

# **JAIPUR VIDYUT VITRAN NIGAM LIMITED**



## **BIDDING DOCUMENT FOR**

**LAYING OF 11 KV UNDERGROUND CABLE FOR  
SHIFTING 11 KV FEEDER 1,2,3,4,5,6,8 EMANATING  
FROM 132 KV GSS VKIA TO 33/11 KV S/s ROAD NO 5  
VKIA IN THE AREA OF AEN (HTM-VII) ON ARC UNDER  
TN-04 IN THE JURISDICTION OF JAIPUR CITY CIRCLE  
OF JAIPUR DISCOM.**

**PACKAGE NO. JPD /ZCE(J/Z)/JVVNL/TN-04**

**ZONAL CHIEF ENGINEER(O&M-J/Z)  
JAIPUR VIDYUT VITRAN NIGAM LIMITED  
OLD POWER HOUSE, BANI PARK, JAIPUR-302006  
TELEPHONE NO. 0141-2202403  
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**Bid Cost: Rs. 2500+ Rs.450(GST) = Rs. 2950/-**

# JAIPUR VIDYUT VITRAN NIGAM LIMITED



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## **SECTION-I**

### **INSTRUCTION TO BIDDERS (ITB)**

#### **1.0 GENERAL INSTRUCTIONS**

The Jaipur 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 Zonal Chief Engineer(O&M-J/Z), JVVNL, Jaipur 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 commissioning and erection & commissioning of equipment including the successful completion of performance and guarantee tests which the owner desires to get executed.

#### **2.0 INTRODUCTION OF WORK:**

**Jaipur Vidyut Vitran Nigam Limited intends for Erection, Laying, Testing and Commissioning of proposed work on ARC basis against TN- 04 for which no material required for execution shall be provided by JVVNL.**

- 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 erection activities specified under the accompanying technical specification.

#### **3.0 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.

#### **4.0 SUBMISSION OF BIDS:**

The bidders, in their own interest, are requested to read very carefully Section-I (Instruction to bidders), Section-II (General Conditions of Contract), Section-III Part-IA & IB (Erection Condition of Contract), section-IV(PQR) & Schedules I to IX before filling the bid. The Bid documents be downloaded from JVVNL website [www.energy.rajasthan.gov.in](http://www.energy.rajasthan.gov.in) or <http://eproc.rajasthan.gov.in> and upload the Bid on website of RISL [www.http://eproc.rajasthan.gov.in/](http://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 DECLARATION & 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.

4.1 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).

4.2 No alteration shall be allowed in format of the Bid specification and schedules. The bidder must comply entirely with specification.

4.3 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.

4.4 Bid should be filled in only with ink or typed and must be submitted online after signing digitally.

4.5 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.

4.6 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.

4.7 Nigam will not be responsible to accept any cost involved in the preparation or submission of bids.

4.8 Any printed conditions of sale on the bid shall not be accepted by Nigam.

4.9 The Bid offer shall be submitted in time specified on <http://eproc.rajasthan.gov.in>, in electronic format in the prescribed manner:

4.10 All bids and accompanying documents shall be addressed to the Zonal Chief Engineer (O&M-JZ), Jaipur Vidyut Vitran Nigam Limited, Jaipur.

4.11 The bidder should sign the Bid documents digitally and stamped on each page with self-attestation.

4.12 The Bids given in the form other than prescribed form will not be considered.

4.13 The conditional bids shall not be accepted.

#### **5.0 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 DECLARATION / Bid E-processing fee and Cost of Bid document as detailed below:
  - i. Proof of depositing BID DECLARATION (DD/Banker's Cheque)
  - ii. Electrical contractor registration certificate of Central Govt. /State Govt. / State Undertaking/ Power Utilities.
  - 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. Copy of class “**AB**” Electrical contractor license issued by Government of Rajasthan.
  - xi. Copy of registration with labour department.
  - xii. Power of Attorney on Non-Judicial Stamp Paper of Rs.500/-for authorized signatory to sign the Bid document digitally.
  - xiii. 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.

## **6.0 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 Equipments and materials, which may be required for the purpose of erection of equipment and materials supplied by Nigam under the contract.
- 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.

### **6.1 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 Zonal Chief Engineer (O&M-JZ), JVVNL, Jaipur 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 and 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).

#### **6.2 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.

#### **7.0 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.

#### **8.0 BID SECURITY DECLARATION:**

- i. The bidders shall submit the bid security declaration at the time of submitting the bid on Rajasthan Non-Judicial stamp paper @Rs.50/- with 30% surcharge as per rules in enclosed performa. The bidder shall submit bid security declaration upto 2.00PM of one day prior to the date of opening of bid in the office of AO(JCC), Jaipur Discom, Jaipur and photocopy of the same will be uploaded along with the bid.

- ii. No other mode such as Postal orders/ cheques / BG forms of instruments is acceptable.
- iii. In case of unsuccessful bidder, the Bid Security Declaration will be refundable on production of the original receipt within a fortnight after finalization of the Bid. In case of successful bidder(s) the Bid Security Declaration 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 DECLARATION will be released consequent to acceptance of such BG.
- iv. The Bid security declaration of unsuccessful bidders shall be refunded soon after final acceptance of successful bidder & signing of agreement and submitting performance security.
- v. Request for adjustments/proposals for acceptance of Bid security declaration deposit, if any, already lying with the Discom in connection with some other Bids/orders shall not be entertained.
- vi. No interest shall be payable on such Deposits.
- vii. The Bid security declaration 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.

**9.0 COST OF SPECIFICATION:**

**The cost of Bid document as published in NIT shall be furnished along with BID SECURITY DECLARATION & 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 DECLARATION shall be furnished through Bank Draft payable to ACCOUNTS OFFICER (JCC), JPD, JAIPUR.**

**10.0 LATE BIDS:**

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

#### **11.0 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.

#### **12.0 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.

#### **13.0 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.

#### **14.0 SIGNING OF AGREEMENT:**

The successful bidder shall, on receipt of Letter of Award from Zonal Chief Engineer (O&M-JZ), JVVNL, Jaipur enter into a contract with Concern circle SE(O&M) by jointly signing an agreement. The draft of the agreement based on the terms sheet, detaile

d in Section-II shall be forwarded to the successful bidder for execution. The agreement shall be executed within fifteen days thereafter. The person to sign the agreement shall be duly authorized by the Bidder.

#### **15.0 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.

## **16.0 TAXES**

16.1 GST if applicable shall be paid extra on production of documentary evidence. The Goods and Service Tax (GST) if applicable in respect of the transaction between the owner and the contractor under the contract on the date of opening of bids (techno-commercial) shall be treated as included in the bid price and no additional payment on this account shall be paid by the Nigam.

16.2 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.

16.3 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 contract.

16.4 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.

## **17 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.

## **18 PRELIMINARY EXAMINATION AND EVALUATION:**

18.1 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.

18.2 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.

18.3 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.

18.4 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.

18.5 Bid price shall mean the price evaluated on the basis of cost of G-Schedule.

18.6 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.

18.7 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.

## **19 AWARD OF CONTRACT**

19.1 Notification of award of contract (LOI) will be made in writing to the successful bidder(s) by the owner.

19.2 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.

19.3 In case of non-satisfactory achievement of rates from lowest or most advantageous bidder, the competent committee may choose to make a written counter offer to the lowest or most advantageous bidder & 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 accept the counter offer.

**20. Note:**

20.1 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.

20.2. Furnishing of Bid Security Declaration Deposit /Registration certificate/ Contractor electrical license issued by Govt. of Rajasthan proof for deposit of Bid Security Declaration, 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.

20.3 (i) The bidder will have to deposit prescribed cost of Bid specification by DD/Banker's Cheque payable in favour of **ACCOUNTS OFFICER (JCC), JPD, JAIPUR** up to stipulated date & time in the office of the AO(JCC), JPD, Jaipur.

(ii)The bidder will have to deposit prescribed BID SECURITY DECLARATION as per clause no.8 of ITB by DD/Banker's Cheque payable in favour of **ACCOUNTS OFFICER (JCC), JPD, JAIPUR** up to stipulated date & time in the office of the AO(JCC),JPD, Jaipur. **The bidder shall ensure that as per the uploaded letter, the B.G. submitted against Vendor Registration is valid on the date of Bid opening.**

(iii) The bidder will have to deposit prescribed E – Processing Fee of Rs. 1000/ +-GST by DD/Banker's Cheque in favour of Managing Director, RISL, payable at Jaipur with **AO(JCC), JPD, Jaipur** up to stipulated date & time in the office of AO (JCC), JVVNL, Jaipur .

20.4 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.

20.5 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.

20.6 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.

20.7 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.

20.8 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 [www.energy.rajasthan.gov.in/jvvn](http://www.energy.rajasthan.gov.in/jvvn) and are to be submitted online in electronic format **only** on website <http://eproc.rajasthan.gov.in>.

20.9 The bidders who are interested in bidding can download Bid documents from <http://eproc.rajasthan.gov.in> up to the stipulated date & time.

20.10 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](http://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](mailto:eproc@rajasthan.gov.in) Address: e-Procurement Cell, RISL, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur.

20.11 Bidder shall submit their offer online in electronic formats both for technical and financial proposals. However, cost of specification and BID DECLARATION in favour of **ACCOUNTS OFFICER (JCC), JPD, JAIPUR** up to stipulated date & time in the office of the AO (JCC) , **JPD, Jaipur** and processing fees in the office of AO(JCC), **JPD, Jaipur** , up to stipulated date & time. The bidder shall upload scanned copies of DDs / acknowledgement of above fee documents along with their online bid.

20.12 Bidders are also advised to refer “Bidders Manual” available under “Downloads” section for further details about the e-Bidding process.

20.13 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.

21. **GENERAL:**

21.1 Purchase of a copy of this specification by the bidder is essential for the consideration of his Bid. Only one Bid will be accepted against each copy of the specification purchased. This specification is not transferable. The cost of specification will not be refunded under any circumstances.

21.2 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.

21.3 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.

21.4 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.

21.5 The successful Bidder shall have to execute the contract agreement with concern circle Superintending Engineer (O&M) 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:

- **Amend the scope of the proposed contract.**
- **Reject or accept any bid.**
- **Cancel the bid process and reject all applications.**
- **Vary the area.**

**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.**

# JAIPUR VIDYUT VITRAN JVVNL LIMITED

OFFICE OF THE ZONAL CHIEF ENGINEER (O&M-JZ)  
OLD POWER HOUSE, NEAR RAM MANDIR, BANI PARK, JAIPUR

## GENERAL CONDITIONS OF CONTRACT (GCC) FOR AWARDING CONTRACT ON ARC FOR ELECTRICAL WORKS

### SECTION - II

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 JVVNL. 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.

#### **1.0 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 JVVNL represented by Managing Director and shall include there legal personnel representative, successors and assignees. The “JVVNL,” “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, JVVNL
- 1.6 The “Engineer” shall mean the Zonal Chief Engineer, Add. C.E., Superintending Engineer or other Engineer or officer of JVVNL 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 “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.

1.8 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 Declaration.
- 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.

1.9 The “Specification” shall mean the specification, specific conditions annexed to the general conditions, the contract and the schedule thereto, if any.

1.10 The “Month” shall mean, English Calendar month i.e. period of thirty days and “Week” shall mean a period of 7 days.

1.11 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.

1.12 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.

1.13 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.

1.14 “Letter of Intent” shall mean the purchaser letter conveying his acceptance of the bid subject to such reservations as may have been stated therein.

1.15 The “Contract Price” shall mean the sum named in or calculated in accordance with the provision of the contract /purchase or any amendments thereto.

1.16 “Formal Work Order” shall mean the purchaser’s letter which may be issued containing detailed terms and conditions of the E r e c t i o n W o r k s .

1.17 “Writing” shall include any manuscript, type written or printed statement under or over signature or seal, as the case may be.

1.18 The “Work Codes” shall mean the Indian Boiler Regulation & the rules made there under applicable on date of letter of intent with such special modification which may be agreed upon by the Chief Inspector of Boiler, Rajasthan from time to time. It shall also include 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.

1.19 Words importing "Person" shall include firms, companies, corporations and other bodies whether incorporated or not.

1.20 Words importing the "Singular" only shall also include the plural and vice versa where the context requires.

1.21 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 concerned circle Superintending Engineer for the entire works & work order to be executed under the contract. The same shall be furnish on Rajasthan non – judicial stamp paper worth 0.25 % of contract value. 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 obligation 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 respective circle Accounts Officer.

## **5. ACCEPTANCE OF CONTRACT:**

The successful bidder shall intimate the acceptance of contract 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. MATERIAL FOR EXECUTION OF WORK:**

The material for execution of work as per work order shall arrange by concerned circle SE (O&M) through concerned Asstt. Engineer (O&M) time to

time as per requirement of site on the request of contractor through proper channel.

However, small items such as M.S. Nut & Bolt, P.G. clamps, Lugs and Termination kit etc. may be purchased by the contractor for the urgent work after getting non-availability certificate from the concerning sub-divisional store & ACOS. The payment of such items shall be made by JVVNL as per prevailing SIR rate of that material used at site after submitting the bill/voucher of the procured material from the market and duly verified by the Engineer-in-charge/ supervisor.

#### **11. 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.

#### **12. 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.

#### **13. 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 JVVNL 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 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 13(a) shall be made from the cash deposits/dues of the firm or by operating the Bank Guarantees as may be available with the JVVNL 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.

#### **14. QUANTITY VARIATION :**

It is clarified that variations in quantity excess over G-schedule shall be limited to (+/-) 20 % for the individual items. The same shall be approved by the authority as per Delegation of Power (DOP).

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 circumstance, the bidder shall not be entitled for any claim or compensation except otherwise provide in the bidding documents.

#### **15. MAINTENANCE OF FACILITIES AND PERSONNEL:**

##### **15.1 FACILITY:**

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

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

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

##### **15.2 PERSONNEL:**

15.2.1 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.

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

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

15.2.4 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 central labour (R&A) act 1970. JVVNL has right to verify the above at any time.

**16. NODAL OFFICER/ENGINEER –IN CHARGE & SUPERVISING OFFICER:**

- a) To interact between the field offices and contractor, the concerned Superintending Engineer (O&M), JVVNL, will be the Nodal Officer of the project.
- b) The concerned Executive Engineer (O&V) 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.

**17. Bill Verification :-**

The concerned circle Account Officer 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 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.

**18. 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 13 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 JVVNL 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 JVVNL 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.

**19. SUSPENSION OF WORKS :**

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

**20. INSPECTION AND TESTING**

- a) The Engineer and his duly authorized representative shall have at all reasonable times access to the contractors stores & work sites and shall have the power at all reasonable time to inspect drawing of any portion of the work or examine the materials and workmanship.
- b) The engineer 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 any drawing and all or any plant, or workmanship connected with such work which in his opinion are not in accordance with the contract or are in his opinion, defective for any reason whatsoever.

**21. INSURANCE:**

**a) STORAGE-CUM WORKS INSURANCE**

All the materials supplied by the owner for the erection works shall be kept insured by the contractor against loss, damage, theft, pilferage, fire etc. for the complete period of transit / storage, erection and commissioning upto the time of taking over the work by the owner. The insurance shall be in joint names of the JVVNL & contractor so that the JVVNL and the contractor are covered for the entire period of contract from the commencement of the contractor till handing over all the works completed in all respect to the JVVNL's engineer in -charge. It will be responsibility of the contractor to lodge, peruse and settle all claims for (all the materials, supplied by owner) with the insurance company in case of any damage, loss, theft, pilferage or fire and the owner shall be kept informed about it. The losses, if any, will have to be borne by the contractor if the claims are not settled by the insurance company. The contractor shall replace the lost / damage materials promptly irrespective of the settlement of the claims by the underwriters and ensure that the work progress as per the agreed schedule(s).

**b) THIRD PARTY INSURANCE:-**

The contractor shall accept in so far as the contractor provides indemnify the

JVVNL 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 JVVNL or to any person including any employee of the JVVNL by or arising out of the execution of the works are in carrying out of the contract.

**c) 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 JVVNL 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 JVVNL, as aforesaid from any money due or which may become due to the contractor or recover the same as debt from the contractor.

**22. EMPLOYEE'S COMPENSATION INSURANCE**

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

**23. TESTS AT SITE**

- a) In all cases where the contract provides for tests at the site the contractor except where otherwise specified, shall provide free of charge, such labour, materials, electricity, fuel water stores, apparatus and instruments as may be required from time to time as may reasonable be demanded to carry out efficiently such tests of the material or workmanship in accordance with the contract.
- b) In case of contractor requiring electricity for test at site, such electricity shall be supplied to the contractor in the convenient form available, on payment except specifically exempted.
- c) Purchaser reserves the right to carry out any additional site tests for ensuring workmanship beyond contractor's scope, at his own expenses. If the workmanship is not found as per norms, then all expenses incurred during the testing will be on contractors account and contractor shall remove the deficiency free of cost.
- d) If the material used in erection is found different from the issued by JVVNL, then purchaser reserves the right to take action against the contractor as per prevailing rules/acts/ contractual obligations including effecting recovery of the cost of such whole material from the contractor including debarment/FIR.

**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. 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 exclusive of GST as applicable. The prices shall be quoted in Indian Currency “Rupees only”. The GST will be paid extra on production of documentary evidence. 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 15% of the total contract value.
- (iii) 95% (Ninety five percentage) payment for the respective bills for erection works shall be made to the contractors on submission of bill(s) to the concerned circle Sr. Accounts Officer / Accounts Officer (O&M) of Jaipur 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 12 (Twelve) 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) If contractor does not produce final bill along with MAS account (in prescribed format) within 9 months from submission of last running bills, then the SE(O&M) will review the case on following points:
- a. Quantum of pending work.
  - b. Quantum of material required to complete the pending work.
  - c. Excess material available with contractor.
  - d. Reasons attributable for non-submission of final bill along with MAS account and non-deposition of excess material for which contractor may be called.

After reviewing the case, SE (O&M) will issue a registered notice to the contractor, for depositing the excess material, if any, as well as submitting final bill along with MAS account within one month positively.

After lapse of one month notice period, if contractor fails in submitting final bill along with MAS account as well as depositing excess material, if any, then SE (O&M) will issue direction to circle AO for stopping the whole payment of the contractor.

- (vi) The Accounts Officer 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). However GST (if applicable) will be reimbursed along with bill(s) on the production of documentary evidence of deposition of the same.
- (vii) Under some eventually, if contractor has to supply small quantity of material then he should be paid for the material separately.
- (viii) Only 70% payment for the erection works shall be released up to three running bills and balance payment shall be released only on the submission of final bill which is to be furnished within two (2) months from the date of completion of respective work. Final bill shall be entertained only after submission of final account along with details of deposition of all retrieved material. No further running bill except final bill shall be entertained after 3(three) running bills.
- 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) 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.

## **26. BID SECURITY DECLARATION: -**

The bidders shall submit the bid security declaration at the time of submitting the bid on Rajasthan Non-Judicial stamp paper @Rs.50/- with 30% surcharge as per



rules in enclosed performa. The bidder shall submit bid security declaration upto 2.00PM of one day prior to the date of opening of bid in the office of AO(JCC), Jaipur Discom, Jaipur and photocopy of the same will be uploaded along with the bid.

## **27. 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 **03 (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 non-judicial stamp papers worth 0.25 % of BG value & max. upto Rs. 25,000/- in the prescribed format in favour of the concerned circle Superintending Engineer (O&M), JVVNL. The Performance Bank Guarantee is to be remained valid for a period of **commencement & completion period + 12 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 JVVNL.**

**The performance bank guarantee shall be released only after completion of 12 month performance period satisfactorily from the date of completion of work /Handover of the project whichever is later.**

## **28. SECURITY BANK GUARANTEE AGAINST SAFE CUSTODY OF MATERIAL:-**

The bidder shall be liable to furnish security bank guarantee, in order to secure safeguard against any embezzlement/ misappropriation of material. 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 SBG against safe custody of material equivalent to **10 % (ten percent) of contract value**. The same shall be deposited by the successful bidder either in the form of crossed Bank Draft/Bankers cheque or by way of Bank Guarantee from scheduled Bank on non-judicial stamp papers worth 0.25 % of BG value & max. upto Rs. 25000/- in the prescribed format in favour of the concern circle Superintending Engineer [O&M], JVVNL. The Security Bank Guarantee is to be remained valid for a period of commencement & completion period + 03 Months 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 bidder to get the SBG extended well in time to maintain its validity as desired by the JVVNL .

**The security bank guarantee shall be released only after completion of 03 month of completion of work /Handover of the project whichever is later.**

## **29. 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.

**30. 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.

**31. UNUTILIZED MATERIAL:-**

If, the material supplied by JVVNL for erection remains unutilized, the same shall be deposited back by contractor in the concerned Sub-Divisional store.

**32. EXTRA ITEMS:-**

In case of some additional items are required to erect and which are essential for completion of project work and has not been covered in G-schedule may be included in the final Bill with detailed justification of such items with due approval of competent authority.

**The erection charges for extra items shall be paid as per prevailing rate of CLRC along with premium (above or below) allowed on G-schedule rate. The extra items will be approved by the authority as per delegation of power.**

**33. 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.

**34. 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.

### **35. 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.

### **36. 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.

### **37. 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.

### **38. 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.

### **39. 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.

### **40. 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.

### **41. FAILURE TO EXECUTE THE CONTRACT:**

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

**42. COMPLIANCE OF LABOUR LAGISLATION:**

The bidder shall discharge its liability of employer/ contractor in respect of personnel to be engaged for service, as said 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 28, 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.

**43. 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.

**44. SETTLEMENT OF DISPUTES:**

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

The JVVNL 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

The settlement committee fees as shown above or prevailing at that time shall be deposited in cash with the respective circle Accounts Officer (O&M), JVVNL and shall furnish receipt thereof with a request for referring their disputes to the settlement committee for decision.

**45. CONDUCT OF AGENCIES STAFF:**

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

**46. LIEN:**

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

**47. WORKS SAFETY:**

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

## **SECTION-III PART-I A**

### **ERECTION CONDITIONS OF CONTRACT (ECC)- GENERAL REQUIREMENT**

#### **1.0 GENERAL**

1.1 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.

1.2 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.

#### **2.0 REGULATION OF LOCAL AUTHORITIES AND STATUTES**

2.1 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.

2.2 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.

#### **3.0 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.

#### **5.0 ACCESS TO SITE AND WORKS ON SITE**

5.1 Suitable access to the Site shall be afforded to the Contractor by the Owner in

reasonable time.

5.2 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.

## **6.0 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.

## **7.0 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.

## **8.0 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 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 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.

## **9.0 CONTRACTOR'S FIELD OPERATION**

9.1 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 in 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.

9.2 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.

## **10. 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.

## **11. 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 develops 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.

## **12. EMPLOYMENT OF LABOUR**

12.1 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.

12.2 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.

12.3 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.

12.4 The Contractor's employees shall wear identification badges while on work at Site.

12.5 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.

12.6 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.

## **13.0 FACILITIES TO BE PROVIDED BY THE CONTRACTOR**

### **13.1 Tools, tackles and scaffoldings**

The Contractor shall provide all the construction equipments, tools, tackles and scaffoldings required for pre-assembly, erection, testing and commissioning of the equipments 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.

### **13.2 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.

### **13.3 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.

## **14.0 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.

## **15.0 FIRE PROTECTION**

- 15.1 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.
- 15.2 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.
- 15.3 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.
- 15.4 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.

## **16.0 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.

## **17.0 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.

## **18.0 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.

## **19.0 MATERIALS HANDLING AND STORAGE**

- 19.1 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.
- 19.2 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.
- 19.3 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.
- 19.4 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.

## **20.0 CONSTRUCTION MANAGEMENT**

- 20.1 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.
- 20.2 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.

20.3 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.

20.4 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.

## **21.0 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.

## **22.0 PROTECTION OF PROPERTY AND CONTRACTOR'S LIABILITY**

22.1 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 equipments and utilities either above or below the ground.

22.2 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.

## **23.0 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.

### **23.1 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	:	As per statutory provisions
liability	:	As per statutory provisions

### **23.2 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.

### **23.3 Comprehensive General Liability Insurance**

25.3.1 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.

25.3.2 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.

25.3.3 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.

## **24.0 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.

## **25.0 WORK & SAFETY REGULATIONS**

25.1 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.

25.2 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.

25.3 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.

25.4 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 JVVNL in this regard.

25.5 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.

- 25.6 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.
- 25.7 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.
- 25.8 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.
- 25.9 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.
- 25.10 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.
- 25.11 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.
- 25.12 The 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.
- 25.13 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.

- 25.14 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.
- 25.15 The Contractors shall employ necessary number of qualified, full time Electricians/Electrical Supervisors to maintain his temporary electrical installations / erections site.
- 25.16 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.
- 25.17 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.
- 25.18 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.
- 25.19 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.
- 25.20 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 :
- 25.21 The Earth Resistance is to be maintained as required under Electricity act/ Rules for transformer and line earthing.
- 25.22 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

## 26. 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.

26.1 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.

26.2 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 25.18 , the Contractor shall promptly pay to JVVNL, 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 26.1 shall also apply in addition to compensation mentioned in this para.

26.3 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 JVVNL 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.

26.4 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.

**27.0 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 benchmarks, sight rails, pegs and such other thing used in the setting out of the works.

**28.0 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

### ERECTION CONDITIONS OF CONTRACT (ECC)- TECHNICAL REQUIREMENT

#### 1.0 SCOPE OF WORK:-

1.1 This specification covers execution of various activities under JVVNL i.e., erection, laying , testing & commissioning of material for HDPE Pipe under Railway Track in the area of city division I/II/VI.

#### 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 shut 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 confirm 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 Engineering Data**

4.1 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.

4.2 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.

## **5.0 Drawings**

5.1 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.

5.2 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.

5.3 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.

5.4 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.

5.5 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.

5.6 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.

5.7 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.

## **6.0 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.



## **7.0 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.

### **7.1 Span**

The number of consecutive spans between the section points and average span shall be as per relevant standard / instructions of engineer at site.

### **7.2 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.

### **7.3 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.

### **7.4 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.

### **7.5 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.

#### **7.6 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.

#### **7.7 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.

**7.8 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 45° 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.

#### **7.8.1 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.

### 7.8.2 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**.

### 7.8.3 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.

### 7.8.4 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

### 7.8.5 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

### 7.8.6 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.

### 7.8.7 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 45° 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

### 7.8.8 Method of crossing

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

#### 7.8.9 Minimum clearance between Railway track and overhead lines

SI.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

#### 7.8.10 Insulators to be used

SI.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 overhead line.
2.	C	Insulators as per normal design to be used.

### 8.0 STATUTORY REGULATIONS & STANDARDS-

#### 8.1 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.

#### 8.2 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.

## 9.0 CONSTRUCTION PRACTICES:-

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

### • 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

9.2 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 Jaipur Discom duly inspected and cleared for use in construction at site by the authorized person of Jaipur 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 lightning 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.

## **10.0 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.

## **11.0 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 achieve. 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.

### 11.1 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 o 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.

## **12.0 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 whether when rapid changes in temperature are not likely to occur.

### **13.0 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.

### **14.0 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.

## 15.0 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  $45^{\circ}$ .

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 /mm<sup>2</sup>.

## **16.0 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.

### **17.0 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.

### **18.0 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: -

### **19.0 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.

## **20.0 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 provided 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.

## **21.0 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 form the faults occurring on LT system.

## **22.0 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.

## **23.0 Distribution Line Locations:**

12.4.1 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.

12.4.2 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.

12.4.3 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.

#### **24.0 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.

# SECTION-IV

## PRE QUALIFICATION REQUIREMENT (JAIPUR VIDYUT VITRAN NIGAM LIMITED)

**1.0 GENERAL:** The Bidders shall become eligible on satisfying the following 'Bid Qualification Requirements' and on production of the required documentary evidences along with the Tender. The tender shall be filled by a single bidder.

**2.0 ELIGIBILITY:**

- i) The bidder should possess class "A/B" Electrical License issued by Electrical Inspectorate of Govt. of Rajasthan. If the bidder owns a license other than Raj state, he will have to obtain it within three month after award of contract, failing which award may be cancelled. An undertaking on Non-Judicial Stamp Paper Rs. 100/- to this effect is to be furnished along with bid.
- ii) The bidder must be registered with any Govt. department (State/Central/ Power utilities).
- iii) The Bidder should be an electrical contractor who regularly undertakes electrical projects and has adequate technical knowledge and practical experience of similar nature of works.

The bid shall be evaluated on the following qualification criteria. Any bidder if fails in any criteria shall be considered as disqualified.

- iv) 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-certified) in prescribed format in this regard.

**2.1 WORK EXPERIENCE:** Bidders having good experience of successful completing various Electrical projects directly in Govt. organizations/ Power utility during last 5(five) preceding financial years i.e. 2015-16, 2016-17, 2017-18, 2018-19 & 2019-20 of following activities.

- i. Erection / Construction of 33 KV / 11 KV overhead lines.
- ii. Laying / Construction of 33 KV / 11 KV underground cables .
- iii. Erection / Construction of 33/11KV sub stations

The bidder must have experience of erection work executed (completed) of **amount not less than 25% of the estimated cost** of the lot in any one year during last 5(five) preceding financial years i.e. 2015-16, 2016-17, 2017-18, 2018-19 & 2019-20. If a bidder submit bid in more than one lot at a time, his cumulative experience shall be counted for evaluation of his qualification experience.

In support of the works executed as stated above, the bidder is required to furnish a list of work orders executed during last 5(five) preceding financial years i.e. 2015-16, 2016-17, 2017-18, 2018-19 & 2019-20 in the prescribed format given at Schedule –3(B) duly supported by the following documents attested in respect of each work executed:-

- (i) Detailed work order(s).
- (ii) Satisfactorily work completion certificate issued by concerned officer not below the rank of Executive Engineer (in case of orders of / State Electricity Boards / Other Govt. agencies like Housing Board, Development Authorities, and RIICO etc. The completion certificates should also be Sealed & Signed by the participated bidders.

## **2.2 TURN OVER:**

The annual average turnover for best three of last five(5) preceding financial years i.e. 2015-16, 2016-17, 2017-18, 2018-19 & 2019-20 should be **at least 25 % of the estimated cost of erection work** duly certified by Chartered Accountant of India (ICAI) alongwith his/her membership No. (ICAI) & the bidder shall also furnish the audited financial statement.

## **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.**

**Jaipur Vidhyut Vitran Nigam Limited**  
**Office of the Zonal Chief Engineer (O&M-JZ)**  
**Old Power premises Banipark Jaipur -302016 (Rajasthan)**  
**Tel. No.: 0141-2201481**

**SECTION- V (Schedule & Forms)**

**INDEX**

<b>S. No</b>	<b>Description</b>
1.	Bid proposal form
2.	Schedule-1 (Commercial Terms & Conditions)
3.	Schedule-2 (Technical Terms & Conditions)
4.	Schedule-3A (Qualification Requirements Details) with preference of lots.
5.	Schedule-3B Details of works executed during last five financial years
6.	Schedule-4 ( Work Completion Schedule)
7.	Schedule-5 (List of Equipment's and Technical Hands)
8.	Schedule-6 (Check List For Bid Qualification )
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10.	Schedule-8 (Tax/GST Structure)
11.	Schedule-9 (Self Declaration of non-Blacklisting/Debarment/Business relation severement )
12.	MAS Account Format

## **BID PROPOSAL FORM**

**Bid Proposal form for the works of“ -----  
----- on ARC  
under TN-04 of Jaipur Discom”**

To,

**The Zonal Chief Engineer (J/Z),  
Jaipur Vidyut Vitran Nigam Limited,  
Jaipur.**

Dear Sir,

With reference to your invitation for bids against bid specification No. **JPD/ZCE(JZ)/ TN-04** we agree for execution of electrical work for erection, testing & commissioning on labour rate per bidding documents **downloaded** by us on prices, terms & conditions mentioned hereunder:-

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 and **GST if applicable shall be paid extra on production of documentary evidence at the time of submission of bill.**
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** 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 specification No. **JPD/ZCE(JZ)/TN-04** 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 JVVNL shall be deemed to constitute an agreement between the bidder and concern Circle SE whereby such bid shall remain open for acceptance

by the JVVNL 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 JVVNL, he shall be bound by the terms of agreement constituted by his bid and such acceptance thereof by the JVVNL, until formal contract of the same bid has been executed between him and the JVVNL 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 8 along with supporting documents.***

Yours faithfully,

Place:

Date:

Signature

Name & Designation with seal of the firm

COVER II (PART'A')

Commercial Terms & Conditions

Bidder's Name & Address:

To,

The Zonal Chief Engineer (J/Z),  
Jaipur Vidyut Vitran Nigam Limited  
Jaipur - 302006

**Sub:** Confirmation for “No Deviation” in Commercial terms & conditions of package No.  
**JPD/ZCE(JZ)/TN-04**

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).....

COVER II (PART'A)

Technical Terms & Conditions

Bidder's Name & Address:

To,

The Zonal Chief Engineer (J/Z),  
Jaipur Vidyut Vitran Nigam Limited  
Jaipur - 302006

**Sub :** Confirmation for “No Deviation” in Technical terms & conditions of package No. JPD/ZCE(JZ)/TN-04

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.

Yours faithfully,

(Signature) .....

Date :

Place :

(Name) .....

(Designation) .....

(Common Seal).....



COVER II (PART'A')

**Qualification Requirements Details**

Bidder's Name & Address:

To

**The Zonal Chief Engineer (J/Z),  
Jaipur Vidyut Vitran Nigam Limited  
Jaipur - 302006**

**Dear Sir(s),**

We hereby declare that we are qualified for bidding in reference to “**Qualification Requirements**” of the bidding documents **JPD/ZCE(JZ)/TN-04** 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)**



COVER II (PART'A')

**Work Completion Schedule**

Bidder's Name & Address:

To

**The Zonal Chief Engineer (J/Z),  
Jaipur Vidyut Vitran Nigam Limited  
Jaipur - 302006**

Dear Sir(s),

We hereby declare that the following Work Completion Schedule shall be followed by us in erection and commissioning the material/ equipment's for works as detailed in the "SCHEDULE-G" under Section-V of package No. **JPD/ZCE(JZ)/TN-04**

S. No.	Stage	Period in months
1	Commencement	The execution of work shall be commenced within 15 days from the date of issue of work order.
2	Completion of supply, erection, testing and commissioning of ordered work	Within <b>90 days thereafter</b>

Date:

(Signature).....

Place:

(Name).....

(Designation).....

(Common Seal).....

COVER II (PART'A')

List of Equipment's and Technical Hands

Bidder's Name & Address:

To,

**The Zonal Chief Engineer (J/Z),  
Jaipur Vidyut Vitran Nigam Limited  
Jaipur - 302006**

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).....

**COVER II (PART'A')**

**CHECK LIST FOR BID QUALIFICATION**

**(TO BE PROVIDED IN "COMMERCIAL AND TECHNICAL BID")**

Sr. No.	Particulars	Bidder's response
1.	Name and Address of the Firm/Company	
2.	Address of the Registered office, Phone Nos. etc	
3.	Address of the Factory/Works, Phone Nos. etc.	
4.	Fax No. for correspondence	
5.	Whether the bidder is old/contractor to the JVVNL/Rajasthan DISCOMS for similar type of electrical works.	Yes / No
6.	Whether the copies of orders executed during the last five years in respect of such type of works.(as per schedule 3A)	Yes / No
7.	Whether performance certificates from the end users enclosed	Yes / No
8.	Annual Turnover of the Bidder for the last five years duly certified by CA's  2015-16  2016-17  2017-18  2018-19  2019-20	Yes / No
9.	a) Whether documentary evidence produced for the annual turn over	Yes / No
10.	Electrical Contractor License (A/B) [G.O.R]	Yes/No
11.	Work experience as per qualification requirement enclosed or not?	Yes/No

**DATE :**

**SIGNATURE OF THE BIDDER**

**PLACE:**

**NAME :**

**STATUS IN THE COMPANY**

**(AFFIX SEAL OF THE COMPANY)**

**COVER II (PART'A')**

**CHECKLIST FOR COMMERCIAL TERMS**

**(TO BE PROVIDED IN "COMMERCIAL AND TECHNICAL BID")**

Sl.No.	Particulars	Bidder's response
1.	BID Declaration: (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 <b>GST if applicable shall be paid extra on production of documentary evidence.</b>	Yes / No

**DATE :**

**SIGNATURE OF THE BIDDER**

**PLACE:**

**NAME**

**STATUS IN THE COMPANY**

**(AFFIX SEAL OF THE COMPANY)**

COVER II (PART'A)

Confirmation/ declaration regarding GST or any other Taxes

Bidder's Name & Address:

To,

The Zonal Chief Engineer (J/Z),  
Jaipur Vidyut Vitran Nigam Limited  
Jaipur - 302006

Sub : Confirmation/ declaration regarding GST, or any other Taxes\_of  
package No. JPD/ZCE(JZ)/TN-04

Dear Sir,

We hereby confirm that the quoted prices of erection of material/ equipment under package No. **JPD/ZCE(JZ)/TN-04** are exclusive of GST, including freight, insurance charges and also inclusive of all type of required local transportation from and to JVVNL stores to temporary storage/ site as per the various provisions of the bidding document.

Yours faithfully,

(Signature) .....

Date :  
Place :

(Name) .....

(Designation) .....

(Common Seal).....

**SCHEDULE-9**

**Self Declaration of non Blacklisting/Debarment/Business relation severement**

To,

**The Zonal Chief Engineer (J/Z),  
Jaipur Vidyut Vitran Nigam Limited  
Jaipur - 302006**

In reference to the tender ref. no **JPD/ZCE(JZ)/TN-04** dated.....as an owner/partner/director of .....I/We hereby declared that our company/firm .....is not blacklisted/debarred & business relation are not severed with any State/Central Govt. /PSU/ Power utilities 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 extent accepted may be cancelled.

Thanking you,

Yours faithfully,

(Signature).....

Date :

Place :

(Name).....

(Designation).....

(Common Seal).....



# Form of Bid-Security Declaration

Date:  
Bid No.:  
Alternative No:

To:

\_\_\_\_\_  
\_\_\_\_\_

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

We accept that we are required to pay the bid security amount specified in the term and condition of Bid, in the following cases, namely:-

- (a) when we withdraw or modify our bid after opening of bids;
- (b) when we do not execute the agreement, if any, after placement of supply / work order within the specified period;
- (c) when we fail to commence the supply of the goods or service or execute work as per supply/ work order within the time specified;
- (d) when we do not deposit the performance security within specified period after the supply/ work order is placed; and
- (e) if we breach any provision of code of integrity prescribed for bidding is specified in the Act and Chapter VI of these rules.

In addition to above, the state government shall debar us from participating in any procurement process undertaken for a period not exceeding three years in case where the entire bid security or any part thereof is required to be forfeited by procuring entity.

We understand this Bid Securing Declaration will expire if :-

- (i) we are not the successful Bidder;
- (ii) the execution of agreement for procurement and performance security is furnished by us in case we are successful bidder;
- (iii) thirty days after the expiration of our Bid;
- (iv) the cancellation of the procurement process; or
- (v) the withdrawal of bid prior to the deadline for presenting bids. unless the bidding documents stipulate that no such withdrawal is permitted.

Signed:\_\_\_\_\_

Name:\_\_\_\_\_

In the capacity of :\_\_\_\_\_

Duly authorized to sign the bid for and on behalf of:

Dated on                      Day of

Corporate seal\_\_\_\_\_

(Note: In case of a Joint Venture, the Bid Securing Declaration must be signed in name of all partners of the Joint Venture that is submitting the bid.)