till the successful completion of contract shall be to the account of the agency. The agency shall be responsible for preference of all claims and make good the damages or loss by way of repairs and/or replacement of the equipment, damaged or lost. The transfer to title shall not in any way relieve the agency of the above responsibilities during the period of contract. The agency shall provide the JdVVNL with copy of all insurance policies and documents taken out by him in pursuance of the contract. Such copies of documents shall be submitted to the JDVVNL immediately after such insurance

coverage. The agency shall also inform the JdVVNL in writing at least sixty (60) days in advance regarding the expiry/cancellation and/or change in any of such documents and ensure revalidation, renewal etc., as may be necessary well in time.

- (iii) All costs on account of insurance liabilities covered under the contract will be on agency's account and will be included in contract price. However, the JdVVNL may from time to time during the pending of the contract, ask the agency in writing to limit the insurance coverage, risks and in such cases, the parties to the contract will agree for a mutual settlement, for reduction in contract price to the extent of reduced premium amount. The agency, while arranging the insurance, shall ensure to obtain all discounts on premium, which may be available for higher volume or for reasons of financing arrangement of the project.
- (iv) The Clause entitled 'Insurance' under this section covers the additional insurance requirements for the portion of the works to be performed at the site.
- (v) The agency shall take necessary insurance against loss, damage, fire, accidents and damages occasioned by the agency in the course of operation carried out by him for the purpose of complying with his contractual obligations thereof.
- (vi) The insurance as per **clause 22 (i) & 22 (ii) (GCC)** shall be in the joint names of the JdVVNL and the agency so that the JdVVNL and the agency are covered for the entire period of contract from the commencement of the contract and shall remain valid up to 30 days from the date of handing over all the works completed in all respects to the Superintending Engineer (TW).
- (vii) It will be the responsibility of the agency to lodge, pursue and settle all claims (for all the equipment and materials including items provided by JdVVNL) with the insurance company in case of any damage, loss, or fire and the JdVVNL shall be kept informed about it. The losses, if any, will have to be borne by the agency if the claims are not lodged and pursued properly in time or if the insurance company does not settle the same.
- (viii) The agency shall replace the lost/-damaged materials promptly irrespective of settlement of the claims by the underwriters and ensure the work progresses as per the agreed schedule(s).
- (ix) The agency shall also ensure the following: -
 - The insurance premium should be one time paid basis.
 - Deductible franchise should be minimum as per insurance rules. In case of any loss to the extent of deductible franchise, the same shall be borne by the agency.
 - The insurance should be valid from the date of start of work and shall remain valid up to 30 days from the date of handing over of the work to the Engineer in charge.

- Insurance policy shall be in joint name of Jodhpur Vidyut Vitran Nigam Limited and agency.
- The agency shall furnish computerized and stamped insurance policy. Insurance cover shall not be acceptable.
- A copy of insurance policy shall invariably be furnished to the Superintending Engineer (TW), Jodhpur Vidyut Vitran Nigam Limited, Jodhpur.

a. THIRD PARTY INSURANCE

The contractor shall accept in so far as the contractor provides indemnify the JDVVNL against all losses and claims in respect of injury or damage to any property what so ever while these arise out of or in consequence of the execution of works and against all claims proceeding, damage, costs, charges, expenses whatsoever, in respect of or in relation thereto. Accordingly the contractor shall before commencement of execution of the works insure against his liability for material or physical damage loss or injury which may occur to property including that of the JdVVNL or to any person including any employee of the JdVVNL by or arising out of the execution of the works are in carrying out of the contract.

b. REMEDY ON CONTRACTORS FAILURE TO INSURE

If the contractor fails to effect and keep in force to insurance referred to in clauses above hereof or any other insurance which he may be required to effect under the terms of contract when the JdVVNL may effect and keep in force any such insurance and pay any such premium / premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the JdVVNL, as aforesaid from any money due or which may become due to the contractor or recover the same as debt from the contractor.

23. EMPLOYEE'S COMPENSATION INSURANCE

The contractor shall be liable for ensuring Employee's compensation insurance as per provision.

24. LIABILITY FOR ACCIDENTS AND DAMAGES.

- a. The contractor shall be responsible for loss, damage or depreciation of the plant until the same is taken over or is deemed to be taken over.
- b. Until the plant is taken over or is deemed to have been taken over as aforesaid the contractor shall also be liable for and shall indemnify the purchaser in respect of all injury to person or damage to property resulting from the negligence of the contractor or his workman or sub-contractor or from defective design or work.
- c. The contractor will indemnify and save harmless the purchaser against all actions, suits, claims, demands, costs or expenses arising in connection with

injuries (other than such as may be attributable to the purchaser or his employees) suffered prior to the date when the plant shall have been taken over by person employed by the contractor or his sub-contractor on the work, whether at common law or under the Employee's Compensation Act, 1923, or any other statute in forces at the date of contract relating to the question of the liability of employees for injuries suffered by employees and will if called upon to do so take out the necessary policy or policies of insurance to cover such indemnity.

25. CONSIGNEE:

The consignee will be concerned XEN (O&M) or any other Officer designated by JdVVNL for receiving all the equipments and other material.

26. PRICES AND TERMS OF PAYMENT:

(A) PRICES

The prices shall be quoted for execution of work in the manner as desired in the " G schedule" on FIRM basis in all respect and inclusive of GST as applicable. The prices shall be quoted in Indian Currency "Rupees only". The bidder(s) shall quote the rates overall percentage below/above G-schedule indicated in BOQ.xls file.

(B) TERMS OF PAYMENT

- (i) Bills shall be presented by contractor indicating each item of work separately as per schedule of prices and purchaser shall be authorized to make any deduction as per terms of the contract.
- (ii) Any running bill submitted by the contractor for the work executed shall **not be less than agriculture connections covered in one cluster.**

One cluster – Minimum 50 Nos. agriculture connections released in all respect.

- (iii) 95% (Ninety five percentages) payment for the respective bills for erected works (Supply + Erection) shall be made to the contractors on submission of bill(s) to the **Sr. Accounts Officer / Accounts Officer (CPC) of Discom.** In the running bills the contractor shall furnish MAS account indicating the date of issue of each material duly verified by the bill verifying authorities.
- (iv) Balance 5% (five percent) payment will be released after ascertaining satisfactory performance of the work for a period of **24 (Twenty four) months** from the date of completion of work & taken by the engineer, subject to completion of the contractual formalities incorporated in the work order and after effecting recovery of all dues recoverable from the contractor.

- (v) The Sr. Accounts Officer/ Accounts Officer (CPC) while making payment of the bill shall ensure all statutory deduction as applicable from time to time and completion of all contractual formalities incorporated in work order from running & final bill(s).
 - (vi) Under some eventually, if contractor has to supply extra item then he should be paid for the material separately as per prevailing JdVVNL store issue rate without above premium on the date of work order and erection charges as per prevailing CLRC rates of JdVVNL.
 - (vii) Only 85% payment for the supply & erection works (erected works) shall be released of running bills and balance payment shall be released only on the submission of final bill which is to be furnished immediately on completion & handing over the respective work. Final bill shall be entertained only after submission of final account along with details of deposition of all retrieved material. No payment shall be made for supply only. Contractor shall be eligible for raising bills only after erection i.e. release of connection in all respect.
 - a. The retrieved material (if any) should be deposited in sub-divisional store through proper MCN before preferring the final bill. Necessary certificate be also recorded by field officers in this regard that all retrieved material has been deposited in sub divisional store while verifying the final bill.
 - b. **The GPS coordinates with single line diagrams & Transformer Photo should be submitted along with running bill of each Agriculture connection, duly verified by Feeder- In Charge, JEN(O&M), AEN(O&M) concern, without this payment shall not be released.**
 - c. Final account of all material issued to contractor / retrieved material shall be given by the contractor along with final bill. The contractor shall furnish the final account of material issued to him vis-à-vis its utilization including its location along with documentary evidence of deposition of unutilized material and retrieved material (if any). In absence of final account, the final bill shall not be entertained.
 - d. **Detail of agriculture connections shall be submitted with the Running Bills and the contractor shall upload the same in the prescribed format on Google Drive/ Software developed by IT wing. The bill verification authority shall verify the same and record certificate in this regard.**
- 27. BID SECURITY: -**
- i) The bidders shall furnish BID SECURITY @2 %(two percent) of bid amount. The bid security may be given in the form of a banker's cheque or demand draft or 20% in Bankers cheque/ D.D. and balance 80% in the form of bank guarantee, in

specified format, from scheduled Bank which shall be got verified from the issuing bank. The banker's cheque or demand draft shall be in favour of "Senior Accounts Officer (CPC), JdVVNL, Jodhpur". The BG shall be furnished on non-judicial stamp papers of Rajasthan State worth 0.25 % of BG value (max. upto Rs. 25,000/-) in the prescribed format in favour of the Superintending Engineer [TW], JdVVNL, Jodhpur. The Bank Guarantee shall initially be valid for a period of 180 days excluding the grace period of 30 days and thereafter the validity shall have to be extended from time to time as per requirement of Nigam.

- ii) No other mode such as Postal orders/ cheques forms of instruments is acceptable.
- iii) In case of unsuccessful bidder, the Bid Security will be refundable on production of the original receipt within a fortnight after finalization of the Bid.
- iv) In case of successful bidder(s) the Bid Security will be taken into account in arriving at the amount of the security cum performance guarantee if bidder(s) desires to furnish cash security deposit. However if the security cum performance guarantee is furnished through bank guarantee (BG) the BID SECURITY will be released consequent to acceptance of such BG.
- v) The Bid security of unsuccessful bidders shall be refunded soon after final acceptance of successful bidder & signing of agreement and submitting performance security.
- vi) Bid security of a bidder lying with the procuring entity in respect of other bids awaiting decision shall not be adjusted towards bid security for the fresh bids. The bid security originally deposited may, however, be taken into consideration in case bids are re- invited.
- vii) No interest shall be payable on such Deposits.
- viii) The Bid security taken from bidder shall be forfeited in the following cases, namely:
 - a) When the bidder withdraws or modifies its bid after opening of Bids.
 - b) When the bidder does not execute the agreement, if any after placement of supply/ work order within the specified period.
 - c) When the bidder fails to commence the supply of the goods or service or execute work as per supply/work order within the time specified.
 - d) When the bidder does not deposit the performance security within specified period after the supply/ work/order is placed.
 - e) If the bidder breaches any provision of code integrity prescribed for bidders specified in the act and chapter 6 of RTPP rules 2013.
- ix) The bank guarantee presented as bid security shall be got confirmed from the concerned issuing bank. However, the confirmation of the acceptability of a proposed issuer or of any proposed confirmer does not preclude the procuring entity from rejecting the bid security on the ground that the issuer

or the confirmer, as the case may be, has become insolvent or has otherwise ceased to be creditworthy

28. PERFORMANCE BANK GUARANTEE

In order to secure / assure due fulfillment of the contract/ satisfactory work performance, the successful Bidder(s) upon receipt of preliminary acceptance letter / detailed work order as the case may be shall furnish within a period of 15 days a PBG equivalent to **3 (three) % of contract value** either in the form of crossed Bank Draft/ banker's cheque or by way of Bank Guarantee from scheduled Bank which shall be got verified from the issuing bank. The BG shall be furnished on Rajasthan non-judicial stamp papers worth 0.25 % of BG value & max. upto Rs. 25,000/- in the prescribed format in favour of the Superintending Engineer [TW], JdVVNL. The Performance Bank Guarantee is to be remained valid for a period of **commencement & completion period + 24 Months (Performance Period) + 6 months (grace period for lodging any claims as admissible)}** from the date of commencement of contract in the first instant and may have to be extended if desired. **It will be the sole duty of contractor to get the PBG extended well in time to maintain its validity as desired by the JdVVNL.**

The performance bank guarantee shall be released only after completion of 24 month performance period satisfactorily from the date of Handover of the project and furnishing of B.G against manufacturing warranty for balance period as per clause 17 of (GCC).

Additional PBG towards Guarantee of Distribution Transformer: @ 3 % supply cost of distribution transformers. This shall be in addition to 3% PBG of contract price. This will be released after expiry of GP of distribution Transformer and satisfactory report from field.

29. Additional Performance Security towards unbalanced bid:

In addition to Performance Security as per clause 28, an Additional Performance Security shall also be taken from the successful bidder in case of unbalanced bid. The Additional Performance Security shall be equal to fifty percent of Unbalanced Bid Amount. The Additional Performance Security shall be deposited in lump sum by the successful bidder before execution of Agreement. The Additional Performance Security shall be deposited through Demand Draft, Banker's Cheque or Bank Guarantee in favour of the Superintending Engineer (TW), JdVVNL, Jodhpur.

Explanation : For the purpose of this rule:

1. Unbalanced Bid means any bid below more than fifteen percent of Estimated Bid Value.

2. Estimated Bid Value means value of subject matter of procurement mention in bidding documents by the Procuring Entity.
3. Unbalanced Bid Amount means positive difference of eighty five percent of Estimated Bid Value minus Bid Amount Quoted by the bidder.

The Additional Performance Security shall be refunded to the contractor after satisfactory completion of the entire work. The Additional Performance Security shall be forfeited when work is not completed within stipulated period by the contractor.

30. DUE DATES OF PAYMENT:

Payment shall be due and payable by the purchaser in accordance with the provision of the contract within a reasonable period from the date of receipt of each invoice by the respective accounts officer duly supported by a certificate of the Engineer. The purchaser will take all possible effort to make payment to the contractor within 45 days. But in case of delay payment the purchaser shall not be liable to pay any interest on the outstanding amount to the contractor.

31. DEDUCTION FROM CONTRACT PRICE :

All costs, damages or expenses which the purchaser may have paid under the contract, for which the contractor is liable, may be deducted by the purchaser from any money due or becoming due by him to the contractor under this or any other contract or may be recovered by suit or otherwise from the contractor. Any sum of money due and payable to the contractor (including security deposit returnable to him) under this contract may be appropriated by the purchaser and set off against any claim of the purchaser for the payment of a sum of money arising out of or under any other contract made by the contractor with the purchaser.

32. REPLACEMENT OF DEFECTIVE PARTS AND MATERIALS:-

- 32.1 If during the progress of the works the engineers finds/ decides and inform in writing to the contractor, that the contractor has procured any equipment or part of the equipment unsound or imperfect or has used any equipment and or carried out the work inferior than the quality specified, the contractor on receiving details of such defects or deficiencies shall at his own expense within seven(7) days of his receiving the notice, otherwise, within such time as may be reasonably necessary for making it good, proceed to alter, re-construct or remove such work and furnish fresh, equipment and or re-do the work meeting with the standards of the specifications. In case the contractor fails to do so, the engineer may on giving the contractor seven (7) days notice in writing of his intentions to do so, proceed to remove the portion of the works so complained of and, at the cost of the contractor, perform all such work or furnish all such equipment provided that nothing in this clause shall be deemed to deprive the owner of invoking any rights under the contract which the owner may otherwise have in respect of such defects and deficiencies.

32.2 The contractor's full and extreme liability under this clause shall be satisfied by the payments to the owner of the extra cost, of such replacement procured, including erection, as provided for in the contract, such extra cost being the ascertained difference between the price paid by the owner for such replacement and the contract-price portion for such defective Equipment and repayments of any sum paid by the owner to the contractor in respect of such defective Equipment. The contractor's extreme liability under this clause shall be limited to repayment of all sums paid by the owner under the contract for such defective Equipment.

33. REMOVAL OF IMPROPER WORK AND MATERIALS:

- (i) The Engineer/Engineer's representative shall during the progress of the works have power to order in writing from time to time for the removal from the site within one week of receipt of notice, of any materials which in their opinion are not in accordance with the contract.
- (ii) In case of default on the part of the contractor in carrying out such an order, the employer shall be entitled to employ and pay other persons to carry out the same and all expenses consequent therein or incidental thereto shall be recoverable from the contractor by the employer from any money due or which may become due to the contractor.

34. FREE ISSUE ITEMS:-

- (i) The NIGAM may provide Single & three phase Energy meters as free issue item (if required in the project).
- (ii) Nigam reserve the right to issue any item as free issue item.

35. ADHERENCE TO COMPLETION PERIOD:-

Completion period shall be mentioned by the purchaser in the bid in accordance with quantum / nature of work and as per necessity of work. The purchaser reserves the right to defer the execution period as indicated in the work order. However the works already executed should be accepted. The period during which the work(s) have been so deferred shall not be reckoned as delay in execution in terms of clause delay in Execution.

36. EXTENSION OF TIME FOR COMPLETION:

Extension of time will be given by the component Authority /Committee if the delay is on the account of Discom.

37. WATCHING AND LIGHTING:

The contractor shall in connection with the works provide and maintain at his own cost all lights, guards, fencing and watching when and where necessary or as required by the Engineer/Engineer's representative or by any duly constituted authority for the protection of the works or for the safety and convenience of the Public and others.

38. CONTRACTOR TO KEEP SITE CLEAR:

During the progress of the works, the contractor shall keep the site free from all unnecessary obstruction and shall dispose of any construction plants, surplus materials and clear away and remove from the site any wreckage, rubbish or temporary works no longer required. If any permanent works on pathway such as tiles etc damaged or broken during the work that's all be made permanent

39. CLEARANCE OF SITE BEFORE AND AFTER COMPLETION:

On the Commencement and the completion of the works, the contractor shall clear away and remove from the site all constructional plants, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and works clear and in workman like condition to the satisfaction of the Engineer. If the site is not cleared, the same will be done by the Employer and the cost will be recovered from the contractor. Any materials/tools etc., at the site will become the property of the employer and contractor shall have no claim over it.

40. FINAL ACCOUNT:-

Final account of all material issued to contractor / retrieved material shall be given by the contractor along with final bill. The contractor shall furnish the final account (MAS A/c in prescribed format) of material issued to him vis-à-vis its utilization including its location along with documentary evidence of deposition of unutilized material and retrieved material (if any). In absence of final account, the final bill shall not be entertained.

41. DEATH, BANKRUPTCY ETC.

- a. If the contractor dies or dissolve or commit any act or bankruptcy or being corporation commences to be wound up except for reconstructions purpose or carry on his business under a receiver, the executors, successors or other representatives in law of the state of the contractor or any such receiver, liquidator or any person to whom the contract may become vested shall forthwith give notice thereof in writing to the purchaser and shall for one(1) month during which he shall take all reasonable steps to prevent stoppage of the work have the option of carrying out the contract subject to his or their providing such guarantee as may be required by the purchaser but not exceeding the value of the work for the time being remaining relieve unexecuted provided however that nothing above said shall be deemed to relieve the contractor or his successors of his or their obligations under the contract under any circumstances. In the event of stoppage of the work the period of the option under this clause shall be fourteen (14) days only. Provided that, should the above option be not exercised, the contract may be terminated by the purchaser by notice in writing to the contractor and the same power and provisions reserved to the purchaser in the event

of taking the work out of the Contractor's hands shall immediately become operative.

- b. Change of name of the bidder/supplier at any stage after bidding it to the purchaser shall deal with the contractor only in the name and at the address under which he has submitted the bid. All the liabilities/responsibilities for due execution of the contract shall be of the contractor and in no circumstances he shall be relieved of any obligation under the contract. The purchaser may, however at his discretion deal with Agents/ Representatives/ Distributors/ Manufacturers/Associates/ Principals/ Sister concerns and such dealing shall not absolve the supplier(s) from his responsibilities/ obligations/ liabilities so the purchaser under the contract. Any change/alteration of name/constitution/ organization of the supplier shall be duly notified to the purchaser and the purchaser reserves the right to determine the contract in case of any such notification in the event of such determination the purchaser may effect the purchase of the material not supplied from elsewhere at the risk and cost of the bidder/supplier.

42. BRIBES/COMMISSION ETC.:

Any bribes, commission, gift or advantage given, promised or offered by or on behalf of the contractor or his partners agent or servant or any one on his or on their behalf to any officer, servant, representative or agents of the purchaser or any person on his or their behalf, in relation to the obtaining or to the execution of this or any other contract with the purchaser shall in addition to any criminal liability which he may incur subject the contractor to the cancellation of this and all other contracts and also to payment of any class or damages resulting from any such cancellation. The purchaser shall then be entitled to deduct the amounts so payable from any money otherwise due to the contractor under this or any other contract, any question or dispute as to the commitment of any offence under the present clause shall think fit and sufficient and his decision shall be final and conclusive.

43. NOTICE TO CONTRACTOR:

Any notice to the contractor, may if the purchaser thinks it fit, be given by registered post to the registered office/site office of the contractor. Such postings shall be deemed good service of such notice and the time mentioned in the conditions for doing any act after notice shall be reckoned from the date on which such notice should reach the contractor in normal course.

44. SUPERVISION OF ERECTION OF EQUIPMENT BY THE CONTRACTOR

All the work shall be carried out under the direction and to the satisfaction of the Engineer. The purchaser shall have the option to direct the contractor to undertake supervision of erections of equipment, in which case he shall pay to

the contractor such sums of money as may be provided under the contract. The contractor shall then be entirely responsible for satisfactory erection, testing, commissioning and maintenance of the plant, notwithstanding that he may have been assisted by the Engineer in setting out of the same.

45. FAILURE TO EXECUTE THE CONTRACT:

Contractor failing to execute the order placed on them to the satisfaction of the JdVVNL under terms and conditions set forth therein, will be liable to make good the loss sustained by the JdVVNL. This is without prejudice to the imposition of penalty and forfeiture of any available financial holds.

46. COMPLIANCE OF LABOUR LAGISLATION:

The bidder shall discharge its liability of employer/ contractor in respect of personnel to be engaged for service, as set out in EPF and MP Act, 1952 ESI Act, 1948 (in ESI implemented area), Employee's compensation act, 1923 (in non ESI implemented area) contract labour (R&A) Act, 1970, Payment of Wages Act, 1936, Minimum Wags Act, 1948 etc. The bidder is required to get separate code under the provision of EPF and ESI Acts, if not already taken and deposit the employer's contribution along with employee subscription, as per rule and submit copy of challans at the time of claiming payment, as per clause no. 19, failing which an amount equivalent to employer's contribution and employees subscription shall be deducted from his each bill and deposited with the concerned authorities. The bidder shall be solely responsible for any consequences arising out of breach of any legislation.

47. JURISDICTION OF COURT TO DEAL WITH DISPUTES:

The contract shall be governed by the laws of India for the time being in force and be subject to the court of competent jurisdiction at concerned District HQ of Rajasthan in which work is being done. All disputes, differences, questions whatsoever arising between the purchaser and contractor upon or in relation to or in connection with the contracts shall be deemed to have arisen at concerned District HQ of Rajasthan and no court other than above shall have jurisdiction to entertain or try the same.

48. SETTLEMENT OF DISPUTES:

All dispute / difference / question what so ever which may arise between the JdVVNL and the agency, the same shall be decided by the Managing Director, JdVVNL, Jodhpur or by the settlement committee constituted by him and shall be final and binding on both the parties.

The JdVVNL has constituted settlement committee to settle the disputed cases. For the disputed amount up to Rs. 2.5 Lac the case may be referred to the CE level settlement committee and if the disputed amount is more than Rs. 2.5 Lac

the case shall be referred to the corporate level settlement committee. The non-refundable fees for referring the case to the settlement committee are as given below:

- i) Reference fee for CE level settlement committee - Rs.1000/-*
- ii) Reference fee for Corporate level settlement committee- Rs.3000/-* and Appeal against CE level committee
- iii) Fee for review of Decision of Corporate level settlement committee - Rs.5000/-* by BOD

*GST shall be extra charged as applicable.

The settlement committee fees as shown above or prevailing at that time shall be deposited in cash with the Senior Accounts Officer (CPC), JdVVNL, Jodhpur and shall furnish receipt thereof with a request for referring their disputes to the settlement committee for decision.

49. CONDUCT OF AGENCIES STAFF:

If any of the Agency's employees shall in the opinion of JdVVNL is guilty of any misconduct or incompetence or negligence, and then if so directed by JdVVNL, the Agency shall at once remove such employee and replace him by a qualified and competent substitute.

50. LIEN:

In case of any lien or claim pertaining to the work and responsibility of the agency for which JdVVNL might become liable, it shall have right to recover such claim amount from the agency

51. WORKS SAFETY:

The contractor shall take full responsibility for the adequacy and safety of all site operations and methods of construction.

52. FALL BACK ARRANGMENT:

Provision shall be made in the agreement that in the event of failure of the Agency to fulfil its obligations, duties and responsibilities as per the agreement terms, JdVVNL shall inter-alia have the right, at any time to resort to fall back arrangement. Under this plan, JdVVNL shall take charge of all facilities and systems whether in operation or under execution after giving suitable notice as provided in the agreement and can recover from the security deposit the losses suffered due to such failure. If the security deposit is insufficient, the Agency shall pay the difference to JdVVNL failing which JdVVNL shall have right to recover the sum through legal or other means.

The JdVVNL shall have the right in such circumstances to manage the system itself after taking charge of the facilities as above or through any other agency as it may deem fit and no claim of Agency for compensation in this respect shall be

entered.

53. HANDING OVER:

- 53.1 The contract agreement shall require the parties to cooperate in handing back the system in good working order to JDVVNL after termination of agreement. Upon termination of the agreement, the agency's authority to act in the area shall immediately cease.
- 53.2 The taking over certificate on the renovated system shall be issued by concerned Assistant Engineer and certificate issued should be counter signed by Executive Engineer as appointed by the Circle Superintending Engineer after due checking & finally by Nodal officer i.e. SE (O&M) of concern circle.
- 53.3 The contractor shall hand over the complete layout drawing of renovated distribution system in three (3) sets at the time of handing over the work to the Engineer for reference and records.

Note:-*The transformer's colour shall be in accordance with Nigam's specifications. The yellow band strip of thickness of 150 mm by enamel paint all around the body of DT will be provided to differentiate these distribution transformers from other.*

SECTION-III

PART-I A

SUPPLY & ERECTION CONDITIONS OF CONTRACT - GENERAL REQUIREMENT

1.0 WORK AS REQUIRED BY JdVVNL: -

- 1.1 **To carry out the work of release of agriculture connections on turnkey basis under TNTW-613 TO TNTW-624 of Jodhpur Discom.** “The scope of works includes execution of the project on turnkey basis. The contractor’s scope of work includes but not limited to: Survey, network design, supply, manufacturer’s quality assurance, testing, transportation, storage, erection (*including all civil /structural works*), site testing, commissioning of all items & materials, including all associated activities that though not exclusively specified here in but are required for the completion of the entire works under this package.
- 1.2 The contractor’s scope of work includes but not limited to: Survey, network design, supply, manufacturer’s quality assurance, testing, transportation, storage, erection (*including all civil /structural works*), site testing, commissioning of all items & materials, including all associated activities that though not exclusively specified here in but are required for the completion of the entire works under this package.
- 1.3 The Bidder shall execute the above Action Plan works on TOTAL TURN-KEY BASIS, which involves broadly the supply, transportation to works site, erection, assembly, testing and commissioning of the lines & equipment and returning the retrieved materials to concerned JdVVNL stores.
- 1.4 The details of equipment to be supplied, transported, erected, assembled, tested & commissioned are indicated in schedule of Works. The quantities indicated in the Schedule of Works are only approximate and may increase or decrease and prices quoted by the bidder are deemed to be valid in spite of such variations in the quantities at the time of award of contract.
- 1.5 Any other items not specifically mentioned but which are essentially required for satisfactory performance & completeness of work, shall be deemed to be included in the scope of specifications and works and the same shall be executed / carried out by the bidder at no extra cost to the JdVVNL.
- 1.6 Name of feeder, distribution box No. and Consumer identification numbers are to be marked with indelible paint on the pillar boxes and distribution boxes as required by the concerned AEN of the Sub- Division.

2.0 SCOPE OF WORK:

PART-I “To carry out the work of release of agriculture connections on turnkey basis under TNTW-613 TO TNTW-624 of Jodhpur Discom ”

Scope of supply and erection of plant and services under this bid covers all interventions required to ensure guaranteed outcomes as expressed above including supply of following major materials (whichever is applicable), installation, testing and commissioning of following:

- i) 11 KV T & C type disc insulator with hardwares.
- ii) 11 KV Isolators 400 A / HG fuse set
- iii) 11 Pin Insulators (5 KN).
- iv) 11 KV D.O. Fuse unit.
- v) 11 KV DP structures for DTs.
- vi) 11/0.4 KV distribution transformers
- vii) Stay sets complete 16/20 mm along with stay wire 7/3.15 mm. & stay clamps.
- viii) Earthing sets.
- ix) Galvanized Nuts & Bolts assorted size.
- x) 1.1 KV 4x16 sq.mm, 4x25 sq.mm, PVC sheathed armoured cables.
- xi) Lattice towers
- xii) Other miscellaneous materials and fabricated steel items required for line and substation construction shall be as per specification given in the Bid.
- xiii) The contractor is to supply and erect all requisite material for above works except mentioned herein which shall be provided by the Nigam whose erection charges will paid by the Nigam. No payment against supply of material shall be made to the contractor for the items provided by the Nigam.
- xiv) All equipment / materials shall be submitted for inspection by a duly authorized representative of the Engineer-in-charge. Inspection may be made at any stage of manufacture, dispatch or at site or at these places at the option of the Engineer-in-charge and the equipment dispatched / about to be dispatched, if found unsatisfactory as to workmanship or quality, the same is liable to be rejected. The successful bidder / Contractor shall grant free access to the places of manufacture to the authorized representative of the Engineer-in-charge at all times when the works related to the manufacture are in progress.
- xv) The Contractor is fully responsible for the Equipment / Material until the same is handed over to the JdVVNL in an operating condition after commissioning. The Contractor is responsible for the proper maintenance of equipment / material as well as protection of the same against theft, elements of nature, damages etc., while in his custody as well as after erection until the same is taken over by the JdVVNL under due acknowledgment in writing.
- xvi) The entire works to be executed under this contract will be in stages & requires obtaining Line Clear Permits from the Engineer-in-charges representative or his subordinate before taking up the works by the Contractor. As such the Contractor shall take all mandatory safety precautions for executing the works & shall obtain line clear permits with

the Operational Authorities of the area prior to commencement of works on daily basis.

- xvii) Similar parts of any equipment supplied shall be inter-changeable. Danger / Caution Boards shall be provided on Pillar & Distribution boxes.
- xviii) The contractor is to supply and erect all requisite material for above works except mentioned herein which shall be provided by the Nigam. No payment shall be made to the contractor for the items provided by the Nigam.

3.0 GENERAL

- 3.1 The following shall supplement the conditions already contained in the other parts of the Specification and documents and shall govern the Portion of the work of this Contract to be performed at Site.
- 3.2 The Contractor upon signing of the Contract shall, in addition to a Project Coordinator, nominate another responsible officer as his representative at Site suitably acted for the purpose of overall responsibility and co-ordination of the works to be performed at Site. Such person shall function from the Site Office of the Contractor during the pendency of Contract.

4.0 REGULATION OF LOCAL AUTHORITIES AND STATUTES

- 4.1 The Contractor shall comply with all the rules and regulations of local authorities during the performance of his field activities. He shall also comply with the Minimum Wages Act, 1948 and the Payment of Wages Act (both of the Government of India) and the rules made there under in respect of any employee or workman employed or engaged by him or his Sub-Contractor.
- 4.2 All registration and statutory inspection fees, if any, in respect of his work pursuant to this Contract shall be to the account of the Contractor. However, any registration, statutory inspection fees lawfully payable under any statutory laws and its amendments from time to time during erection in respect of the equipment ultimately to be owned by the Owner, shall be to the account of the Owner. Should any such inspection or registration need to be rearranged due to the fault of the Contractor or his Subcontractor, the additional fees to such inspection and/or registration shall be borne by the Contractor.

5.0 OWNER'S LIEN ON EQUIPMENT

The Owner shall have lien on all equipment's including those of the Contractor brought to the Site for the purpose of erection, testing and commissioning of the equipment to be erected under the Contract. The Owner shall continue to hold the lien on all such equipment throughout the period of Contract. No material brought to the Site shall be removed from the Site by the Contractor without the prior written approval of the Engineer.

6.0 ACCESS TO SITE AND WORKS ON SITE

- 6.1 Suitable access to the Site shall be afforded to the Contractor by the Owner in reasonable time.
- 6.2 In the execution of the works, no person other than the Contractor or his duly appointed representative and Employee, shall be allowed to do work on the Site, except by the special permission, in writing of the Nodal Officer/Engineer in Charge or his representative.

7.0 CONTRACTOR'S SITE OFFICE ESTABLISHMENT

The Contractor shall establish a Site Office at the Sites and keep posted an authorized representative for the purpose of the Contract. Any written order or instruction of the Nodal Officer/Engineer in Charge or his duly authorized representative shall be communicated to the said authorized resident representative of the Contractor and the same shall be deemed to have been communicated to the Contractor at his legal address.

8.0 CONTRACTOR'S REPRESENTATIVE AND WORKMAN:

If supervision of erection or complete erection be included then the contractor shall employ at least one competent representative, whose name or names shall have previously been communicated in writing to the Engineer by the contractor to superintend the erection of the plant and carrying out of the works. The said representative or if more than one shall be employed then one of such representative shall be present on the site during working hours and any written orders or instructions which the Engineer or his duly authorized representative (whose name shall have been previously communicated in writing to the contractor) may give to the said representative of the contractor shall be deemed to have been given to the contractor, and the contractor shall remove the person so objected to, upon receipt from the Engineer a notice in writing requiring him to do so, and shall provide in his place a competent representative at the contractor's expenses.

9.0 DISCIPLINE OF EMPLOYEE

The Contractor shall adhere to the disciplinary procedure set by the Nodal Officer/Engineer in Charge in respect of his employees and Employee at Site. The the Nodal Officer/Engineer in Charge in shall be at liberty to object to the presence of any representative or employee of the Contractor at the Site, if in the opinion of the the Nodal Officer/Engineer in Charge in such employee has mis-conducted himself or is incompetent or negligent or otherwise undesirable and then the Contractor shall remove such a person objected to and provide in his place a competent replacement.

10.0 CONTRACTOR'S FIELD OPERATION

- 10.1 The Contractor shall keep the Nodal Officer/Engineer in Charge in informed in advance regarding his field activity plans and schedules for carrying out each part

of the works. Any review of such plan or schedule or method of work by the Nodal Officer/Engineer in Charge shall not relieve the Contractor of any of responsibilities towards the field activities. Such reviews shall also not be considered as an assumption of any risk or liability by the Nodal Officer/Engineer in Charge or the Owner or any of his representatives and no claim of the Contractor will be entertained because of the failure or inefficiency of any such plan or schedule or method of work reviewed. The Contractor shall be solely responsible for the safety, adequacy and efficiency of plant and equipment and his erection methods.

- 10.2 The Contractor shall have the complete responsibility for the conditions of the Work-Site including the safety of all persons employed by him or his Sub-Contractor and all the properties under his custody during the performance of the work. This requirement shall apply continuously till the completion of the Contract and shall not be limited to normal working hours. The construction review by the Nodal Officer/Engineer in Charge is not intended to include review of Contractor's safety measures in, or of near the Work-Site, and their adequacy or otherwise.

11.0 MAN-POWER REPORT

- 11.1 The Contractor shall submit to the Engineer, on the first day of every month, a man-hour schedule for the month, detailing the man- hours scheduled for the month, skill-wise and area-wise.
- 11.2 The Contractor shall also submit to the Engineer, on the first day of every month, a man-power report of the previous month detailing the number of persons scheduled to have been employed and actually employed, skill- wise and the areas of employment of such labour.

12.0 PROTECTION OF WORK

The Contractor shall have total responsibility for protecting his works till it is finally taken over by the Engineer. No claim will be entertained by the Owner or the Nodal Officer/Engineer in Charge for any damage or loss to the Contractor's works and the Contractor shall be responsible for complete restoration of the damaged works to original conditions to comply with the specification and drawings. Should any such damage to the Contractor's Works occur because of other party not being under his supervision or control, the Contractor shall make his claim directly with t h e party concerned. If disagreement or conflict or dispute develop between the Contractor and the other party or parties concerned regarding the responsibility for damage to the Contractor's Works the same shall be resolved as per the provisions of the GCC Clause entitled "Cooperation with other Contractors". The Contractor shall not cause any delay in the repair of such damaged Works because of any delay in the resolution of such disputes. The

Contractor shall proceed to repair the Work immediately and no cause thereof will be assigned pending resolution of such disputes.

13.0 EMPLOYMENT OF LABOUR

- 13.1 The Contractor will be expected to employ on the work only his regular skilled employees with experience of his particular work. No female labour shall be employed after darkness. No person below the age of eighteen years and above the age of 60 years shall be employed.
- 13.2 All travelling expenses including provisions of all necessary transport to and from Site, lodging allowances and other payments to the Contractor's employees shall be the sole responsibility of the Contractor.
- 13.3 The hours of work on the Site shall be decided by the Owner and the Contractor shall adhere to it. Working hours will normally be eight (8) hours per day - Monday to Saturday.
- 13.4 The Contractor's employees shall wear identification badges while on work at Site.
- 13.5 In case the Owner becomes liable to pay any wages or dues to the labour or any Government agency under any of the provisions of the Minimum Wages Act, Employee Compensation Act, Contract Labour Regulation Abolition Act or any other law due to act of omission of the Contractor, the Owner may make such payments and shall recover the same from the Contractor's Bills.
- 13.6 EMPLOYEES PROVIDENT FUNDS: The contractor shall have to submit a certificate every month that he is an establishment covered under the Employees Provident Fund and Miscellaneous provisions Act, 1952 and is having a separate code number with the provident fund commissioner and also that the provident fund contribution in respect of all the employees employed by him along with employer's share of contribution etc. is being deposited with the provident fund authorities and shall also submit certified photo copies of the challans of deposits. In absence of above, the contractor shall be liable to deposit employees, as well as, Employer's contribution and other charges in respect of all the employees engaged by him for the said work with Nigam along with details of the employees, their wages and the amount of contribution as per Nigam CPF Rules every month. In case of failure, Nigam shall be entitled to deduct 16% of the amount from his bills.

14.0 FACILITIES TO BE PROVIDED BY THE CONTRACTOR

14.1 Tools, tackles and scaffoldings

The Contractor shall provide all the construction equipment, tools, tackles and scaffoldings required for pre-assembly, erection, testing and commissioning of the equipment covered under the Contract. He shall submit a list of all such materials to the Engineer in Charge (Nodal Officer) before the

commencement of pre-assembly at Site. These tools and tackles shall not be removed from the Site without the written permission of the Engineer.

14.2 First-Aid

The Contractor shall provide necessary first-aid facilities for all his employees, representatives and Employee working at the Site. Enough number of Contractor's personnel shall be trained in administering first- aid.

14.3 Cleanliness

The Contractor shall be responsible for keeping the entire area allotted to him clean and free from rubbish, debris etc. during the period of Contract. The Contractor shall employ enough number of special personnel to thoroughly clean his work-area at least once in a day. All such rubbish and scrap material shall be stacked or disposed in a place to be identified by the Engineer. Materials and stores shall be so arranged to permit easy cleaning of the area. In areas where equipment might drip oil and cause damage to the floor surface, a suitable protective cover of a flame resistant, oil proof sheet shall be provided to protect the floor from such damage.

15.0 LINES AND GRADES

All the Works shall be performed to the lines, grades and elevations indicated on the drawings. The Contractor shall be responsible to locate and lay- out the Works. Basic horizontal and vertical control points will be established and got verified by the Nodal Officer/Engineer in Charge at Site at suitable points. These points shall be used as datum for the works under the Contractor. The Contractor shall inform the Nodal Officer/Engineer in Charge well in advance of the times and places at which he wishes to do work in the area allotted to him so that suitable datum points may be established and checked by the Engineer in Charge to enable the Contractor to proceed with his works. Any work done without being properly located may be removed and/or dismantled by the Engineer in Charge at Contractor's expense.

16.0 FIRE PROTECTION

16.1 The work procedures that are to be used during the erection shall be those which minimize fire hazards to the extent practicable. Combustible materials, combustible waste and rubbish shall be collected and removed from the Site at least once each day. Fuels, oils and volatile or flammable materials shall be stored away from the construction equipment and materials storage areas in safe containers. Untreated canvas, paper, plastic or other flammable flexible materials shall not at all be used at Site for any other purpose unless otherwise specified. If any such materials are received with the equipment at the Site, the same shall be removed and replaced with acceptable material before moving into the construction or storage area.

- 16.2 Similarly corrugated paper fabricated cartons etc. will not be permitted in the construction area either for storage or for handling of materials. All such materials used shall be of water proof and flame resistant type. All the other materials such as working drawings, plans etc. which are combustible but are essential for the works to be executed shall be protected against combustion resulting from welding sparks, cutting flames and other similar fire sources.
- 16.3 All the Contractor's supervisory personnel and sufficient number of workers shall be trained for fire-fighting and shall be assigned specific fire protection duties. Enough of such trained personnel must be available at the Site during the entire period of the Contract.
- 16.4 The Contractor shall provide enough fire protection equipment of the types and number for the warehouses, office, temporary structures, labour colony area etc. Access to such fire protection equipment, shall be easy and kept open at all time.

17.0 SECURITY

The Contractor shall have total responsibility for all equipment and materials issued by the Nigam in his custody stores, loose, semi-assembled and/or erected by him at Site. The Contractor shall make suitable security arrangements including employment of security personnel to ensure the protection of all materials, equipment and works from theft, fire, pilferage and any other damages and loss. All materials shall enter and leave the project Site only with the written permission of the Nodal Officer/Engineer in Charge in the prescribed manner.

18.0 CONTRACTOR'S AREA LIMITS

The Nodal Officer/Engineer in Charge will mark-out the boundary limits of access roads, parking spaces, storage and construction areas for the Contractor and the Contractor shall not trespass the areas not so marked out for him. The Contractor shall be responsible to ensure that none of his personnel move out of the areas marked out for his operations. In case of such a need for the Contractor's personnel to work out of the areas marked out for him, the same shall be done only with the written permission of the Engineer.

19.0 PROTECTION OF MONUMENTS AND REFERENCE POINTS

The Contractor shall ensure that any finds such as relic, antiques, coins, fossils, etc. which he may come across during the course of performance of his Works either during excavation or elsewhere, are properly protected and handed over to the Engineer. Similarly the Contractor shall ensure that the bench marks, reference points, etc., which are marked either with the help of Nodal Officer/Engineer in Charge shall not be disturbed in any way during the performance of his Works. If, any work is to be performed which disturb such reference, the same shall be done only after these are transferred to other suitable locations under the direction of the Engineer. The Contractor shall

provide all necessary materials and assistance for such relocation of reference points etc.

20.0 MATERIALS HANDLING AND STORAGE

- 20.1 All the equipment/material issued by the Nigam under the Contract and arriving at Site shall be promptly received, unloaded, transported and stored in the storage spaces by the Contractor.
- 20.2 The Contractor shall maintain an accurate and exhaustive record detailing out the list of all material received by him for the purpose of erection and keep such record.
- 20.3 All material shall be handled very carefully to prevent any damage or loss. No bare wire ropes, slings, etc. shall be used for unloading and/or handling of the material without the specific written permission of the Engineer. The material stored shall be properly protected to prevent damage either to the equipment or to the floor where they are stored. The material from the store shall be moved to the actual location at the appropriate time so as to avoid damage of such material at Site.
- 20.4 All electrical panels, control gears, motors and such other devices shall be properly dried by heating before they are erected and energized. Motor bearings, slip rings, commutators and other exposed parts shall be protected against moisture ingress and corrosion during storage and periodically inspected.

21.0 CONSTRUCTION MANAGEMENT

- 21.1 The field activities of the various contractors executing different contracts for the project will be coordinated by the Nodal Officer/Engineer in Charge and his decision shall be final in resolving any disputes or conflicts between the Contractor and other Contractors and tradesmen of the Owner regarding scheduling and coordination of work. Such decision by the Nodal Officer/Engineer in Charge shall not be a cause for extra compensation or extension of time for the Contractor.
- 21.2 The Nodal Officer/Engineer in Charge shall hold weekly meetings of all the Contractors working at Site, at a time and place to be acted by the Engineer. The Contractor shall attend such meetings and take notes of discussions during the meeting and the decisions of the Nodal Officer/Engineer in Charge shall be strictly adhered to in performing his Works. In addition to the above weekly meeting, the Nodal Officer/Engineer in Charge may call for other meeting either with individual contractors or with selected number of contractors and in such a case the Contractor if called, will also attend such meetings.
- 21.3 Time is the essence of the Contract and the Contractor shall be responsible for performance of his works in accordance with the specified construction schedule. If at any time, the Contract is falling behind the schedule, he shall take necessary

action to make good for such delays by increasing his work force or by working overtime or otherwise accelerate the progress of the work to comply with the schedule and shall communicate such actions in writing to the Engineer, satisfying that his action will compensate for the delay. The Contractor shall not be allowed any extra compensation for such action.

- 21.4 The Nodal Officer/Engineer in Charge shall however not be responsible for provision of additional labour and/or materials or supply or any other services to the Contractor except for the coordination work between various Contractors as set out earlier.

22.0 FIELD OFFICE RECORDS

The Contractor shall maintain at his Site Office up-to-date copies of all drawings, Specification and other Contract Documents and any other supplementary data complete with all the latest revisions thereto. The Contractor shall also maintain in addition the continuous record of all changes to the above Contract Documents, drawings, Specification, supplementary data, etc. effected at the field and on completion of his total assignment under the Contract shall incorporate all such changes on the drawings and other Engineering data to indicate as erection conditions of the equipment furnished and erected under the Contract. Such drawings and engineering data shall be submitted to the Nodal Officer/Engineer in Charge in required number of copies.

23.0 PROTECTION OF PROPERTY AND CONTRACTOR'S LIABILITY

- 23.1 The Contractor shall be responsible for any damage resulting from his operations. He shall also be responsible for protection of all persons including members of public and employees of the Owner and the employees of other Contractors and Sub-contractors and all public and private property including structures, building, other plants and equipment and utilities either above or below the ground.
- 23.2 The Contractor will ensure provision of necessary safety equipment such as barriers, sign-boards, warning lights and alarms, etc. to provide adequate protection to persons and property. The Contractor shall be responsible to give reasonable notice to the Nodal Officer/Engineer in Charge and the owners of public or private property and utilities when such property and utilities are likely to get damaged or injured during the performance of his works and shall make all necessary arrangements with such owners, related to removal and/or replacement or protection of such property and utilities.

24.0 INSURANCE

In addition to the conditions covered under the Clause entitled 'Insurance' in General Terms and Conditions of Contract, the following provisions will also apply to the portion of works to be done beyond the Contractor's own or his Sub-contractor's manufacturing Works.

24.1 Employee's Compensation Insurance

This insurance shall protect the Contractor against all claims applicable under the Employee's Compensation Act, 1923 (Government of India). This policy shall also cover the Contractor against claims for injury, disability, disease or death of his or his Sub-Contractor's employees, which for any reason are not covered under the Employee's Compensation Act, 1923. The liabilities shall not be less than:

Employee's Compensation provisions	:	As per statutory provisions
Employee's liability provisions	:	As per statutory provisions

24.2 Comprehensive Automobile Insurance

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

24.3 Comprehensive General Liability Insurance

- 24.3.1 The insurance shall protect the Contractor against all claims arising from injuries, disabilities, disease or death of members of public or damage to property of others, due to any act or omission on the part of the Contractor, his agents, his employees, his representatives and Sub- contractors or from riots, strikes and civil commotion. This insurance shall also cover all the liabilities of the Contractor arising out of the Clause entitled Defence of Suits .
- 24.3.2 The hazards to be covered pertain to all the Works and areas where the Contractor, his Sub-contractors, his agents and his employees have to perform work pursuant to the Contract.
- 24.3.3 The above are only illustrative list of insurance covers normally required and it will be the responsibility of the Contractor to maintain all necessary insurance coverage to the extent both in time and amount to take care of all his liabilities either direct or indirect, in pursuance of the Contract.

25.0 UNFAVOURABLE WORKING CONDITIONS

The Contractor shall confine all his field operations to those works which can be performed without subjecting the equipment and materials to adverse effects during inclement weather conditions, like monsoon, storms, etc. and during other unfavorable construction conditions. No field activities shall be performed by the Contractor under conditions which might adversely affect the quality and efficiency thereof, unless special precautions or measures are taken by the Contractor in a proper and satisfactory manner in the performance of such Works and with the concurrence of the Engineer. Such unfavorable construction conditions will in no way relieve the Contractor of his responsibility to perform the

Works as per the schedule.

26.0 WORK & SAFETY REGULATIONS

- 26.1 The Contractor shall ensure proper safety of all the Employee, materials plant and equipments belonging to him or to owner or to others, working at the Site. The Contractor shall also be responsible for provision of all safety notices and safety equipment required both by the relevant legislations and the Nodal Officer/Engineer in Charge as he may deem necessary.
- 26.2 The Contractor will notify well in advance to the Engineer in Charge (Nodal Officer) of his intention to bring to the Site any Container filled with liquid or gaseous fuel or explosive or petroleum substance or such chemicals which may involve hazards. The Nodal Officer/Engineer in Charge shall have the right to prescribe the conditions, under which such container is to be stored, handled and used during the performance of the works and the Contractor shall strictly adhere to and comply with such instructions. The Nodal Officer/Engineer in Charge shall have the right at his sole discretion to inspect any such container or such construction plant/equipment for which material in the container is required to be used and if in his opinion, its use is not safe, he may forbid its use. No claim due to such prohibition shall be entertained by the Owner and the Owner shall not entertain any claim of the Contractor towards additional safety provisions/conditions to be provided for/ constructed as per the Engineer's instructions. Further, any such decision of the Nodal Officer/Engineer in Charge shall not, in any way, absolve the Contractor of his responsibilities and in case, use of such a container or entry thereof in to the Site area is forbidden by the Engineer, the Contractor shall use alternative methods with the approval of the Nodal Officer/Engineer in Charge without any cost implication to owner or extension of work schedule.
- 26.3 Where it is necessary to provide and/or store petroleum products or petroleum mixtures and explosives, the Contractor shall be responsible for carrying-out such provision and/or storage in accordance with the rules and regulations laid down in Petroleum Act- 1934, Explosives Act-1948, and Petroleum and Carbide of Calcium Manual published by the Chief Inspector of Explosives of India. All such storage shall have prior approval of the Engineer. In case, any approvals are necessary from the Chief Inspector (Explosives) or any statutory authorities, the Contractor shall be responsible for obtaining the same.
- 26.4 All equipment used in construction and erection by the Contractor shall meet Indian/International Standards and where such standards do not exist, the Contractor shall ensure these to be absolutely safe. All equipments shall be strictly operated and maintained by the Contractor in accordance with manufacturer's operation Manual and safety instructions and as per Guidelines/Rules of JDVVNL in this regard.
- 26.5 Periodical Examinations and all tests for all lifting/hoisting equipment & tackles shall be carried-out in accordance with the relevant provisions of Factories Act-1948, Indian Electricity Act-2003 and associated Laws/Rules in force from time to time. A register of such examinations and tests shall be properly maintained by the Contractor and will be promptly produced as and when desired by Nodal

- Officer/Engineer in Charge or by the person authorized by him.
- 26.6 The Contractor shall be fully responsible for the safe storage of his and his sub-contractor's radio-active sources in accordance with BARC/DAE Rules and other applicable provisions. All precautionary measures stipulated by BARC/DAE in connection with use, storage and handling of such material shall be taken care by Contractor.
- 26.7 The Contractor shall provide suitable safety equipment of prescribed standard to all employees and Employee according to the need, as may be directed by Nodal Officer/Engineer in Charge who will also have right to examine these safety equipment's to determine their suitability, reliability, acceptability and adaptability.
- 26.8 Where explosives are to be used, the same shall be used under the direct control and supervision of an expert, experienced, qualified and competent person strictly in accordance with the Code of Practices/Rules framed under Indian Explosives Act pertaining to handling, storage and use or explosives.
- 26.9 The Contractor shall provide safe working conditions to all Employee and employees at the Site including safe means of access, railings, stairs, ladders, scaffoldings etc. The scaffoldings shall be erected under the control and supervision of an experienced and competent person. For erection, good and standard quality of material only shall be used by the Contractor.
- 26.10 The Contractor shall not interfere or disturb electricity fuses, wiring and other electrical equipment belonging to the Owner or other contractors under any circumstances, whatsoever, unless expressly permitted in writing by Nodal Officer/Engineer in Charge or his authorized representative to handle such electrical equipment.
- 26.11 Before the Contractor connects any electrical appliances to any plug or socket belonging to the other Contractor or Owner, he shall:
- a) Satisfy the Nodal Officer/Engineer in Charge that the appliance is in good working condition.
 - b) Inform the Nodal Officer/Engineer in Charge of the maximum current rating, voltage and phases of the appliances.
 - c) Obtain permission of the Engineer in Charge (Nodal Officer) detailing the sockets to which the appliances may be connected.
- 26.12 Nodal Officer/Engineer in Charge will not grant permission to connect electric load until he is satisfied that;
- a) The appliance is in good condition and is fitted with suitable plug.
 - b) The appliance is fitted with a suitable cable having two earth conductors one of which shall be an earthed metal sheath surrounding the cores.
- 26.13 No electric cable in use by the Contractor/Owner will be disturbed without prior permission. No weight of any description will be imposed on any cable and no ladder or similar equipment will rest against or attached to it.

- 26.14 No repair work shall be carried out on any live equipment. The equipment must be declared safe by the Nodal Officer/Engineer in Charge and a permit to work shall be issued by the Engineer in Charge (Nodal Officer) or his authorized representative before any repair work is carried out by the Contractor. While working on electric lines/equipments whether live or dead, suitable type and sufficient quality of tools will have to be provided by the contractor to electricians/Employee/officers.
- 26.15 The Contractors shall employ necessary number of qualified, full time Electricians/Electrical Supervisors to maintain his temporary electrical installations / erections site.
- 26.16 The Contractor employing more than 250 Employee whether temporary, casual, probationer, regular or permanent or on contract, shall employ at least one full time officer exclusively as Safety Officer to supervise safety aspects of the equipments and Employee, who will coordinate with the Project Safety Officer. In case of work being carried out through Sub-contractors, the Sub- contractor's Employee/employees will also be considered as the Contractor's Employees/Employee for the above purpose. The name and address of such Safety Officer of Contractor will be promptly informed in writing to Nodal Officer/Engineer in Charge with a copy to Safety Officer- in-charge before he starts work or immediately after any change of the incumbent is made during currency of the Contract.
- 26.17 In case of any accident during the construction/erection or other associated activities undertaken by the Contractor thereby causing any minor or major or fatal injury to his employees due to any reason whatsoever, it shall be the responsibility of the Contractor to promptly inform the same to the Nodal Officer/Engineer in Charge in prescribed form and also to all the authorities envisaged under the applicable laws.
- 26.18 The Nodal Officer/Engineer in Charge shall have the right at his sole discretion to stop the work, if in his opinion the work is being carried out in such a way that it may cause accidents and endanger the safety of the persons and/or property, and/or equipments. In such cases, the Contractor shall be informed in writing about the nature of hazards and possible injury/accident and he shall comply to remove shortcomings promptly. The Contractor after stopping the specific work can, if felt necessary appeal against the order of stoppage of work to the Nodal Officer/Engineer in Charge within 3 days of such stoppage of work and decision of the Nodal Officer/Engineer in Charge in this respect shall be conclusive and binding on the Contractor.
- 26.19 The Contractor shall not be entitled for any damages / compensation for stoppage of work due to safety reasons as provided in para 27.18 above and the period of such stoppage of work will not be taken as an extension of time for completion of work and will not be the ground for waiver of levy of liquidated damages.
- 26.20 It is mandatory for the Contractor to observe during the execution of the works requirements of safety rules which would generally include but not limited to following :

26.21 The Earth Resistance is to be maintained as required under Electricity act/ Rules for transformer and line earthing.

26.22 For line (HT single phase) earthing , the earth wire provided in the pole is to be connected at top to all steel part and at bottom to be connected to earthing provided with Welding and Nut Bolting

27.0 SAFETY RULES

Each employee shall be provided with initial instruction regarding safety by the Contractor, so as to enable him to conduct his work in a safe manner.

- a) No employee shall be given a new assignment of work unfamiliar to him without proper introduction as to the hazards incident thereto, both to himself and his fellow employees.
- b) Under no circumstances shall an employee hurry or take unnecessary chance when working under hazardous conditions.
- c) Employees must not leave naked fires unattended. Smoking shall not be permitted around fire prone areas and adequate firefighting equipment shall be provided at crucial locations.
- d) Employees under the influence of any intoxicating beverage, even to the slightest degree shall not be permitted to remain at work.
- e) There shall be a suitable arrangement at every work site for rendering prompt and sufficient first aid to the injured.
- f) The staircases and passageways shall be adequately lighted.
- g) The employees when working around moving machinery must not be permitted to wear loose garments. Safety shoes are recommended when working in shops or places where materials or tools are likely to fall. Only experienced workers shall be permitted to go behind guard rails or to clean around energized or moving equipment.
- h) The employees must use the standard protection equipment intended for each job. Each piece of equipment shall be inspected before and after it is used.
- i) Requirements of ventilation in underwater working to licensed and experienced divers, use of gum boots for working in slushy or in undated conditions are essential requirements to be fulfilled.
- j) In cases or rock excavation blasting shall invariably be done through licensed blasters and other precautions during blasting and storage / transport of charge material shall be observed strictly.

27.1 The Contractor shall follow and comply with all Safety Rules, relevant provisions of applicable laws pertaining to the safety of Employee, employees plant and equipment as may be prescribed from time to time without any demur, protest or contest or reservation. In case of any in conformity between statutory requirement and Safety rules referred above, the later shall be binding on the Contractor unless the statutory provisions are more stringent.

27.2 If the Contractor fails in providing safe working environment as per Safety Rules or continues the work even being instructed to stop work by the Engineer in Charge (Nodal Officer) as provided in para 26.18, the Contractor shall promptly pay to JdVVNL, on demand by the Owner compensation at the

rate of Rs. 5,000/- per day or part thereof till the instructions are complied with and so certified by the Engineer. However, in case of accident taking place-causing injury to any individual, the provisions contained in para 27.1 shall also apply in addition to compensation mentioned in this para.

- 27.3 If the Contractor does not take all safely precautions and/or fails to comply with the Safety Rules as prescribed by owner or under the applicable law for the safety of the equipment and plant and for the safety to personnel and the Contractor does not prevent hazardous conditions which cause injury to his own employees or employees of other contractors, or JdVVNL employees or any other person who are at Site or adjacent thereto, the Contractor shall be responsible for payment of compensation to owner as per the following schedule :-

a)	Fatal injury or accident causing death	As per Nigam norms	:	These are applicable for death / injury to any person whosoever
b)	Major injuries or accident causing 25% or more permanent disablement to Employee or employees	As per Nigam norms	:	

Permanent disablement shall have same meaning as indicated in Employee's Compensation Act. The compensation mentioned above shall be in addition to the compensation payable to the Employee/employees under the relevant provisions of the Employee's Compensation Act and rules framed there under or any other applicable laws as applicable from time to time. In case the Owner is made to pay such Compensation, then the Contractor is liable to reimburse the Owner such amount in addition to the compensation indicated above.

- 27.4 If the Contractor observes all the Safety Rules and Codes, Statutory Laws and Rules during the currency of Contract awarded by the Owner and no accident occurs then Nigam may consider the performance of the Contractor and award suitable "ACCIDENT FREE SAFETY MERITORIOUS AWARD" as per scheme as may be announced separately from time to time.

28.0 SETTING OUT OF WORKS:

The contractor shall be responsible for the true and proper setting out of the works in relation to the original points, lines and levels of reference given by the Engineer in writing and for the correctness, subject as mentioned above of the position, levels, dimensions, and alignment of all parts of the works and for the provision of all necessary instruments, appliances and labour in connection therewith. If, at any time during the progress of the works, any error shall appear or arise in the position levels, dimensions, or alignment of any part of the works, the contractor on being required by the Engineer, shall at his own cost, rectify such error to the satisfaction of the Engineer unless such error is

based on incorrect data supplied in writing by the Engineer, in which case the expense of rectifying the same shall be borne by the owner. The checking or setting out of or any line or level by the Engineer shall not in any way relieve the contractor of his responsibility for the correctness thereof and the contractor shall carefully protect and preserve all bench-marks, sight rails, pegs and such other thing used in the setting out of the works.

29.0 MINOR ACCESSORIES FOR COMPLETION OF WORKS:

Contractor shall supply all minor accessories required for the completion of erection which have not indicated in specification or in purchase order.

SECTION-III

PART-I B

SUPPLY & ERECTION CONDITIONS OF CONTRACT - TECHNICAL REQUIREMENT

1.0 SCOPE OF WORK:-

1.1 This specification covers execution of various activities under JdVVNL i.e., Supply, erection, testing & commissioning of material for **release of agriculture connections on turnkey basis under TNTW-613 TO TNTW-624 of Jodhpur Discom.**

2.0 GENERAL INFORMATION:-

2.1 WAY LEAVE, AND OTHER OBSTRUCTIONS:

2.1.1. The contractor will arrange for way leave proposals for carrying out the work & the proposals are to be submitted by the contractor well in time. It will also be necessary on the part of contractor to instruct his workers and staff to work in a manner so that no damage of the existing underground systems of other public utility systems shall take place.

2.1.2. However in case, if any damage happens to be there, the responsibility of repair of such damages shall be in the scope of contractor.

2.1.3. The contractor should immediately notify any obstructions or hindrance from households or the local authorities in the execution of the work, to the concerned Engineer / In-charge but should not deal directly in the matter. The Engineer / in-charge will arrange to remove the obstacles as soon as possible.

2.1.4. For the clearance, permissions, removal of obstructions in way leave, etc. the contractor shall not remain contented by simply informing the Nigam but shall invariably assist and arrange for personal follow up to overcome the difficulties in the interest of progress of the work.

2.1.5. The project may involve some obstacles from the public. In such a situation the position should be brought out in knowledge of the Nodal officer / Engineer In-charge of the project, for making a spot solution of the situation.

2.2 ACCESS TO LOCATION:

2.2.1. It will be the contractor's sole responsibility to take the material up to the location from the concern sub-divisional store and shall have to arrange transportation at his cost.

2.2.2. The contractor will be deemed to be very well familiar with the work to be executed before giving the offer. Notwithstanding, the difficulties of terrain, location approaches, way leave and other obstructions the price quoted for all the items with erection & commissioning & commissioning charges shall not

undergo any change at any stage of work including the time limit extension.

2.3 TESTING AND COMMISSIONING:

After completion of the work, as mentioned in clause no 1.0 scope, the contractor will ensure that all works connected with the line have been completed correctly as per Indian Electricity Rules and procedure. Any extra cost involved due to incompleteness of work or bad workmanship found but subsequently, shall be set right forthwith by the Contractor at his cost. The contractor shall arrange to handover the complete line.

2.4 SHUT DOWN OF EXISTING LINES:

The contractor or his authorized representative shall intimate in advance along-with complete programme of erection & commissioning where ever shunt down of existing line is required, to the Nodal officer / Engineer In-charge of the site for arranging shut downs. The contractor shall have to plan the work in such a way that in minimum duration of shut down maximum work is carried out to avoid repeated and / or longer duration shut downs.

2.5 REFERENCE STANDARDS:

The material to be utilized in execution of tendered / ordered works shall conform to the Indian Standards (IS) which shall mean latest revisions, Amendments / changes and published unless otherwise specified herein

3.0 GENERAL TECHNICAL CONDITIONS:

The following provisions shall supplement all the detailed technical Specification and requirements. The Bidder's proposal shall be based on the use of equipment and materials complying fully with the requirements, specified herein.

3.1 The Bidder shall furnish clause – by – clause commentary (with detailed technical data as required) on the Technical Specification demonstrating the goods substantial responsiveness to the Specification or deviation and exceptions to the provisions of the Technical Specification unless and until advised contrary to this in the bidding document.

4.0 Equipment Performance Guarantee:

4.1 The performance requirements of the items are detailed separately in this Specification. These guarantees shall supplement the general performance guarantee provisions covered under General Conditions of Contract in clause entitled "Guarantee".

4.2 Liquidated damages for not meeting specified performance shall be assessed and recovered from the Contractor. Such liquidated damages shall be without any limitation whatsoever and shall be in addition to damages, if any payable under any other clause of Conditions of Contract.

5.0 Engineering Data

- 5.1** The furnishing of engineering data by the Contractor shall be in accordance with the appropriate Schedule appended to this document. The review of these data by the Owner will cover only general conformance of the data to the Specification and drawings. This review by the Owner may not indicate a thorough review of all dimensions, quantities and details of the equipment, materials, any devices or items indicated or the accuracy of the information submitted. This review and / or approval by the Owner shall not be considered by the Contractor, as limiting any of his responsibilities and liabilities for mistakes and deviations from the requirements, specified under these Specification and documents.
- 5.2** All engineering data submitted by the Contractor after final process including review and approval by the Owner shall form part of the Contract Document and the entire works performed under this Specification shall be performed in strict conformity, unless otherwise expressly requested by the owner in writing.
- 6.0 Drawings**
- 6.1** All drawings submitted by the Contractor including those submitted at the time of bid shall be in sufficient detail to indicate the type, size, arrangement, dimensions, material description, Bill of Materials, weight of each component, break-up for packing and shipment, required fixing arrangement, the required dimensions for installation and any other information specifically requested in the Specification.
- 6.2** Each drawing submitted by the Contractor shall be clearly marked with the name of the Purchaser, the unit designation, the Specification title, the Specification number and the name of the Project. All titles, noting, markings and in writings on the drawing shall be in English. All the dimensions should be to the scale and in metric units.
- 6.3** The drawings submitted by the Contractor shall be reviewed by the Owner as far as practicable within one (1) week and shall be modified by the Contractor if any modifications and / or corrections are required by the Owner in compliance with the Specification. The Contractor shall incorporate such modifications and or corrections and submit the final drawings for approval. Any delays arising out of failure by the Contractor to rectify the drawings in good time shall not alter the completion date.
- 6.4** The drawings submitted for approval to the Owner shall be in quadruplicate. One print of such drawings shall be returned to the Contractor by the Owner marked "approved / approved with corrections". The Contractor shall thereupon furnish the Owner additional print as stipulated in Technical Specification along with one reproducible in original of the drawings after incorporating all corrections.
- 6.5** Further work by the Contractor shall be strictly in accordance with these drawings and no deviation shall be permitted without the written approval of the Purchaser, if so required.

- 6.6** All manufacturing and fabrication work in connection with the equipment / material prior to the approval of the drawings shall be at the Contractor's risk. The Contractor may make any changes in the design which are necessary to make the equipment conform to the provisions and intent of the Contract and such changes will again be subject to approval by the Owner. Approval of Contractor's drawing or work by the Owner shall not relieve the Contractor of any of his responsibilities and liabilities under the Contract.
- 6.7** All rights of the design / drawing shall be strictly reserved with the Owner only and any designs / drawings / data sheets submitted by the contractor from time to time shall become the property of the Owner. Under no circumstances, the Contractor shall be allowed to use / offer above designs / drawings / data sheets to any other authority without prior written permission of the Owner. Any deviation to above is not acceptable and may be a cause of rejection of the bid.

7.0 Quality Assurance

To ensure that the equipment under the scope of this Contract whether manufactured within the Contractor's Works or at his Sub-Contractor's premises is in accordance with the Specification, the Contractor shall adopt suitable Quality Assurance Programme to control such activities at all points necessary.

A Quality Assurance Programme of the Contractor shall generally cover but not limited to the following.

- a) His organization structure for the management and implementation of the proposed Quality Assurance Programme.
- b) Documentation control system.
- c) Qualification data for key personnel;
- d) The procedure for purchases of materials. Parts/ components and selection of sub-Contractor's services including vendor analysis, source inspection, incoming raw material inspection, verification of material purchases etc.
- e) System for shop manufacturing including process controls.
- f) Control of non-conforming items and system for corrective action.
- g) Control of calibration and testing of measuring and testing equipments.
- h) Inspection and test procedure for manufacture.
- i) System for indication and appraisal of inspection status.
- j) System for quality audits.
- k) System for authorizing release of manufactured product to the Purchaser.
- l) System for maintenance of records.
- m) System for handling storage and delivery and

A Quality Plan detailing out the specific quality control procedure adopted for controlling the quality characteristics of the product.

The Quality Plan shall be mutually discussed and approved by the Owner after

incorporating necessary corrections by the Contractor as may be required.

8.0 Quality Assurance Documents

8.1 The Contractor shall be required to submit all the Quality Assurance Documents as stipulated in the Quality Plan at the time of Owner's inspection of equipment / material. The owner or his duly authorized representatives reserves the right to carry out Quality Audit and Quality surveillance of the systems and procedures of the Contractor's / his vendor's Quality Management and Control Activities.

9.0 Owner's Supervision

9.1 To eliminate delays and avoid disputes and litigation it is agreed between the parties to the Contract that all matters and questions shall be resolved in accordance with the provisions of this document.

9.2 The manufacturing of the product shall be carried out in accordance with the approved design & bill of Material furnished by the Contractor. However this approval does not relieve the responsibility of contractor for safe & efficient working of the equipments.

9.3 Interpretation of all the terms and conditions of these Documents and Specification.

9.4 Review and interpretation of all the Contractor's drawings, engineering data etc.

9.5 Witness or authorize his representative to witness tests at the manufacturer's works or at site, or at any place where work is performed under the Contract.

9.6 Inspect, accept or reject any equipment, material and work under the Contract, in accordance with the Specification / approved drawing & workmanship.

9.7 Review and suggest modification and improvement in completion schedules from time to time; and Supervise the Quality Assurance Programme implementation at all stages of the Works.

10.0 TESTS AND STANDARDS:

10.1 Tests: The type, acceptance and routine tests and tests during manufacture shall be carried-out on the material as per the relevant standards.

10.2 The bidders shall furnish original / Photostat copies duly notarised of the latest type test certificates from any NABL accredited / Govt. laboratory for all the type tests where ever prescribed in the relevant ISS / TW/MM specification of JDVVNL as prescribed in the bid.

10.3 Type Tests shall mean those tests, which are to be carried out to prove the process of manufacture and general conformity of the material to this Specification. **The type test certificates furnished by the bidder should not be older than three years;** in that case no fresh type test shall be insisted upon. In

case if the type tests are older than three years, the contractor has to arrange fresh type test at his cost and no extra time shall be allowed for arranging the type tests.

- 10.4** Acceptance Tests shall mean those tests, which are to be carried out on samples taken from each lot offered for pre-dispatch inspection, for the purposes of acceptance of that lot. These tests are to be conducted in the presence of owner's representative.
- 10.5** Routine Tests shall mean those tests, which are to be carried out on the material to check requirements, which are likely to vary during production.
- 10.6** Tests during Manufacture shall mean those tests, which are to be carried out during the process of manufacture and end inspection by the Contractor to ensure the desired quality of the end product to be supplied by him.
- 10.7** The norms and procedure of sampling for these tests will be as per relevant standards / specification wherever, sampling plan and procedure is not defined, the procedure/practice adopted in MM wing of Nigam shall be followed.
- 10.8** For all type and acceptance tests, the acceptance values shall be the values specified in this Specification.

11.0 Additional Tests:

- 11.1** The Owner reserves the right of having at his own expenses any other test(s) of reasonable nature carried out at contractor's premises, at site, or in any other place in addition to the specified type, acceptance and routine tests to satisfy himself that the materials / equipment comply with the Specification.
- 11.2** The Owner also reserves the right to conduct all the tests mentioned in the specification at his own expense on the samples drawn from the site at Contractor's premises or at any other test center. In case of evidence of non compliance, it shall be binding on the part of contractor to prove the compliance of the items to the technical Specification by repeat tests, or correction of deficiencies, or replacement of defective item all without any extra cost to the Owner.

12.0 MANDATORY TEST CHECKING OF MATERIAL ON RECEIPT IN THE STORES:

- 12.1 NO Material shall be allowed to use against the awarded works without successful testing as per provisions of Technical Specifications laid down under Section-"Technical Specification" for which testing facility is available at JdVVNL's CTL Lab, Jodhpur. The due payment against supplies & erection, whenever it falls due, shall be released only after receipt of successful test reports for the samples selected at stores by the NODAL OFFICER or the nominated officers of the JdVVNL.**

12.2 It is further clarified that the Samples from the material received in stores shall be selected by the Nodal/Nominated officer within a period of 3 days and the same shall be tested within a weeks' time in the CTL thereafter.

13.0 GUARANTEED TECHNICAL PARTICULARS:

The Guaranteed Technical Particulars of the various items shall be confirming to requirement of relevant Standard & the latest specification of MM wing of Jodhpur Discom prevailing at the time of last date of bid submission. Only successful bidder shall furnish the Guaranteed Technical Particulars of various items as required for this work however participating bidders shall have to furnish confirmation/ declaration to this effect that in the event of award they shall submit aforesaid GTP's with the proposal for approval of sub-vendor. The Bidder shall also furnish any other schedule / information as in their opinion is needed to give full description and details to judge the item(s) offered by them.

14.0 TYPE, DESIGN AND PARTICULARS OF MATERIAL:-

14.1 General Requirement:

14.1.1. All materials required in completing the work as per this Specification & drawings / design approved by the Nigam etc. must be manufactured and supplied using fresh raw materials. Re-molded, re-circulated materials are not acceptable to JdVVNL. **The procurement of materials must be made by the contractor directly from such manufacturers or through their authorized dealers/ distributors. Documentary evidences to this effect are to be made available to JdVVNL for necessary checks / verification of source of supply of materials.** Second hand materials / partially used materials / used materials are not acceptable. The contractor / bidder are required to indicate the names & address of the manufactures of various items from which he proposes to buy the same.

14.1.2. Further, the work shall be carried out strictly as per prevailing norms design, drawing, technical specifications, practice adopted in the Nigam for the same nature of work. Whether mentioned or not, all the items included in the tentative list of material shall conform to latest technical specifications adopted by MM wing of the Nigam and latest relevant IS/IEC / B.S. / NFC or any other code as prescribed by the Nigam for its works. In case any dispute arises, the current specifications, practice, norms, approved design and drawings of Nigam shall prevail.

14.2 PROCUREMENT FROM MANUFACTURERS / VENDORS:

The Contractor shall be permitted to procure materials from the manufactures / vendors who have following qualified requirements:

- (i) The vendor should be a established / reputed manufacture / supplier who

should have supplied the material to erstwhile RSEB or any present distribution company, RVVNL or any other power utility and the contractor / bidder are required to indicate the names & address of the manufactures of various items from which he proposes to buy the same.

- (ii) The manufacturing units shall have all facilities for conducting acceptance & routine tests of equipment / materials.
- (iii) The vendor must have supplied materials as per specifications laid down in the bid- documents of erstwhile RSEB / NIGAMS and have arranged their type testing not before last three years,
- (iv) The vendors approvals shall be obtained for supply of the equipment / materials from the Engineer well in advance.

15.0 JOINT SURVEY

15.1 The bidders are presumed to have acquainted themselves with the scope of work of this specification by doing a walk over survey of the area/feeder before submitting their bid. The quantum of works indicated in 'G' Schedule is tentative. After award of contract, a detailed survey shall however, required to be done by the contractor along with Nigam's authorized Engineer to assess actual quantum of work. The contractor shall have to execute the works in accordance with the quantities so assessed and approved by the Nigam. Further the contractor is also to carry out the detailed survey of individual work as per work order placed on them, to finalize route / marking of the lines, pole spotting, Sub-stations & its associated equipments for various locations and other activities.

15.2 Successful bidder shall carry out the joint survey and submit the inception report for approval of final BOQ in respect of supply, erection & retrieval of material duly signed by contractors representative & Nigam officer. He shall also prepare the route of, 33 KV, 11 KV, LT lines, location of distribution transformer on the town/city map. The final route map of 33 KV,11 KV & LT lines shall be prepared and submitted by the bidder showing the proposed pole position, ground clearance, conductor sag and various crossings i.e. railway lines, communication lines, EHT lines, rivers, road and stream crossings on the map

15.3 At the time of submission of joint survey report, necessary proposal for forest, railway, highway and river crossing be submitted within the commencement period, otherwise delay in submission shall be on the part of contractor. However, wherever such approvals are required from the concerned authorities the delay in receipt of approval from the date of submission of proposal by contractor through Engineer In-charge (To the statutory agency) shall not be on the part of contractor.

15.4 The road restoration charges wherever applicable shall be reimbursed by the Nigam on actual basis against the documentary proof of having deposited the same with the respective civic authority through the invoice submitted for road restoration charges actually paid to civic authority along with receipt. However,

the contractor has to submit the estimate against road cut restoration charges issued by local civic agency to Nodal Officer of JdVVNL for pre-examination / verification for according prior approval and only after approval these charges are to be deposited by the contractor with the respective local civic authority which shall be reimbursed by the NIGAM on the production of documentary proof having deposited the charges on actual basis. The permission for any required road cut is also to be arranged by the bidder/Contractor from the concerned civic agency. All assistance for coordinating in this regard will be provided by the Nigam

16.0 Check Survey of Pole Locations:

The check survey has to be conducted by the contractor to locate and peg marks pole positions on ground confirming to the approved profile and pole schedule. The Changes, if required, after detailed survey in the preliminary pole schedule shall be carried out by the Contractor and he shall thereafter submit a final pole schedule for the approval of employer (PM). The pole schedule shall show position of all Poles, type of Poles, span length, type of foundation for each pole and the deviation at all angles as set out with other details.

- (i) Details En-route: - All topographical permanent features, such as trees, telecommunication lines, buildings etc, 5.5 meter on either side of the alignment shall be detailed on the route plan.
- (ii) Clearance from ground building, trees etc.:- Clearance from ground buildings, trees and telephones lines shall be provided in conformity with the Electricity Act, 2003, as amended up to date. The bidder shall select the height of the poles such that all the electrical clearances are maintained.
- (iii) The minimum planting depth of poles shall be governed by IS: 1678, However, if due to the ground conditions e.g. water logged area etc. depth of planting of poles shall be suitably increased, with appropriate extension arrangement in order to maintain the required clearances the vendor will submit the details of the same on case to case basis.
- (iv) Appropriate Guarding arrangement shall be used for crossings of electric line / telecom line / road / drain / canal crossing and at all points as per statutory requirements. The bidder shall provide install anti climbing devise and danger plates on all poles and DT stations.

17.0 WORK PLAN:

After completing the work of survey, the contractor shall finalize the programme to commence and execute the work. The contractor shall also take care of the under mentioned points in construction of various lines.

17.1 Span

The number of consecutive spans between the section points and average span

shall be as per relevant standard / instructions of engineer at site.

17.2 Road Crossing

At all important road crossings, the structure shall be fitted with Strain type insulators but the ground clearance at the roads under maximum temperature and in still air shall be such that even with conductor broken in adjacent span, ground clearance of the conductor from the road surfaces will be as per Indian Electricity Rules.

17.3 Railway Crossings

At the time of route survey, the railway crossings shall be finalized as per the regulation laid down by the Railway Authorities. The approval for crossing railway track shall be obtained by the Nigam from the Railway Authority. At the time of submission of joint survey report, necessary proposal for railway crossing be submitted within the commencement period , otherwise delay in submission shall be on the part of contractor. However, wherever such approvals are required from the concerned authorities the delay in receipt of approval from the date of submission of proposal by contractor through Engineer In-charge (To the statutory agency) shall not be on the part of contractor.

17.4 Forest Clearance

The forest clearance shall be obtained by the Nigam and same shall be conveyed to the contractor before due date of commencement of the work. Delay in forest clearance after the due date of commencement if any, shall not be counted towards delay in execution. At the time of submission of joint survey report, necessary proposal for **Forest Clearance** be submitted within the commencement period , otherwise delay in submission shall be on the part of contractor. However, wherever such approvals are required from the concerned authorities the delay in receipt of approval from the date of submission of proposal by contractor through Engineer In-charge (To the statutory agency) shall not be on the part of contractor.

17.5 Clearance from Electrical inspector:

Construction of the line shall be done so as to meet the requirements of Indian Electricity Act 2003 / Indian Electricity Rules 2005 as amended from time to time. Necessary clearance from the Electrical inspector, Govt. of Rajasthan shall be obtained by the contractor before handing over the line to the Nigam. The necessary clearance fee paid by the contractor shall be reimbursed by Nigam. In case some defects / observations are pointed out & subsequent fee if any required to be paid shall not be reimbursed.

17.6 Power Line Crossings:

Where this line is to cross over another line of the same voltage or lower voltage,

provisions to prevent the possibility of its coming into contact with other overhead lines shall be made in accordance with the Indian Electricity Rules, 2005 as amended from time to time. All the works related to the above proposal shall be deemed to be included in the scope of the Contract except if modifications are required, in which case, the conditions to be agreed upon.

17.7 Tele-communication Line Crossing:

The angle of crossing shall be as near to 90 degree as possible. However, deviation to the extent of 30 degree may be permitted under exceptionally difficult situations. When the angle of crossing has to be below 60 degree, the matter will be referred to the authority in-charge of the telecommunication system in writing. On a written request from the Contractor, the permission of the telecommunication authority may be obtained by the Owner in writing. Also, in the crossing span, power line support will be as near the telecommunication line as possible, to obtain increased vertical clearance between the wires.

17.8 Clearances:

Minimum clearances to power conductors are to be maintained as per I.E Rules 2005. These minimum clearances are statutory and shall be maintained at all times. For the purpose of arriving at the vertical clearance, the maximum sag is to be calculated taking into account the highest conductor temperature as specified in the sag tables.

For the purpose of arriving at the horizontal clearance, the maximum deflection of conductor based on the maximum wind pressure in the zone is to be taken into account or deflection up to 45o from the vertical towards the object is to be assumed and clearances measured. The clearances apply in any direction.

Special consideration needs to be given to all clearances in the vicinity of recreation sites.

For crossing any railway track Indian Electricity Rules and the regulations of railway authorities are to be followed.

An additional vertical clearance of 300 mm must be allowed to compensate for long term creep than those mentioned in the charts.

17.8.1. Clearances to Ground and Roads

To ensure construction, operation & maintenance of ground clearance according to section-77 of I.E. Act, 2005.

(Distance in Meters)

S.No.	Supply Voltage	Ground Clearance		
		Road Crossing	Along the Road	Other Places

1.	LT Supply	5.8 Mtr.	5.5 Mtr.	4.6 Mtr. Bare Conductor & 4.0 Mtr. Insulated Wires
2.	11 KV Supply	6.1 Mtr.	5.8 Mtr.	
3.	33 KV Supply	6.1 Mtr.	5.8 Mtr.	5.2 Mtr.

17.8.2. Maximum Span

In case of overhead lines carrying LT, 11 kV and 33 kV voltage conductors, when erected in, over, along or across **any street**. The maximum span shall not exceed **45 Meters**.

17.8.3. Clearances to Buildings

To ensure clearance of electric lines from building according to Section -79 & 80 of I.E. Act 2005.

(Distance in Meters)

S.No.	Supply Voltage	Ground Clearance	
		Vertical	Horizontal
1.	LT Supply	2.5 Mtr.	1.2 Mtr.
2.	11 KV Supply	3.7 Mtr.	1.2 Mtr.
3.	33 KV Supply	3.7 Mtr.	2.0 Mtr.

17.8.4. Clearances to communication lines

(Distance in Meters)

Sl.N o	Item	LT	11 kV
1.	Minimum Vertical clearance between power and communication lines	1.525	1.525
2	Minimum clearance between guarding wire and telecommunication line	1.220	1.220

17.8.5. Clearness Between Power Lines when crossing each other

(Distance in Meters)

Sl. No	Voltage	LT	11 kV
1.	LT lines	2.44	2.44
2.	11 kV and 33 kV	2.44	2.44
3.	132 kV	3.05	3.05

4.	220 kV	4.58	4.58
5.	400 kV	5.49	5.49
6.	800 kV	7.94	7.94

17.8.6. Clearances to Railway Track

Railway crossings are classified into three categories as mentioned below:

Category 'A' : Tracks electrified on 1500 volts D.C. System(Eg.: Bombay city area)

Category 'B' : Tracks already electrified and likely to be electrified on 25 kV A.C.System in near future.

Category 'C' : Tracks not likely to be electrified in the foreseeable future.

17.8.7. Special Note:

These are the minimum clearances to be maintained to the lowest portion of any conductor of crossing including guarded wire under conditions of maximum sag.

Lines drawn upwards from the outer most guard wire to the center at an angle of 45⁰ to the vertical shall totally enclose the power conductors.

The structures are to be located in such a way that from the centre of the nearest railway track the distance shall be height of the structures +6 meters.

The span of crossing is to be restricted to 80% of the normal span. No jointing is permitted in the crossing span.

The crossing shall be in accordance with approved designs and drawings of Railways.

U.G. Cable pipe structure should be at 5 M away from Railway Power Support to be located by the Railway Authorities

Spun concrete pipe encasing cable under tracks should be laid at not less than 1 meter below

17.8.8. Method of crossing

Sl.No	Voltage	Category	Method of Crossing
1	LT	A,B,C	Cable crossing
2	11 kV	A,B,C	Cable crossing

17.8.9. Minimum clearance between Railway track and overhead lines

Sl.No	Voltage	Inside Station limits	Outside station limits
1	LT	Only by cable crossing	Only by cable crossing

2	11 kV	Only by cable crossing	Only by cable crossing
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17.8.10. Insulators to be used

Sl.No	Category	Type of Insulators
1.	A,B	Double set of strain insulators strings shall be used in the crossing span in conjunction with a yoke plate wherever necessary. In each string one strain insulator shall be provided extra than the normal design of over head line.
2.	C	Insulators as per normal design to be used.

18.0 STATUTORY REGULATIONS & STANDARDS-

18.1 Statutory Regulations:-

The contractor is required to follow local statutory regulations stipulated in Electricity (supply) Act, 1948, Indian Electricity Rules, 2005, as amended and other local rules and regulation referred in this specification.

18.2 Reference Standards:-

The codes and / or standards referred to in the specification shall govern, in all cases wherever such references are made. In case of a conflict between such codes and / or standards and the specification, latter shall prevail. Such codes and/or standards referred to shall mean the latest revisions, amendments / changes adopted and published by the relevant agencies unless otherwise indicated.

19.0 CONSTRUCTION PRACTICES:-

19.1 The standard construction practices as adopted by Jodhpur Vidyut Vitran Nigam Ltd are to be followed in construction of various works activities covered in the specification.

A. OVER HEAD LINES:

The construction of overhead-lines may be divided into the following parts:-

- a) Pit marking, pit digging.
- b) Erection of supports and concreting.
- c) Providing of guys to supports.
- d) Mounting cross-arms, pin and insulators,
- e) Paying and stringing of the conductor.
- f) Sagging and Tensioning of Conductors and pin binding.
- g) Crossings.
- h) Guarding.
- i) Earthing.
- j) Testing and Commissioning

19.2 The contractor should also follow & take care of the following points in execution of various activities:-

- i) All the material to be used shall be as per specification & drawing approved by the Jodhpur Discom duly inspected and cleared for use in construction at site by the authorized person of Jodhpur Discom.
- ii) The pole shall be erected only after fitting of V-cross Arms, Top Hampers. Washers shall be used with nuts and bolts.
- iii) PCC poles shall be transported to the pit points through hand trolley so as to avoid any cracks during transportation.
- iv) Top Hamper should always be fixed, straight with the help of two nut, bolts and washers on PCC poles.
- v) Earthing of all steel structure like Top Hamper X-arm shall be done by 8 SWG GI wire to connect all items to earth clamps/guard bracket PCC poles.
- vi) Alignment of pit of PCC pole shall be along the line. Alignment of lattice tower/PCC pole shall be along with the line and shall be erected through Ballies in the following length below the ground, pit shall be excavated along the line.

a)	9 M Long pole	:	1.5 M Deep
b)	8 M Long pole	:	1.5 M Deep
c)	12.8M Lattice Tower	:	1.8 M Deep
- vii) Erection of PCC pole shall be in alignment and back filling of soil should be in consolidated form by ramming and watering each layer of 0.15 grade (1:3:6), 1.65 M in length.
- viii) Stay set shall be provided 2.0 M below the ground and back filling of pit by soil shall be properly rammed. Alignment of pits for stay sets shall be across the lines. Angle of stay set provided shall be an angle of about 45 degree from the ground level. Only one stay set shall be provided in one pit.
- ix) 8 stay set shall be provided on each double pole structure and 5 on lattice tower to be provided for road, P&T and power line crossing.
- x) Guy insulator shall be used in each stay wire at height not less than 3.0 meters from the ground.
- xi) Special nuts of self-locking type will be used in stay sets.
- xii) Proper binding of stay wire shall be done. There shall be no gap between binding coils of same wire. 100mm gap shall be maintained in the binding of two strand of stay wire. Binding of alternate stay wire shall be in opposite

direction to each other. Proper size of stay and other clamps shall only provide.

- xiii) All civil works shall be carried out strictly as per norms using proper ratio of Cement concrete of ratio 1:3:6(M-10) 1cement3grit:6 sand with 25mm graded stone aggregate with smooth finish may be provided.
- xiv) Strut shall be provided at angle of 55 to 60 degree from the ground level. Top edge of strut shall be just touch the horizontal base of V-cross Arm/ Cut point.
- xv) Meggering value of all lines shall not be less than 2000 Mega-ohms after completion of work of line & sub-station.
- xvi) Stringing of conductor shall be done properly by using normal pullies and chain pulley block. Over tensioning should not be there in any case and it should be equal in all conductors having proper sag.
- xvii) Binding on pin insulator shall be done 0.230 M on either side of the insulator with one wire
- xviii) Two Nos. PG clamps of standard size as per conductor size shall be provided on each jumper. No separate piece of conductor will be allowed in jumpering. PG clamps for Dog conductor shall be 3 bolt type. As per Indian Electricity Act, atleast three earthing of the line are to be done in one Km. length.
- xix) For the proper earthing due care has to be given. The earth lead should be tightened with U-Bolt on earth wire or bolted on bracket and the earth lead may pass through bolt the hooks of poles.
- xx) The pits for all works including pole erection stay sets, earthings etc. shall be excavated by the contractor irrespective of type of soil whether it is ordinary or hard rock or any other type of soil.
- xxi) Pole mounted 11/0.4 KV Sub-station complete with transformer, G.O. switch, Horn gap fuse sets and lightening arrestors are to be erected as per approved drawing of the Nigam. The location for pole mounted S/S has to be provided as per load requirements. It should be ensured that all live parts are above 12 ft. from the ground. Proper earthing with galvanized M. S. Rod for Sub-station as per approved drawing is also to be ensured.
- xxii) Erection of LT Distribution Pillar Boxes of 400/160/100 Amps. Capacity Each 37"x24" base as per NIGAM standard including excavation, bricks, sand, cement, masonry of size 4"x3"x10" and 3' in ground and 1½' above road level with muffing to support and mounting the pillar. The masonry will have 4"x4" opening 2"below ground level two in the rear side and one each in the remaining sides to facilitate entry & exit of incoming and outgoing LT cable

.However the exact sizes & general construction design of the foundation shall be given by the Engineer In-charge of the contract with in three weeks of the contract agreement .The contractor shall take into account this while quoting the rates.

- xxiii) Earthing shall generally be carried out in accordance with the requirements of Indian Electricity Rules, 2005 and the relevant regulations of the Electricity Supply Authority concerned and as indicated below:
- (a) All metallic supports shall be earthed.
 - (b) For PCC poles the metal cross-arms and insulator pins shall be bonded and earthed at every pole for HT lines.
 - (c) All special structures on which switches, transformers, fuses, etc., are mounted / likely to mount should be earthed.
 - (d) The supports on either side of the road, railway or river crossing should be earthed.
 - (e) All supports (Steel & PCC) HT lines passing through inhabited areas, road crossings and along such other places, where Earthing of all poles is considered desirable from safety considerations should be earthed.

19.2.1. PROVIDING OF GUYS TO SUPPORTS:

In spite of careful planning and alignment of line route, certain situations arise where the conductor tries to tilt the pole from its normal position due to abnormal wind pressure and deviation of alignment, etc. When these cases of strain arise, the pole is strengthened and kept in position by guys. One or more guys will have to be provided for all supports where there is unbalanced strain acting on the support, which may result in tilting/uprooting or breaking of the support.

Guys are braces fastened to the pole. In this work anchor type guy sets are to be used. These guys are provided at (i) angle locations (ii) dead end locations (iii) T - off points (iv) Steep gradient locations and (v) where the wind pressure is more than 50 kg / Sq.mtrs.

The fixing of guys stays will involve (i) pit digging and fixing stay rod (ii) fastening guy wire to the support (iii) Tightening guy wire and fastening to the anchor. The marking of guy pit, digging and setting of anchor rod must be carefully carried out. The stay rod should be placed in a position so that the angle of rod with the vertical face of the pit is 30°/45° as the case may be.

Before start of erection of Stay sets, required concreting materials like Cement, Sand, Stone Chips and Construction water need to be made available near the pit.

GI Stay wire of size 7/4.0 mm 8.5 kg stay wire per set and 20mm stay rod for 33 KV lines and DP whereas 7/3.15 mm 5.5 kg (10 SWG) stay wire per set and 16 mm stay rod for 11 KV lines and DP.

For double pole structure (DP), four stays along the line, two in each direction and two stays along the bisection of the angle of deviation or as required depending on the angle of deviation are to be provided.

After concreting of 0.3 cmt per stay, back filling and ramming must be done well and appropriate time / days shall be allowed for proper setting.

The free end of the guy wire/stay wire is passed through the eye of the anchor rod, bent back parallel to the main portion of the stay/guy and bound after inserting the G.I. thimble, where it bears on the anchor rod. If the guy wire proves to be hazardous, it should be protected with suitable asbestos pipe filled with concrete of about 2 m length above the ground level, painted with white and black strips so that, it may be visible at night. The turn buckle shall be mounted at the pole end of the stay and guy wire so fixed that the turn buckles is half way in the working position, thus giving the maximum movement for tightening or loosening.

19.2.2. Conductor Erection:

Conductor erection is the most important phase in construction. The main operations are:-

- (a) Transportation of Conductor to works site.
- (b) Paying and Stringing of Conductor
- (c) Jointing of Conductor
- (d) Tensioning and Sagging of Conductor

The conductor drums are transported to the tension location. While transporting precautions are to be taken so that the conductor does not get damaged / injured. The drum could be mounted on cable drum support, which generally is made from crow-bar and wooden slippers for small size conductor drums. The direction of rotation of the drum has to be according to the mark in the drum so that the conductor could be drawn. While drawing the conductor, it should not rub causing damage. The conductor could be passed over poles on wooden or aluminum snatch block mounted on the poles for this purpose.

The mid span jointing is done through compressions or if helical fittings are used the jointing could be done manually. After completing the jointing, tensioning operation could be commenced. The conductor is pulled through come-along clamps to stringing the conductor between the tension locations. Sagging of conductor has to be in accordance to the Sag Tension chart. In order to achieve it, it is preferred to pull the conductor to a tension a little

above the theoretical value so that while transferring it from the snatch blocks to the pit insulators and to take care of temperature variation. Proper sag could be achieved. Sagging for HT line is mostly done by "Sighting". A horizontal strip of wood is fixed below the cross-arm on the pole at the required sag. The lineman sees from other end and the sag is adjusted by increasing or decreasing the tension. The tension clamps could then be finally fixed and conductor be fixed on pin-insulators. All fittings, accessories like guys, cross-arms, etc., could be checked as they should not have deformed.

The maximum permissible spans for all the lines of HT and 0.4 KV are prescribed according to the design of the supports. Sag-tension charts for these conductors are to be followed.

19.2.3. STRINGING OF CONDUCTOR:

- i) **The works include spreading of conductors or HT/LT cables without any damages and stringing with proper tension without any kinks / damages including binding of conductor at pin points, jumper at cut points etc, and the ground and line clearances at road crossings along roads. LT crossing and others shall be as per the relevant I.E. rules.**
- ii) While transporting conductors drums to site precautions are to be taken so that the conductor does not get damaged. The drum shall be mounted on cable drum support, The direction of rotation of the drum shall be according to the mark in the drum so that the conductor could be drawn, While drawing the conductor, it shall not rub causing damage, the conductor shall be passed over poles on wooden or aluminum snatch block (pulley) mounted on the poles for this purpose.
- iii) The conductor shall be pulled through come-along clamps to stringing the conductor between the tension locations.
- iv) Conductor splices shall not crack or otherwise be susceptible to damage in the stringing operation. The contractor shall be used only such equipment/ methods during conductor stringing which ensures complete compliance in this regard. All the joints including mid span joints on the conductor and earth wire shall be of the compression type in accordance with the recommendations of the manufacturer, for which all necessary tools and equipment like compressors dies, etc, shall be obtained by the contractor, each part of the joint shall be cleaned by wire brush till it is free of rust or dirt, etc, and be properly greased with anti corrosive compound, before the final compression is carried out with the compressors. After completing the jointing, tensioning operation shall be commenced.
- v) **All the joints or splices shall be made at least 15 meters away from the**

pole No. joints of splices shall be made in spans crossing over main roads, railways and small rivers, spans. Not more than one joint per sub conductor span shall be allowed. The compression type fittings shall be of the self centering type. After compressing the joint the aluminum sleeve shall have all corners rounded; burrs and sharp edges removed and smoothed.

- vi) During stringing of conductor to avoid any damages to the joint the contractor shall use a suitable protector for mid span compression joints in case they are to be passed over pulley blocks / aerial rollers. The pulley groove size shall be such that the joint along with protection can be passed over it smoothly.

19.2.4. TENSIONING AND SAGGING OPERATIONS:

- (i) The tensioning and sagging shall be done in accordance with the approved stringing charts or sag tables. The “initial” stringing chart shall be used for the conductor and “final” stringing chart for the earth wire. The conductors shall be pulled up to the desired sag and left in running blocks for at least one hour after which the sag shall be re- checked and adjusted, if necessary before transferring the conductor from the running blocks to the suspension clamps. The conductor shall be clamped within 36 hours of sagging in.
- (ii) The sag will be checked in the first and the last section span for sections up to eight spans and in one additional intermediate span for sections with more than eight spans. The sag shall also be checked when the conductors have been drawn up and transferred from running blocks to the insulator clamps.
- (iii) At sharp vertical angles, conductor and earth wire sags and tensions shall be checked for equality on both sides of the angle and running block. The suspension insulator assemblies will normally assume verticality when the conductor is clamped. Tensioning and sagging operations shall be carried out in calm weather when rapid changes in temperature are not likely to occur.

19.2.5. TAPPING ARRANGEMENT FROM EXISTING 11 KV LINE :

Tapping of existing 11 KV line shall be taken by providing a horizontal cross arm below the existing V cross arm of the pole and mounting disc insulators on it. The tapping conductors may be guided by providing pin insulators as required.

A new two pole structure shall be erected within 10-15 meters of this tapping pole & the new line will emerge from this two pole structure with disc

insulators. The Tapping pole to the double pole conductor tension should be such that it avoids looseness & sag to the extent possible & it should avoid extra tension on the tapping pole.

Alternately, tapping of existing 11 KV line can be done by erecting two single poles with "V" Cross arms & top clamps, just below the line, as such forming a Double Pole Structure. The Horizontal cross arm shall be provided below the "V" cross arms on both poles and disc insulators are mounted on it. The tapping conductors may be guided by providing pin insulators as required.

Wherever the proposed spur line length is more than two km after the tapping an AB switch arrangement shall be provided at the double pole for isolation of the line.

19.2.6. FINAL CHECKING, TESTING AND COMMISSIONING:

After completion of the works, final checking of the line shall be carried out by the Contractor to ensure that all foundation works, pole erecting and stringing have been done strictly according to the specifications and as approved by the Owner. All the works shall be thoroughly inspected in order to ensure that:

- 1 Sufficient backfilled earth covers each foundation pit and is adequately compacted.
- 2 All poles are used strictly according to final approved drawing and are free of any defect or damage whatsoever.
- 3 The stringing of the conductors have been done as per the desired clearances. 4 All conductor accessories are properly installed.
- 5 All other requirements for completion of works such as fixing of danger plate and anti- climbing device have been fulfilled.
- 6 The insulation of the line as a whole is tested by the Contractor through provision of his own equipment, labor, etc. to the satisfaction of the purchaser.
- 7 All poles are properly grounded.
- 8 The line is tested satisfactorily for commissioning purpose.

19.2.7. Anchoring and Providing Guys for Supports

Guys are to be provided to counter balance the load on the supports due to pulling of the conductors, so that the supports remain straight in vertical position without bending in any direction.

The stays/guys shall be provided at the following locations.

1. Angle locations
2. Dead end locations
3. Tee off points
4. Steep gradient locations to avoid uplift on the poles

5. Two numbers storm guys to the central pole between two cut points perpendicular to the line direction.

The installation of stay/guy will involve the following works:

1. Excavation of pit
2. Fixing of base plate to the stay rod and concreting and back filling of the pit.
3. Fastening guy wire to the support along with stay clamp and turn buckle, after fixing guy insulator(s) as per the drawing.
4. Tightening guy wire and fastening to the anchor.

The marking of the guy pit for excavation, the excavation of pits and setting of the anchor rod must be carefully carried out. The stay rod shall be placed in a position such that the angle of inclination of the rod with the vertical face of the pit is 45o.

The anchor plate shall be of size 450 x 450 x 75mm, made of RCC with 1:2:4 ratio and using 20mm machine crushed granite metal. Alternatively M.S. Plate of size 450 x 450 x 10mm may also be used. The pit shall be filled with 1:3:6 cement concrete using 40mm granite metal. The size of concrete block shall be 450x450x1265mm at the bottom covering the anchor plate completely. The concrete shall be cured for 14 days and balance portion of the pit back filled with earth as per the specification.

Proper form of moulds adequately braced to retain proper shape shall be used. The moulds should be made water tight so that cement cream will not come out. After concreting to the required height the top surface should be finished smooth, with 1:6 slope towards the outer edge to drain off water.

In wet locations, submerged locations and marshy locations the site shall be completely dewatered during concreting and for 24 hours after completion. Moulds shall not be removed before a lapse of 24 hours after completion of concreting. After removal of form boxes, the concrete surfaces where ever required shall be plastered with a rich mix of cement and sand mortar in the shortest possible time.

After the curing time of concrete is over, the free end of the guy wire is passed through the eye of the anchor rod, bent back parallel to the main portion of the guy and bound after inserting the G.I. Thimble. The loop is protected by G.I. Thimble where it bears on the anchor rod. Where the existence of guy wire proves hazardous, it should be protected with suitable asbestos pipe of 50 mm dia. and 2 mts length, filled with concrete, duly painted with black and white stripes with enamel paint of approved quality and make, so that it may be visible at night.

The Turn buckle shall be mounted at the pole end of the stay and guy wire so fixed that the eye bolt is half way in the working position, thus giving the

maximum movement for tightening or loosening.

Guy insulators shall be provided to prevent the lower part of the guy from becoming electrically energised by contact with the upper part of the guy, when the conductor snaps and falls on them or due to leakage. No guy insulator shall be located at less than 3.5 mts (vertical distance) from the ground. The minimum distance along the stay between the point of contact with the pole and the top of stay insulator is 1.8 mts

Guy insulators shall comply with IS: 5300. Where stay angles of less than 45° are unavoidable the use of stay angles from 30° to 44° or bow guys or flying stays shall only be done with the approval of the Engineer. The anchoring and providing of guys for supports shall be done as per the drawing. The stay wires used for anchoring shall conform to IS: 2141. The individual wire used to form "stranded stay wire" is to be of tensile grade 4 having minimum tensile strength of 700N /mm².

19.2.8. Do's and Don't's

For the guidance certain DO'S and DON'TS are given below while stringing the conductor.

Do's

1. Use proper equipment for binding aluminium conductors at all times.
2. Use skids or similar method for lowering conductor drums from transport.
3. Examine reel before unreeling for presence of nails or any other object, which might damage conductor.
4. Rotate the reel while unwinding the conductor in the direction marked on the reel.
5. Grip all strands while pulling out the conductor.
6. Control the unreeling speed with a suitable braking arrangement.
7. Use wooden rods for suitable braking arrangement.
8. Use long straight, parallel jaw grip with suitable liners when pulling conductor, thus avoiding nicking or kinking of the conductor.
9. Use free running sleeves or blocks with adequate grooves for drawing / paving conductors.
10. Use proper sag charts.
11. Mark conductors with adhesive tape which will not damage the strands.
12. Make all splicing with proper tools
13. Chromate or graphite conducting oxide inhibiting grease, should be applied before cleaning with wire brush, where ever jointing takes place.

Don'ts

1. Do not handle conductor without proper tools at any stage.
2. Do not pull conductors without ensuring that there are no obstructions on the ground.
3. Do not pull out excess quantity of conductor than is required.
4. Do not make jumper connections on dirty or weathered conductor;

clean the conductor using wire brush.

5. Do not handle aluminum conductor in a rough fashion but handle it with a care it deserves.

19.2.9. Workmanship

The Contractor shall entirely be responsible for the correct erection of line as per specification / approved drawings and their correct setting and alignment, as approved by the Engineer. If the supports and DP Structures after the erection are found to differ from approved route maps and drawings or to be out of alignment, the Contractor shall dismantle and re-erect them correctly at his own cost without extension of time. The supports must be truly vertical and in plumb after erection and no straining will be permitted to bring them to vertical position. Verticality of each support shall be checked by the Contractor and furnished to the Engineer. Maximum permissible tolerance is 50 mm in respect of verticality.

19.2.10. Final checking, testing and commissioning

After the completion of the works final patrolling and checking of the line shall be done by the Contractor to ensure that all the foundations works, pole erection and stringing has been done as approved by the Engineer and also to ensure that they are complete in all respects. All works shall be thoroughly inspected keeping in view of the following main points.

- Sufficient back filled earth is lying over each foundation pit and it is adequately compacted.
- Concreting of poles is in good and finally shaped condition.
- All the accessories and insulators are strictly as per the drawing and are free from any defects or damages, whatsoever.
- All the bolts and nuts and pole fittings are galvanised and as per contractual provisions.
- The stringing of the conductors has been done as per the approved sag and clearances as per IE rules are available.
- No damage, minor or major to the conductor, earth wire, accessories and insulators strings, still unattended are noticed.
- At all tension points, jumpers are provided to each phase with two Nos aluminium alloy PG clamps.
- Any additional tests as required by the Engineer to prove that the works are as per the specification are to be carried out by the Contractor at no extra cost.

- The Contractor shall submit a report to the above effect to the Engineer. In case it is noticed later that some or any of the above are not fulfilled, the Engineer has option to get such items rectified through other agencies and recover the cost of such works from the bills payable to the Contractor against that contract or any other contract executed by him for the JdVVNL.

19.2.11. In addition to the above, the contractor shall be responsible for testing and ensuring that the total and relative sags of the conductors are within the specified tolerance. Such tests shall be carried out at selected points along the route as required by the Engineer and the contractor shall provide all necessary equipment and labour to enable the tests to be carried out.

Should any pole found to be leaning at a later date with in 24 months from the date of handing over, the Contractor shall rectify the same without any extra cost.

Should any cross arm, top cleat or insulator found to be out of alignment / leaning at a later date with in 24 months from the date of handing over, the contractor shall rectify the same without any extra cost.

The Engineer reserves the right to demand replacement of poles, clamps etc., for rectification of such defects.

19.2.12. The JdVVNL staff must make a final check of the complete line, after the contractor confirms that he has carried out all the checks required for energising the line. The Engineer shall take full responsibility of checking the Contractor's work as per the specification and furnish a certificate to that effect.

After satisfactory tests on the line and approval by the Engineer the line shall be energised at full operating voltage before handing over.

19.3 CABLE LAYING AND INSTALLATION TECHNIQUES:

19.3.1. Cable as per scope indicated in this specification, shall be laid underground in flat formation throughout the route as per relevant IS. However, as per requirement of the field, the cables shall also have to be laid:

1. In Hume Pipe or GI pipe.
2. In air at terminations.
3. At varying depths due to obstructions.
4. As per approved drawings.

The final route shall however be site specific. The contractor shall prepare the final route drawing based on the design and planning criteria provided in this document and get the same approved from Employer/JDVVNL before starting the cable laying work.

19.3.2. TRENCHING:

The cable trench work involves earth excavation for cable trench, back filling and removal of excess earth from site. The work site shall be left as clean as possible.

The trench shall be excavated using manual and mechanical methods including air compressor driven pneumatic drill as per field conditions. Most main roads are of asphalt surface and some of the roads with cement concrete surface.

An air compressor with pneumatic drill or equivalent mechanical tool will be essential if the road crossings are to be speedily made. Special system of laying hume pipe under road without digging the surface may be adopted if feasible.

Where paved footpaths are encountered, the pavement slabs shall be properly stored and reinstated. Identification markers of other services shall be properly stored and restored.

The sides of the excavated trenches shall, wherever required, be well shored up with timber and sheeting.

Suitable wooden/ sheet steel barriers should be erected between the cable trench and pedestrian/ motorway to prevent accidents. The barrier could be made out of sheet steel or wood planks. These could be portable types of size 1.5 m long by 1.2 m (height). These should be painted with red and white coloured cross stripes. Warning and caution boards should be conspicuously displayed. Red lights as warning signal should be placed along the trench during the nights.

The excavated material shall be properly stored to avoid obstruction to public and traffic movement.

The bottom of the excavated trench should be leveled flat and free from any object, which would damage the cables. Any gradient encountered shall be gradual.

The depth of open trench should be as per ISS: 1255/84 according to size & voltage ratings. For 33kv 30 cm x 120 cm and for 11kv / 1.1 kv 30 cm x100 cm.

19.3.3. TRIAL HOLES:

The bidder shall excavate trial holes, for alignment purpose at appropriate distance apart as warranted by the local conditions, keep a record of findings and close the trial holes properly to avoid hindrance / accidents to pedestrian traffic. The final route alignment of cable shall be decided based on the finding of the trial hole.

It is the responsibility of the contractor to maintain as far as possible the required statutory clearances from other utility services.

Any damage caused, inadvertently to any utility services shall be the sole responsibility of the contractor.

The scope also includes the Trench-less laying of H.T. Cables. The best cable laying practices are to be adopted by using latest "HDD " techniques with "VERMIER" machines in specific locations such as road crossings and locations where open trench digging is not possible. The depth of cable shall be maintained from 1.2 Mtr (Min.) to 2.0 Mtr(Max.), and a proof in the form "DEPTH GRAPH" must be produced by the contractor.

19.3.4. CABLE HANDLING:

The inspection of cable on receipt, handling of cables, paying out, flaking, cushioning with sand or sieved compacted native soil, back-filling, reinstatement of road surfaces, providing and fixing joint markers, route markers , precautions of joint pits, sump holes and all necessary precautions that are required shall be carefully planned and in general conform to IS 1255-1984 or its equivalent. Standard practices should be followed while handling the cable drums, The drum shall not be thrown or dropped on the ground from the carriers such as trucks or railway wagon during unloading. The cable drum shall be unloaded with the help of Cranes or Forklifts or using a proper ramp having inclination 1:3 to 1:4 in order to avoid mechanical damage to the outer layer of the cables. The cable drums shall be lifted or stored with its flanges always vertical. The cable drum shall be rolled in the direction of arrow only, in order to avoid loosening of cable winding. The drum shall not be rolled on rocky, uneven surface and for longer distances, it may damage the drum and cable. While pulling the cables through ducts, care should be taken to avoid abrasion of sheath around sharp bends. The minimum bending radius also should be maintained as specified above and in any case, should not be less than 10/15 times the overall diameter of cables. A suitable lubricant may be used whenever pulling is done in longer ducts. Jerks should be avoided while pulling the cables.

Recommended safe pulling force with stockings for HT XLPE cables:

- a) For Unarmoured cable : $P = 5DxD$ where P= pulling force
- b) For Armoured cable : $P = 9DxD$ D= dia. of cable in mm

Recommended safe pulling force when pulled eye for HT XLPE cables:

For Aluminium conductors : 30 N/mm Sq.

For Copper Conductor : 50 N/mm Sq.

Cable shall be unwound from the drum by lifting the drum on the center shaft supported both ends with suitable jacks/stands. Under no circumstances the cable winding shall be lifted off a coil or drum lying flat at the flanges. This would cause serious twist and damages.

19.3.5. DAMAGE TO PROPERTY:

The contractor shall take all precautions while excavation of trench, trial pits etc., to protect the public and private properties and to avoid accidental damage. Any damage so caused shall be immediately repaired by contractor at his own cost and brought to the notice of the concerned persons and to the

Employer/JdVVNL.

- Contractor shall arrange third party liability insurance for the above purpose.
- The contractor shall bear all responsibilities and liabilities and shall bear all costs of the damages so caused by him or by his workman or agents.
- At places where the cables cross private roads, gates of residential houses or buildings, the cables shall be laid in RCC Hume pipes.

19.3.6. CABLE ROUTE MARKERS/CABLE JOINT MARKERS

Permanent means of indicating the position of joints and cable route shall be fabricated, supplied and erected. Route Marker shall be provided at every 100 meter and at the turning points. Markers provided shall be as per the field requirement. If the route passes through open fields, markers should be conspicuously visible and above ground surface and particularly along the Road turns except on road & pavements where they may interfere in the movement of traffic or pedestrians.

The markers should incorporate the relevant information. The name of the owner, voltage shall be marked on the route marker. The details shall be as per the drawing enclosed.

The markers shall be of stone or tile construction. The design shall be such that it cannot be pulled out. Tile type marker shall be used along the pavement. Stone/ PCC markers shall be used at other locations.

The stone/PCC markers shall be cut into proper size as per drawing, covered with cement plaster with engraving of the information required.

19.3.7. DEPTH OF LAYING & SPACING BETWEEN CABLES:

Minimum depth of laying from ground surface to top of cable shall be as following:

- 33kv cable : 1.05 meter.
- 11 kV cable : 0.90 meter.
- 415 volt cable : 0.75 meter.
- 11kV, 415 V Cables at Road crossing : 1.0 meter.
- 11Kv,415V Cables at Railway crossing
(Measured from bottom of sleeper to top of pipe.) : 1.0 meter.

Whenever 2Nos. 33kV cable or 11kV Cables have common route, they can be laid in **same corridor (Trench)** at the specified depth as indicated in the drawing.

Wherever the proper depth is not achievable due to presence of other services or for other reasons, the cable shall be laid deeper or in hume pipe or GI pipe

as required depending upon the site condition.

	<p>Laying of underground cable in vermier machine:</p>	<p>The laying of underground cable wherever carried out by vermier machine should ensure that pulling of underground cable through the two consecutive holes carried out by vermier machine should not be apart by more than the distance mentioned hereunder against each size of underground cable.</p> <ul style="list-style-type: none"> i) 33KV: 300sq.mm- 70 Mtr. ii) 11KV :300 sq.mm- 100 Mtr. iii) 11Kv ;185 sq.mm & below – 100 Mtr.
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19.3.8. PAYING OUT THE CABLE

The excavated cable trench shall be drained of all water and the bed surface shall be smooth, uniform and fairly hard before paying out the cable. The cable shall be rolled in the trench on cable rollers, spaced out at uniform intervals. The paying out process must be smooth and steady without subjecting the cable to abnormal tension. The cable on being paid out shall be smoothly and evenly transferred to the ground after providing the sand cushion. The cables shall never be dropped. All snake bends shall be straightened. Suitable size cable stocking pulling eye shall be used for pulling the cable. While pulling the cable by winches or machines, the tension loading shall be by tension indicator and shall not exceed the permissible value for the cable. The cable laying shall be performed continuously at a speed not exceeding 600 to 1000 meter per hour.

The cable end seals shall be checked after laying and, if found damaged, shall immediately be resealed. Sufficient number of heat shrinkable cable end sealing caps shall be stocked at site stores for testing and jointing work. The integrity of the outer sheath shall be checked after the cable is laid in position.

19.3.9. SAND BEDDING AND BRICK

The cable shall be completely surrounded by well-compacted sand to such a thickness and of such size that the cable is protected against damage. The thickness of the cable sand should normally be a minimum of 7.5 cm in all directions from the cable surface. Cable sand with a grain size less than 8 mm shall be preferred to offer good protection to cable.

A brick layer of thickness 70 mm brick shall be provided over the sand for protection of the cable with **Two Layers of 'A' CLASS RED BRICKS** (9x2 per meter).

19.3.10. FLAKING:

The cables shall be flaked and left with slight extra lengths at jointing bays for

expansion and flexibility. Sand Bedding shall be provided as no special thermal back filling is required.

19.3.11. BACK FILLING

Normally back filling shall consist of the material earlier excavated. However, bigger stones or pieces of rock should be removed.

19.3.12. PREVENTION OF DAMAGE DUE TO SHARP EDGES:

After the cables have been laid in the trench and until the cables are covered with protective covering, no sharp metal tool shall be used in the trench or placed in such a position that may fall into the trench. Straight and curved rollers used shall have no sharp projecting parts liable to damage the cable. While pulling through pipes and ducts, the cable shall be protected to avoid damage due to sharp edges. The cables shall never be bent, beyond the specified bending radius.

19.3.13. ROAD, RAILWAY TRACKS, WATER PIPE LINE CROSSINGS:

RCC hume pipe shall be used for crossing of Road and cast iron or GI pipes for railway track and water pipe line. One spare pipe at each location of 11 kV cable crossing shall be laid. Cable pipe size/ laying details shall be as per IS 1255-1983. **The road cutting for cable trench, whether cement concrete, asphalt or macadam road surface shall be undertaken after obtaining approval for cutting from the road owning authorities, traffic police, telephone authorities and work should be planned to be completed in the shortest possible time.** Where necessary the work shall be planned during night or light traffic periods. **The railway track crossing design shall be got approved from the railway authorities and the contractor shall do work in coordination with them.**

In the excavated trench across the road the pipes shall be laid, excavation backfilled compacted and surface shall be redone in the shortest possible time.

Open Drain Crossing: Where ever the cable has to cross open drains, with long span, the cable shall be laid in suitable size G. I. pipe properly joined with suitable collars. The GI pipe shall be firmly supported on pillars, columns, or suitable support of RCC foundation.

The road-cut charges wherever applicable shall be reimbursed by the Nigam on actual basis against the documentary proof of having deposited the same with the respective civic authority through the invoice submitted for road restoration charges actually paid to civic authority along with receipt. However, the contractor has to submit the estimate against road cut restoration charges issued by local civic agency to Nodal Officer of JDVVNL for pre-examination / verification for according prior approval and only after approval these charges

are to be deposited by the contractor with the respective local civic authority which shall be reimbursed by the NIGAM on the production of documentary proof having deposited the charges on actual basis. The permission for any required road cut is also to be arranged by the bidder/Contractor from the concerned civic agency. All assistance for coordinating in this regard will be provided by the Nigam

19.3.14. FOOT PATH CUTTING:

The slabs, kerbstones, on the roads/ footpath shall be removed and reinstated without damage.

19.3.15. REINSTATEMENT:

After the cables and pipes have been laid and before the trench is backfilled, all joints and cable positions should be carefully plotted in drawing and preserved and provided to the

Engineer of Employer/JdVVNL. The protective covers shall then be provided, the excavated soil riddled, sieved and replaced. It is advisable to leave a crown of earth not less than 50 mm and not more than 100 mm in the centre and tapering towards the sides of the trench.

The temporary reinstatement of roadways should be inspected at regular intervals, more frequently in rainy season and immediately after overnight rain for checking settlement and if required, the temporary reinstatement should be redone.

19.3.16. JOINTING BAYS:

The bidder shall identify the location of the joint bays after carrying out detailed survey of the cable route and excavation of the trial pits. The delivery lengths of the cables shall match the location.

The joint bay should have a flat and level surface. At the bottom in a corner, a sump pit shall be made, if necessary, for bailing out water.

The contractor shall follow standard practice in making joint bay, jointing and back filling after making joint and testing for the voltage class required.

All works shall be carried out in presence and supervision of the Engineer of Employer/JdVVNL.

19.3.17. TOOLS AND PLANTS:

The successful bidder shall have all necessary tools, plant and equipment to carry out the survey and cable installation work.

The bidders are instructed to give all the details of equipment at their disposal, to carry out the work successfully and speedily.

19.3.18. BENDING RADIUS:

Care shall be taken during laying to avoid sharp bending, and twisting.

Recommended minimum bending radius for LT/HT cables:

	LT	HT	
Single Core	15xD	20xD	D= Dia of cable in MM
Multicore	12xD	15xD	

19.3.19. JOINTING AND TERMINATION OF CABLES:

General: The cable jointing personnel and his crew shall have good experience in the type of joints and terminations that are used. The jointing work shall commence as soon as two or three lengths of cables have been laid. All care should be taken to protect the factory-plumbed caps/ seals on the cable ends, and the cable end shall be resealed whenever the end is exposed for tests.

Jointing of cables in carriage ways, drive ways under costly paving, under concrete or asphalt surfaces and in proximity to telephone cables, and water mains should be avoided wherever possible.

Sufficient over lap of cables shall be allowed for making the joints.

The joint bay should be of sufficient dimensions to allow the jointers to work with as much freedom of movement and comfort as possible. Sufficient space should be kept below the cable to be jointed.

The joints of different phases shall be staggered.

All jointing shall be done by joint manufacturer's jointers or under their supervision.

19.3.20. TENTS / COVERS:

An enclosure or suitable protection cover shall be used in all circumstances wherever jointing work is carried out in the open irrespective of the weather conditions. The joint shall be made in dust free and clean atmosphere.

19.3.21. PRECAUTIONS BEFORE MAKING A JOINT/ END TERMINATION:

The cable end seals should not be opened until all arrangement have been made for jointing and all necessary precautions have been taken to prevent circumstances arising out of rainy/ inclement weather conditions, which might become uncontrollable.

If the cable end seals or cable ends are found to have suffered damage the cables should not be jointed, without tests and rectification.

19.3.22. MEASUREMENT OF INSULATION RESISTANCE:

Before and after jointing, the insulation resistance of both sections of cables

shall be checked.

19.3.23. IDENTIFICATION:

The identification of each phase shall be clearly and properly noted. The cables shall be jointed as per the design approved by the Employer/JdVVNL based on the proposal submitted by the Contractor. Each cable shall have identification for phase and circuit at joint bays.

19.3.24. MAKING A JOINT/ END TERMINATION:

Comprehensive jointing instructions should be obtained from the manufacture of jointing/end kits and meticulously followed.

The materials used in the joints/ end kits like ferrules, screen / armour continuity bonds, lugs etc., shall be of good quality and conform to standards.

The jointing tools shall be appropriate and as per the requirement of jointing XLPE, PVC cables.

19.3.25. CABLE TERMINATIONS:

The cable terminations used are to be of outdoor type.

The preparation of the cable end for installing the terminations and the precautions to be taken before fixing the terminations shall be followed as in the case of the cable jointing procedures.

The instructions furnished by the termination manufacturer shall be strictly followed.

All terminations shall be done by joint manufacturer's jointers or under their supervision.

At cable terminating end, the following provisions for supply and erection are to be included.

- (i) A terminating structure should be provided where necessary for supporting the cable to be terminated (except at the ring main unit ends)
- (ii) A sufficient length of spare cable shall be left in the ground, for future needs.
- (iii) The rise of the cable immediately from the ground shall be enclosed in 150 mm dia. PVC/GI pipe to protect against direct exposure to the sun.
- (iv) The cable shall be properly fastened to the support using non-metallic clamps.
- (v) Appropriate labels shall be fixed identifying the phase circuit, voltage and date of commissioning etc., on the cable supporting structure.
- (vi) The sealing end shall be mounted on insulators to isolate them from their supporting steel work.

- (vii) Protection from contact with the exposed metal work at the termination shall be provided by resin bonded glass fiber shroud.
- (viii) Providing earth stations with all required materials, like leads, connectors etc for earthing of armour and screen.

19.3.26. BONDING OF SCREEN / ARMOUR:

The screens and armour at both ends shall be brought out and solidly bonded to the earth station.

All accessories and consumables used in the termination should be of good quality and compatible with the cable.

In case of armoured cable. It is also important to ensure that all armoured wires and all faces of armoured clamps making contact with them thoroughly cleaned during installation and that the clamps are adequately tightened to ensure good electrical contact. Provision should be made for earthing the wire armour to the main earth electro at the supply and by means of a metallic bond of adequate conductance. The bonding connection should be as short as possible. Where long cable length are laid it is also desirable to earth the armour wires at interval, preferably at joint positions, to earth electrode of sufficient at low resistances to ensure safety.

19.3.27. CONNECTION OF RADIAL WATER BARRIER AND CABLE SCREEN:

If the metallic radial water barrier is insulated from the metallic wire screen a connection suitable to carry the currents occurring during operation must be installed between metallic radial water barrier of the cable and metallic wire screen in joints and sealing ends.

19.3.28. ERECTION OF CABLE TERMINATING STRUCTURES:

The terminating structure should be designed as per the requirement of the cable end sealing, offered by bidder.

The mounting structure shall be of latticed GI suitably grouted to the ground.

After fixing the end termination, the cable shall be fixed to the support, with non-magnetic material clamps to the required height securely.

The mounting structure includes the supports for cable end boxes, link boxes and any other structure required for the intent of the contract.

All steel sections used shall be free from all imperfections, mill scales, slag intrusions, laminations, fillings, rust etc., which may impair their strength, durability and appearance. All materials shall be of tested quality only unless otherwise permitted by the Employer/JdVVNL . The Contractor shall fabricate, provide and install the structures.

19.3.29. TESTS AFTER INSTALLATION:

All tests as prescribed in Clause-6 of IEC-840 shall be performed after installation of cable. Following minimum tests shall be carried out:

Insulation Resistance of each cable drum length after paying but before jointing.

- a) Serving insulation resistance after laying each cable length shall withstand a voltage of 5 kV DC between each reinforcement and external conducting surface for one minute. In addition, the serving insulation resistance shall be measured and checked with the values obtained in the routine factory test.
- b) On completion of the cable laying and jointing work, the complete installation shall be tested with a D.C. / VLF voltage (high Voltage Test) as per IS 1255.
- c) Conductor resistance of each cable of each complete circuit shall be measured and compared with the values obtained during routine factory tests.
- d) Test for 5 minutes with system voltage applied between the conductor and the armour / screen earthed.
- e) Test for 24 hours with normal operating voltage of the system.

- Note:-**
- 1) Before laying the insulation value of the cable should be checked with megger as a preliminary check against any probable damage.
 - 2) After the cable is installed a D.C. voltage of 3kv passed through each core and against armour in case of LT cable. No breakdown should occur.

20.0 CONSTRUCTION PRACTICE FOR DISTRIBUTION TRANSFORMER SUB-STATION :

The contractor shall transport, install, test and commission Distribution Transformers.

The contractor shall survey the area, fix the location of DT keeping in view that DT is close to the centre of the area to be fed as practically possible. Contractor shall obtain the owner's approval for final DT location. The no. of LT feeders / service connections to be connected to a particular DT shall be decided during detailed physical survey and owner approval will be final.

The details of the work related to distribution transformer are given below: -

20.1 Earthing arrangement for transformer stations:

Earthing arrangement for DT shall be as per OUR construction standard earthing shall be used to earth LT neutral, LA and the DT body at each DT location. Thus three such pits shall be built for each transformer, the location of earth pits and for connections to various earth pits, the bidder shall furnish detailed earthing system drawing for the DT stations for review and approval. The earth resistance achieved shall be less than the stipulated value as per

the relevant codes of practice and shall be measured and recorded as per approved erection and commissioning procedures.

20.2 Electrical connections

The HT side connections shall be made with ACSR weasel conductor. LT side connections shall be made with LT XLPE AB cables. Cables glands of ISI marks shall be used for all the cable entries in distribution box. The contractor shall properly dress all the LT cables emanating from distribution box. The contractor shall provide all jointing material i.e. sleeves etc and carry out all jointing works. The cable ends shall be connected using adequate capacity aluminum lugs and shall be tightened using bimetallic brasses.

20.3 Protection and isolation

(a) HT side

The DTs shall be fitted with DO fuse cum isolators to protect and isolate transformer on HT side in case of over current and earth faults.

(b) LT side

Electric power from the transformer is drawn through the incomer MCCBs provided on LT side to protect the transformer from the faults occurring on LT system.

20.4 Connection from distribution Transformer to LT Cable

For extension of supply from Distribution box to overhead AB Cable/Insulated conductor the arrangement shall be as described below:

1. Bearer/Messenger wire of LT AB cable shall be anchored through dead end clamp arrangement on master pole which is at a distance of 5 meter from transformer DP.
2. Extra length of continuous cable along with messenger / bearer wire shall be properly dressed and taken in to MCCB, using bimetallic clamp of appropriate size / quality.

20.5 Distribution Line Locations:

20.5.1. The route selected for a distribution line shall be such that it will find the lowest cost considered over a period of years, consistent with accessibility for easy maintenance etc. This includes many considerations such as original cost, tree trimming, freedom from vehicular damages as far as possible, availability for future service.

20.5.2. The line should be routed whenever possible to avoid natural obstacles such as steep hills or valleys, swamps, lakes, thick forests, rivers etc. Lines should be located at a safe distance from buildings and from possible fire, proximity to traffic and other hazards, Lines shall not cross school playgrounds, cemetery, except under special circumstances, Lines should be away from the building containing explosives.

- 20.5.3.** Transportation cost constitute a major portion of the construction cost, As such, while finalizing the route alignment, it may be ensured that extra cost involved due to additional lead for transportation of the material should be as low as possible.

20.6 Right of way:

Considering the case of maintenance and avoiding the problems of right of way. It is always preferable to lay the distribution lines along the roads; this will not always be possible considering the cost involved due to the extra length of lines etc, in which case, the line will have to be run on private lands or property.

21.0 LINE CONSTRUCTION PRACTICES:

- 21.1** LT lines shall be constructed with three phase 3x50 + 1x35 sq.mm AB cable / Insulated ACSR Rabbit conductor. Support at each of the Pole as per the final line route to be decided based on survey. RSJ/H-beam, to be used for this purpose shall be of 8.0 meters height. Pole footing arrangement shall be identical to the other similar poles described in this specification.
- 21.2** For LT lines with cable, poles shall have Eye hook and suspension clamp arrangement for anchoring of bearer wire associated with ABC line.
- 21.3** For pole locations, where consumer connections are more than two (extended). ABC conductor shall be anchored on their bearer wire with suitable clamp or hook, arrangement. This clamp shall be similar to dead end type (anchor) clamps cable portion shall be terminated in and out of the distribution box (If any). The anchor arrangement to be provided on both sides of the pole to facilitate connection of AB Cable pole to the next pole of the line.
- 21.4** Locations, where single phase LT lines have to cross important through fare (Main road, HT line etc.) the line shall be on poles with horizontal configuration. These shall be as per REC construction standard drawing No. B-1 (guard wire with cross lacing) and clearances as per IE Rule. Suitable extension arrangement (pole top bracket) shall be provided to maintain the clearances and sags
- 21.5** For LT line, every 5th pole, starting pole, cut point pole and last pole shall be earthed by providing Earthing coil / Rod earthing.

22.0 RENOVATION OF DAMAGED SERVICE LINE & INSTALLATION OF METERS:

The contractor shall replace identified damaged service line of the consumers other than Below Poverty Line (BPL consumers) & agriculture pump consumers. The service line wire shall travel from service pole to the premises of the consumer with the provision of –

- i) Through distribution box (In case of L.T. line comprising of L.T. cable).
- ii) XLPE Insulated Armoured 4 sq.mm. (2 core) /6 sq.mm (4 core) cable.
- iii) Supporting GI wire 10 SWG.
- iv) Energy meter in the consumer premises at call bell location. *(Although the Energy Meters will be provided by JdVVNL)*

As far as possible the service connection shall be given from the pole of the LT line which is nearest to the consumer's premise.

The specific arrangement of service line renovation and installation of energy meters shall be finalized during detailed engineering.

23.0 ERECTION OF ADDITIONAL 11 KV BAY IN 33/11 KV SUB STATION:-

The erection of additional 11 kV bay in existing 33/11 kV sub station shall be done after finalization of route of 11 kV new feeders. The lay out for erection of gantry structure, VCB and related accessories shall be done as per the drawing attached with the bid document.

24.0 EARTHING OF 33/11 KV SUB-STATION

Value of earth resistance in 33/11 kv Sub-Station shall be less than 1.0 Ohm.

25.0 INCEPTION / FDS REPORT:

In order to ensure the better execution of the proposed work in a scientific and managerial way, the vendor shall furnish an inception report within 30 days of awarding the contract. The inception / FDS report shall contain the following:

- i. Detailed methodology / project report / modus operandi to be adopted to execute the contract.
- ii. Resources, T&P with list of man power to be deployed to execute the contract.
- iii. Detailed list of material required for successful execution of project.
- iv. Clearly spell-out the obligation to be completed for execution of the work.
- v. Detailed Functional design & specification of the equipments to be installed with GTP (Guaranteed Technical Particulars).
- vi. Testing procedure as per the relevant clause of the specification.
- vii. Detailed methodology of Training system to technical staff of Nigam for further maintain the system.
- viii. Break up of total time schedule allowed for completion of supply in GANTT CHART. The GANTT CHART shall include milestone of approval of types and makes.
- ix. Complete bill of material **(BOQ) of existing material to be retrieved off duly verified by the Nodal Officer / Engineer In-charge of the project.**

SECTION - V
TECHNICAL SPECIFICATION OF MATERIAL/ EQUIPMENT

**Technical Specification of Material/ Equipment uploaded
separately on www.eproc.rajasthan.gov.in**

SECTION-IV

PRE QUALIFICATION REQUIREMENT

Qualification of bidder will be based on meeting the minimum pass/fail criteria specified in Pre-qualifying criteria as demonstrated by the Bidder's responses in the corresponding Bid Schedules. The bidder shall also be required to meet the following qualification criteria.

Normally Subcontractors' technical experience and financial resources shall not be taken into account in determining the Bidder's compliance with the qualifying criteria. However, work experience of sub-contractor shall be considered into account in case where electrical part contract was totally executed by sub-contractor out of composite contract of civil & electrical work awarded to main contractor of whole facility by any of the power utility/ Govt. Deptt./ Govt. undertaking. In this regard, experience certificate must be issued to the subcontractor by the power utility/ Govt. Deptt./ Govt. undertaking.

The bid can be submitted by an Indian individual firm only or by Joint Venture firm having Indian partner firms only. A bidder cannot form JV with more than one firm, cyclic JV is not allowed. (The years referred in this section w.r.t 'Qualification of the Bidder' should be considered as Financial Year e.g. Last year should be FY 2021-22 ending 31st March 2022)

Notwithstanding anything stated herein above, the Employer reserves the right to assess the capacity and capability of the bidder, should the circumstances warrant such assessment in an overall interest of the Employer. The employer reserves the right to waive minor deviations if they do not materially affect the capability of the Bidder to perform the contract.

1.0 Pre-qualification criteria

1.01 Technical :-

- 1.01.1 The bidder should possess class "A/B/C" Electrical License issued by Electrical Inspectorate of Govt. of Rajasthan.
- 1.01.2 In case bidder is a distribution Licensee under Electricity Act 2003, contractor License is not required. In case bidder is a Distribution Franchisee under Electricity Act 2003 it should possess "A/B/C" Class Electrical License issued by Electrical Inspectorate of Govt. of Rajasthan.

1.01.3 In case bid submitted by joint venture firm, both the partner should possess "A/B/C" class electrical license issued by Electrical Inspectorate of Govt. of Rajasthan.

1.02 **Techno-Commercial :-**

Work Experience:-

1.02.1 For the purpose of this bid, the bidder shall meet the following requirements:

The bidder must have supplied, erected and satisfactorily executed turnkey works of in last 5 years from 2017-18 to 2021-22 (up to 31.03.2022) in any of the power utility/ Govt. Deptt./ Govt. undertaking :-

- a) of 11kV lines or higher voltage class, the cumulative value of which shall not be less than the 50% of estimated value.
- b) of 11kV Three /6.35 KV Single phase distribution Transformer upto 315 KVA rating, the cumulative value of which shall not be less than 50% of estimated KVA capacity mentioned in the BOQ.

Documentary proof against clause 1.02.1 (Bidder shall submit certificate issued by officer not below the rank of XEN duly dispatched from the concerned Office.

Turn over:-

1.02.2 Minimum Annual Turnover (MAT) in any one of last five financial years of the bidder should not be less than 50% of estimated project cost. Documentary proof against this shall be produced certificate from CA.

In case a bidder is quoting for more than one project in the bids, Pre-Qualification requirement for opening of price bid will be examined cumulative and sequentially lot/tender no. wise.

1.02.3 In case a bid is submitted by a Joint Venture (JV), both the partners of the JV shall meet, individually, the qualification set forth at Para 1.01 and collectively the requirement of para 1.02.1 & 1.02.2. The figures for each of the partner of the joint venture shall be added together to determine the bidder's compliance with the minimum qualifying criteria set out in para 1.02.1 & 1.02.2, however in order for a joint venture to qualify, the partner(s) of joint venture must meet the following minimum criteria:

- (a) Lead partner shall meet, not less than 40% of the criteria given at Para 1.02.1 (work experience) & 1.02.2 (MAT) above
AND
- (b) the other partner shall meet not less than 25% of the criteria given at Para 1.02.1 (work experience) & 1.02.2 (MAT) above.

- 1.02.4 Failure to comply with this requirement will result in rejection of the joint venture's bid.
- 1.02.5 Bids may also be submitted by joint venture firms (having not more than two partners with one partner as lead partner). One of the partners shall be nominated as lead partner, and the lead partner shall be authorized to incur liabilities and receive instruction for and on behalf of any and all partners of the joint venture and the entire execution of the contract including receipt of payment shall be done exclusively through the lead partner. This authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners as per prescribed proforma.
- 1.02.6 Both partner of the joint venture shall be liable jointly and severally for the execution of the contract in accordance with the contract terms and a copy of the agreement entered into by the joint venture partners having such a provision shall be submitted with the bid.
- 1.02.7 A statement to this effect shall be included in the authorization mentioned under para1.02.5 above as well as in the Bid Form and in the Contract Form (in case of a successful bid);

In case of JV, legal agreement executed between partners of JV to be furnished along with bid.

Note:-1. Maximum participation shall be limited to two lots/tenders.

2. Only turnkey contractors can participate in the bids/Lots.

2.0 Litigation History:

The bidder should provide detailed information on any litigation or arbitration arising out of contracts completed or under execution by it over the last five years. A consistent history of awards involving litigation against the Bidder or any partner of JV may result in rejection of Bid.

- 2.01 Notwithstanding anything stated hereinabove, the Employer reserves the right to assess the capacity and capability of the bidder, should the circumstances warrant such assessment in an overall interest of the Employer. The Employer reserves the right to waive minor deviations if they do not materially affect the capability of the Bidder to perform the contract.
- 2.02 The bidder must not be blacklisted/ debarred/ under business relation severed by any State/Central Govt./PSU/ Power utilities on the date of bid submission. The bidder should provide an undertaking (self-certificate) in prescribed format

in this regard. In case of JV, the above provision shall be applied for all JV partners.

3.0 OTHER CONDITIONS:

- i) Each up-Loaded paper/documents should be self-attested duly sealed & Signed by the bidders.
- ii) The conditional bids shall not be considered. If false/ fraud is found in the submitted documents then bidder shall be held solely responsible for this & action shall be taken against the bidder as per provision of GCC/Act/Contractual obligations.

THE OFFERS OF BIDDERS NOT SATISFYING THE ABOVE "BID QUALIFICATION REQUIREMENTS" SHALL BE REJECTED.

SECTION- VI
(Schedule & Forms)

BID PROPOSAL FORM

Bid Proposal form for the works of “Supply, erection, installation and commissioning of material/ equipment for the work of release of AG connection in FY 2022-23 on turnkey basis in respect of various Circle under the domain of Jodhpur Discom against TNTW-613 to TNTW-624”.

To,

The Superintending Engineer (TW),

Jodhpur Vidyut Vitran Nigam Limited,

Jodhpur.

Dear Sir,

With reference to your invitation for bids against Package No. **JdVVNL/SE (TW)/TNTW-613 to 624** we agree for execution of electrical work for Supply, erection, testing & commissioning on turn-key basis of bidding documents **downloaded** by us on prices, terms & conditions mentioned hereunder, **for TNTW-_____**(mention lot/tender no.):-

1. The prices as mentioned in **under Section-V of “G -Schedule of prices / Rates”** (furnished in separate cover-III to be filled online) **“PRICE BID”** are **“FIRM” in all respect.**
2. The prices quoted are valid for a period of 90 days from the date of opening of “techno-commercial bids and 70 days from the date of opening of price bid whichever is later.
 - (a) **GST** shall be inclusive in quoted prices for Labour/ Erection work.
 - (b) Other new taxes if any, subsequent to bid opening **shall be payable extra at the applicable rates within contractual completion/extended period only.**
3. Any statutory variation in the taxes during contracted completion period shall be to Nigam’s account.
4. We have noted the standard terms of payment and undertake to abide by the same.
5. We have also noted that conditional offers shall be rejected.
6. We have also noted that erection losses are not admissible as these works are on total electrical in nature.
7. The erection work shall strictly be in accordance with **work completion schedule as given in the Schedule-4.** In case we fail to complete the work as indicated therein we shall pay recovery as per “Delay in execution” clause of the specification.
8. We shall carry out the work as per the norms of safety, clearances prescribed in IEA, Rules & Codes etc.
9. We confirm that we agree to adhere to all the commercial terms & conditions as well as the technical stipulation of your Package No. **JdVVNL/SE (TW)/TNTW-613 to 624** and there is no deviation. Such acceptance has also been **confirmed** in prescribed **Schedule** enclosed herewith. We confirm that we are qualified for bidding in terms of Qualification Requirements

specified in the bidding documents and have submitted the requisite qualification Certificate & data/ documents with the bid.

10. The fact of submission of bid to the JdVVNL shall be deemed to constitute an agreement between the bidder and SE (TW) whereby such bid shall remain open for acceptance by the JdVVNL and Bidder shall not have option to withdraw his offer, impair or derogate the same. If the Bidder is notified during the period of validity of bid that his bid is accepted by the JdVVNL, he shall be bound by the terms of agreement constituted by his bid and such acceptance thereof by the JdVVNL, until formal contract of the same bid has been executed between him and the JdVVNL in replacement of such agreement.
11. We understand that you are not bound to accept the lowest or any bid you may receive.

Encl:-Schedule- 1 to 11 along with supporting documents.

Yours faithfully,

Place:

Date:

Signature

Name & Designation with seal of the firm

Commercial Terms & Conditions

Bidder's Name & Address:

To,

**The Superintending Engineer (TW),
Jodhpur Vidyut Vitran Nigam Limited
Jodhpur - 342003**

Sub: Confirmation for **"No Deviation"** in Commercial terms & conditions of package No. JdVVNL/SE (TW)/TNTW-613 to 624

Dear Sir,

We hereby confirm that there is no deviation in commercial terms & conditions stipulated in the bidding documents and we are agreed to adhere the same strictly.

Yours faithfully,

(Signature).....

Date :

Place :

(Name).....

(Designation).....

(Common Seal).....

Technical Terms & Conditions

Bidder's Name & Address:

To,

**The Superintending Engineer (TW),
Jodhpur Vidyut Vitran Nigam Limited
Jodhpur - 342003**

Sub : Confirmation for **“No Deviation”** in Technical terms & conditions of package No. JdVVNL/SE (TW)/TNTW-613 to 624

Dear Sir,

We hereby confirm that there is no deviation in technical terms & conditions stipulated in the bidding documents and we are agreed to adhere the same strictly.

We also confirm that tendered material shall be procured from vendors approved by **JdVVNL** and shall be conforming to various requirements of relevant ISS / Specification / orders and as per design and drawing approved by the Nigam.

Yours faithfully,

(Signature)

Date :

Place :

(Name)

(Designation)

(Common Seal).....

Qualification Requirements Details

Bidder's Name & Address:

To
The Superintending Engineer (TW),
Jodhpur Vidyut Vitran Nigam Limited,
Jodhpur – 342003

Dear Sir(s),

We hereby declare that we are qualified for bidding in reference to “**Qualification Requirements**” of the bidding documents **No. JdVVNL/SE (TW)/TNTW-_____** and submit the following certificate(s) /documents in support of the above :-

- 1.
- 2.
- 3.

Note:

1. Furnishing of a certificate issued by a registered chartered Accountant certifying fulfilment of specified qualification requirements is essential. The name, stamp and the registration no. of the Chartered Accountant are necessary of the Certificate.
2. Copy of Valid Contractor License.

Date:

Place:

**Name & Designation
(withseal of the firm)**

Qualification Requirements Details

Bidder's Name & Address:

Work experience-A:- The bidder must have supplied, erected and satisfactorily executed turnkey works of 11kV lines or higher voltage class, the cumulative value of which shall not be less than the 50% of estimated value in last 5 years from 2017-18 to 2021-22 (up to 31.03.2022) in any of the power utility/ Govt. Deptt./ Govt. undertaking.

Details of Works Executed during last five financial years

(2017-18 to 2021-22)

Order Awarding	Description of Work	Work order		Stipulated completion Period	Date of commencement	Date of actual completion	Value of work actually executed (as per completion certificate) during last Five financial Year in Rs. Lacs.	Remarks
		No. & Date	Amount (Rs.inlacs)				2017-18 to 2021-22	
TOTAL:								

Note:

- (1) Copy of each work order, G-schedule & completion report been closed.
- (2) Completion report must be certified by a technical officer only, as per cl.No.1(c)(iii) of Qualification Requirement and should also be duly attested by Notary Public/self attested and sealed by the bidder
- (3) Furnishing of the completion report of works executed specially indicating the amount thereof, inessential the qualification of the bidder shall be determined on this basis. The Work experience shall not be counted on account of non-furnishing of such documents.
- (4) The above details shall also be certified by the Chartered Accountant with their membership No.

Date: (Signature).....

Place: (Name).....

Designation.....

(Common Seal).....

SCHEDULE – 3 (C)**Qualification Requirements**

Work experience-B:- The bidder must have supplied, erected and satisfactorily executed turnkey works 11kV Three /6.35 KV Single phase distribution Transformer upto 315 KVA rating, the cumulative value of which shall not be less than 50% of estimated KVA capacity mentioned in the BOQ in last 5 years from 2017-18 to 2021-22 (up to 31.03.2022) in any of the power utility/ Govt. Deptt./ Govt. undertaking.

11kV Three /6.35 KV Single phase distribution Transformer upto 315 KVA rating_supplied, erected and satisfactorily executed turnkey works **during last five years 2017-18 to 2021-22**

S.No.	Name of Organization	Description of work	Work order		Stipulated completion period	Date of Commencement
			No. & Date	Amount (Rs. In lacs)		
1		2	3	4	5	6
	Total					

Note :-

Date of completion	11kV Three /6.35 KV Single phase distribution Transformer upto 315 KVA rating.		Total KVA supplied, erected and satisfactorily installed (in KVA)	Remark
	Rating of DT in KVA	Nos. of transformers supplied, erected and satisfactorily installed.		
7	8	9		10

1. Copy of each work order, G-Schedule & completion report be enclosed.
2. Completion report must be certified by an technical officer only, not below the rank of Executive Engineer and should also be duly attested by Notary Public.
3. Furnishing of the completion report of each of work executed specially indicating the amount, thereof is essential as the qualification of the bidder shall be determined on this basis. The work experience shall not be counted in case of non-furnishing of such documents.

Date :-

Place :-

Signature

Name _____

Designation _____

Common Seal

Work Completion Schedule

Bidder's Name & Address:

To
The Superintending Engineer (TW),
Jodhpur Vidyut Vitran Nigam Limited,
Jodhpur – 342003

Dear Sir(s),

We hereby declare that the following Work Completion Schedule shall be followed by us in Supply , erection , Testing and commissioning the material/equipment's for works as detailed in the "SCHEDULE-G" under Section-V of package. **JdVVNL/SE (TW)/TNTW-_____**

S. No.	Stage	Period in months
1	Commencement	The execution of work shall be commenced within 15 days after issue of work order.
2	Completion of supply, erection, testing and commissioning of ordered work.	Within 9 months thereafter, at equal quarterly rate of Nos. of connections to be released.

Date:
Place:

(Signature).....
 (Name).....
 (Designation).....
 (Common Seal).....

Qualification Requirements

(Tender No. JdVVNL/SE (TW)/TNTW-613 to 624)

Details of Financial Aspects during last five financial years (2017-18, 2018-19, 2019-20, 2020-21 & 2021-22)**Bidder's Name & Address:**

To
 The Superintending Engineer (TW)
 Jodhpur Vidyut Vitran Nigam Limited
 New Power House, Jodhpur
 JODHPUR - 342003

Dear Sirs,

We hereby declare that we are qualified for bidding in reference to "Qualification Requirements" indicated in Sec.III of the bidding documents as per details given here under:

S.No	PARTICULARS	DETAILS	
1	Turn Over	(In Rs. only)	
		2017-18	
		2018-19	
		2019-20	
		2020-21	
		2021-22	

and submitting the following certificate(s) /documents in support of the above: -

1. Copy of Valid Contractor License.
2. Copy of registration with JODHPUR -Discom, if registered.
3. Copies of Audited Balance Sheet pertaining to last five years. However, if audited accounts are not available for the FY 2021-22 self certified copies of unaudited accounts shall be submitted.
4. Furnishing of a certificate issued by a Practicing Chartered Accountant certifying of specified qualification requirements is essential. The name, stamp and the registration no. of the Chartered Accountant are necessary of the certificate along with UDIN.

Place:

Name: _____

Date:

Designation: _____

Signature: _____

Name & Seal of Chartered Accountant

Firm Name

FRN No.
UDIN No.

List of Equipment's and Technical Hands

Bidder's Name & Address:

To

**The Superintending Engineer (TW),
Jodhpur Vidyut Vitran Nigam Limited,
Jodhpur – 342003**

Dear Sir(s),

We hereby declare that we have sufficient men & machinery for successful execution of electrical work against this bid enquiry, the details of which are given as under:-

.

Date: (Signature).....
Place: (Name).....
(Designation).....
(Common Seal).....

CHECKLIST FOR COMMERCIAL TERMS.**(TO BE PROVIDED IN "COMMERCIAL AND TECHNICAL BID")**

Sl.No.	Particulars	Bidder's response
1.	BID SECURITY: (i) Amount (ii) Mode of payment	Rs.----- Bank Draft / Banker's cheque
2.	Whether the offer is valid for a period of 90 (Ninety) days from the date of opening of commercial/Technical bids	Yes / No
3.	PRICE: i) Whether quoted FIRM price valid for the entire contract period and GST if applicable.	Yes / No

DATE :**PLACE:****SIGNATURE OF THE BIDDER****NAME :****STATUS IN THE COMPANY
(AFFIX SEAL OF THE
COMPANY)**

Confirmation/ declaration regarding GST or any other Taxes

Bidder's Name & Address:

To,

**The Superintending Engineer (TW),
Jodhpur Vidyut Vitran Nigam Limited
Jodhpur - 342003**

**Sub : Confirmation/ declaration regarding GST, or any other Taxes_of
package No. JdVVNL/SE (TW)/TNTW-_____**

Dear Sir,

We hereby confirm that the quoted prices of erection of material/ equipment under package No. **JdVVNL/SE (TW)/TNTW-_____** are inclusive of GST & including freight & insurance charges and also inclusive of all type of required local transportation from and to JdVVNL stores to temporary storage/ site as per the various provisions of the bidding document.

Yours faithfully,

(Signature)

Date :

Place :

(Name)

(Designation)

(Common Seal).....

CHECKLIST FOR TECHNICAL TERMS.
(TO BE PROVIDED IN "COMMERCIAL AND TECHNICAL BID")

Sl. No.	Particulars	Bidder's Response
1.	i) Whether the equipment offered is exactly as per technical specification of the DISCOM ii) If not, give details of technical deviation in the deviation schedule 2	Yes / No
2.	a) Whether the tendered equipment is type tested as per the specification of the DISCOM	Yes / No

DATE :

SIGNATURE OF THE BIDDER

PLACE:

NAME :

STATUS IN THE COMPANY (AFFIX SEAL OF THE COMPANY)

Confirmation/ declaration regarding type test & GTP and Manufactures Authorization of various items

Bidder's Name & Address:

To,
The Superintending Engineer (TW),
Jodhpur Vidyut Vitran Nigam Limited,
New Power House,
Jodhpur – 342003

Sub : Confirmation/ declaration regarding type test & GTP and Manufactures Authorization of various items of package No. **JdVVNL/SE (TW)/TNTW-_____**

Dear Sir,

We hereby confirm that in the event of award of placed upon us under package No. **JdVVNL/SE (TW)/TNTW-_____**. we shall furnish the type test reports, GTP and manufacturers authorization of various equipments/ items covered & confirming to aforesaid bidding document with the proposal for approval of sub-vendors with the inception report as stipulated in the bidding document.

Yours faithfully,

(Signature)

Date :

Place :

(Name)

(Designation)

(Common Seal).....

Self-Declaration of non-Blacklisting/Debarment/Business relation severement etc. on Rajasthan Non-Judicial Stamp Paper worth Rs.500/ by bidders

To,

The Superintending Engineer (TW),
Jodhpur Vidyut Vitran Nigam Limited,
Jodhpur - 342003

In reference to the tender ref. no.....dated... as
an owner/partner/director
of..... I/We hereby
declared that our company/firmis not insolvent, not
in receivership, not bankrupt or being wound up, have not affairs administered by
a court or a judicial officers, have not business activities suspended, have not
been blacklisted or debarred by any utility/government agency, have not a
conflict of interest on the date of bid submission.

If this declaration found to be incorrect then without prejudice to any other
action that may be taken, my/our security may be forfeited in full & the tender if
any to the extend accepted may be cancelled.

Thanking you,

Yours faithfully,

(Signature).....

Date :

Place :

(Name).....

(Designation).....

(Common Seal).....

Bid Bank Guarantee (FOR EARNEST MONEY)

(Bank Guarantee in lieu of 80% of earnest money) on non-judicial stamp papers of Rajasthan State worth 0.25 % of BG value & max. upto Rs. 25,000/- whichever is less.

Ref : Bank Guarantee No. Dated:

Superintending Engineer (TW)

Jodhpur Vidyut Vitran Nigam Limited,

Jodhpur

1. Whereas[name of the Bidder] (hereinafter called “the Bidder”) has submitted its bid dated[date of submission of bid] for the construction of..... [name of contract] (hereinafter called “the Bid”).
2. KNOW ALL PEOPLE by these presents that we..... [name of bank] of[name of country], having our registered office at..... [Address of bank] (hereinafter called “the Bank”), are bound unto..... [name of Purchaser] (hereinafter called “the Purchaser”) in the sum of Rs.*_____ for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this ___ day of _____ 200__.
3. THE CONDITIONS of this obligation are:
 - i. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder in the Bid Form; or
 - ii. If the bidder refuses to accept the correction of error in his Bid ; or
 - iii. 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 agreement, if required; or
 - (b) fails or refuses to furnish the performance security, in accordance with the General Conditions of Contract;
4. we undertake and authorize our branch situated at Ajmer (Rajasthan) address: _____ to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or all of the three conditions, specifying the occurred condition or conditions.
5. The decision of the SUPERINTENDING ENGINEER (TW), JODHPUR VIDYUT VITRAN NIGAM LIMITED, JODHPUR shall be final whether breach has been committed on the right to demand the amount of guarantee from us which has accrued to the purchaser.
6. This guarantee shall not cease or determine, if the purchaser grants time or indulgence or vary the terms of the contract with the contractor or without our consent or knowledge.
7. The guarantee herein contained shall not be affected by any change in the constitution of the contractor.
8. We, _____ further undertake not to evoke this guarantee during its currency except with the previous consent of the SUPERINTENDING ENGINEER (TW), JODHPUR VIDYUT VITRAN NIGAM LIMITED, JODHPUR.
9. All disputes arising under the said guarantee between the Bank and the Nigam or

between the Contractor and the Nigam pertaining to the guarantee, shall be subject to the jurisdiction of Courts in Jodhpur, Rajasthan alone.

10. This guarantee will remain in force up to the bid validity period initially plus 30 day grace period and further extendable till finalization of bid.

Yours faithfully,

Bankers (EXECUTANT)

Witness:-1.

2.

- The Bidder should insert the amount of the guarantee in words and figures denominated in the currency of bid.

Annexure – B (ITB-Section-I)

Bank Guarantee verification checklist

	CHECK – LIST	Yes	No
1.	Does the bank guarantee compare verbatim with standard Performa for BG		
2.(a)	Has the executing Officer of BG indicated his name designation & power of Attorney No. / Signing power Number etc. on BG.		
(b)	Is each page of BG duly Signed/ initialed by the executants and last page is signed with full particulars as required in the standard Performa of BG and under the seal of the bank.		
©	Does the last page of the BG carry the signatures of two witnesses alongside the signature of the executing Bank Manager		
3. (a)	Is the BG on non-judicial stamp paper of appropriate value		
(b)	Is the date of sale of non-judicial stamp paper shown on the BG and the stamp paper is issued not more than Six months prior to the date of execution of BG.		
4.(a)	Are the factual details such as Bid specification No., LOA NO. Contract price, etc, correct.		
(b)	Whether Overwriting /cutting, if any on the BG, authenticated under signature & seal of executants		
5.	Is the amount and validity of BG is inline with contract provisions		
6.	Whether the BG has been issued by a Nationalized bank / Non-Nationalized Bank acceptable to Buyer /Scheduled Bank in India (the applicability of the bank should be in line with the provisions of bidding documents)		
7.	In case of Joint Venture bid, whether the B.G. is in the name of Joint Venture as per provisions of bidding documents.		

Yours faithfully,

(Signature).....

(Name).....

Date :

(Designation).....

Place :

(Common Seal).....