

# AJMER VIDYUT VITRAN NIGAM LIMITED



## BIDDING DOCUMENT FOR

**LABOUR RATE CONTRACT FOR THE YEAR 2019-20 AGAINST  
PACKAGES NO. AJD /SE/TW/TN-371 FOR SIKAR CIRCLE UNDER AVVNL.**

**SUPERINTENDING ENGINEER (TW)  
AJMER VIDYUT VITRAN NIGAM LIMITED  
MAKADWALI ROAD  
PANCHSEELNAGARAJMER  
TELEPHONE NO. 0145-2644507  
FAX NO. 0145-2644507  
E-mail-setwipdaavvnl@avvnl.in**

**Bid Cost :Rs. 2950/- (Inclusive of GST)**

# AJMER VIDYUT VITRAN NIGAM LIMITED



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**AJMER VIDYUT VITRAN NIGAM LIMITED**  
**OFFICE OF THE SUPERINTENDING ENGINEER (TW)**  
Makadwali Road, Vidyut Bhawan, Panchseel Nagar Ajmer-305004

**Telephone: 0145-2644507**

**Fax : 0145-2644507**

**Last Date of Receipt of Bids**

**18.07.2019 up to 5:00 PM**

**Date & Time of Opening of Bids**

**19.07.2019 on 03:00 PM**

**Validity of Bids**

**90 DAYS**

**Cost Of Bid Documents**

**Rs. 2950/- ( Inclusive of GST )**

**Bid Security (in case of Registered bidders)**

**Rs. 25,000/-**

**Registration No. / Date & category  
under ZCE(O&M)/SE Concern of  
Discom**

**Note:-**

- (1) Copy of the bid documents (Non-Transferable) of aforesaid package can be downloaded from the official website of Ajmer Discom [www.avvnl.com](http://www.avvnl.com) , [www.eproc.rajasthan.gov.in](http://www.eproc.rajasthan.gov.in) & bid may be submitted to undersigned along with demand draft (Non Refundable) of Rs.2950/- (Inclusive of GST) in favour of Sr. Accounts Officer (EA & CASH), AJMER VIDYUT VITRAN NIGAM LIMITED, Ajmer-305001. The bid for package will be received up to 05:00 P.M on dt 18.07.2019 and will be opened on dt 19.07.2019 Time 03:00 PM in presence of bidders or their authorized representative who wish to be present.
- (2) Only those bidders are eligible for participation in this bid who is registered contractors in various categories E1, E2 E3 E4 & E5 in different circles & Zones. However the intended bidders who are not registered yet can get registered themselves in various categories E1, E2 E3 E4 & E5 in desired circles & zones before submission of due date of Bid.
- (3) **Qualification Requirement (QR)**  
This shall be governing as per Section- IV Pre Qualification Requirement.
- (4) **The work shall be awarded to those Bidders/Contractors who have participated in this bid & consequently their bids have been accepted for awarding rate contract.**  
The bidders are required to deposit Bid Security **Rs.25,000/-**(Rupees Twenty five thousand only) in cash by way of demand draft drawn in the name of Sr. Accounts Officer (EA & CASH), AVVNL, Ajmer. The Bid security shall be refunded to the unsuccessful bidder soon after the contract with the successful bidder is signed. In case of successful bidders who have awarded rate contract order, the bid security shall be transferred to performance security of rate contract & shall be refunded after successful completion of rate contract period.
- (5) The bidder(s) shall quote the rates overall percentage below/above G-schedule indicated in BOQ.xls file.
- (6) The bidders are required to upload the following self-attested documents only:-
  - i. Schedule-1 (Qualification requirement details)
  - ii. Schedule-2 (Commercial terms & conditions)
  - iii. Schedule-3 (Technical terms & conditions)
  - iv. Schedule-4 (Self declaration of non blacklisting/debarment/business relation severement)
  - v. Annexure A (Declaration Certificate)
  - vi. Registration Certificate in Ajmer Discom
  - vii. Electrical license
  - viii. Copy of receipt of bid security amount, Processing fees & Tender cost. The above documents shall be duly signed and stamped with seal of the firm.

**Superintending Engineer (TW)**

## INVITATION FOR BID (IFB)

### LABOUR RATE CONTRACT FOR THE YEAR 2019-20 AGAINST PACKAGE NO. AJD / SE/TW/TN-371 UNDER SIKAR CIRCLE

1. This invitation for bid follows the procurement notice (Invitation for Bid) for the subject package which also appeared in National and Regional Newspapers. This shall also be available on **AJMER VIDYUT VITRAN NIGAM LIMITED** website.
2. **AJMER VIDYUT VITRAN NIGAM LIMITED** (hereinafter referred to as ‘**AVVNL**’)
3. **AVVNL**, therefore, invites sealed bids from eligible bidders for the package.
4. The complete Bidding Documents are available at **AVVNL** website <http://www.avvnl.com>. Bidders who wish to participate in this bidding process must register on <http://eproc.rajasthan.gov.in>. Interested bidders can download the bid documents through e-tendering portal <http://www.eproc.rajasthan.gov.in> and commence preparation of bids to gain time. The bid document provides detailed terms and conditions and technical details.
5. Interested eligible bidders may obtain further information from the office of S.E (TW), **AJMER VIDYUT VITRAN NIGAM LIMITED, Ajmer** between 11:00 AM to 02:00 PM on all working days till the submission of Bidding Documents is open.
6. The bid shall only be submitted through online procurement system of <https://eproc.rajasthan.gov.in>. The bid document will be downloaded by the said online portal [www.eproc.rajasthan.gov.in](http://www.eproc.rajasthan.gov.in) and Interested Bidder who wish to participate have to pay the bid cost of Rs 2950/- (inclusive of GST) (Rupees Two Thousand Nine Hundred & Fifty only) (Non-Refundable) by demand draft/banker cheque payable to Sr. Accounts Officer [EA & CASH], **AVVNL, Ajmer** and copy of receipt is to be enclosed along with the E-bid in pdf file & shall be deposited in the office of Sr. A.O.(EA & CASH), **AVVNL, Ajmer** upto 05:00 PM on 18.07.2019

The bids without having the bid cost will not be opened. To participate in this online bid, bidders will have to procure Digital Signature Certificate (Type-II or III) as per Information Technology Act-2000 using which they can sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency i.e. TCS, Safecrypt, Ncode etc. Or they may contact e-procurement cell, Department of IT & C, Govt. of Rajasthan for future assistance, bidders who already have a valid digital Certificate need not to procure a new Digital Certificate.

**Contact No.** 0141-4142688 (Help desk of RISL-10.00 AM to 6.00 PM)

**E-mail:** [eproc@rajasthan.gov.in](mailto:eproc@rajasthan.gov.in)

**Address:** e-procurement cell, RISL, Yojana Bhawan, Tilak Marg, C-Scheme, Ajmer.

Bidders should go through the website <http://www.eproc.rajasthan.gov.in>, should refer to the website and go through the link “Help for Contractors”, “Information about DSC”, “FAQ” and “Bidders Manual Kit” to know the process for submitting the electronic bids at the website.

The “Instructions to bidders” and other terms & conditions of this bid pertaining to the bidding process generally follows the guidelines of e-tendering system of the Govt. of Rajasthan available at URL <http://www.eproc.rajasthan.gov.in>. However, wherever there is any anomaly between the conditions referred to in this document and the GoR tendering system, the later shall be final.

All the communications/ correspondence including the bid document (Technical and Financial Bid) should be signed digitally and stamped on each page by the designated authorized representative of the bidder.

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.

7. A Single Stage Three Cover Bidding Procedure will be adopted and the bid process will proceed as per the details mentioned in this Bid Document.
  - a. Bids must be submitted through E-tendering process at or before **05:00 PM on 18.07.2019** Price shall be submitted electronically. Late bids will be rejected. Bid Envelope i.e. Techno Commercial Part shall be opened on the next day i.e. 19.07.2019 in the presence of the bidders' representatives who choose to attend in person at the address given below at 05:00 PM. Price Bids shall be opened in the presence of the bidders' representatives who choose to attend at the time and date at the address given in the intimation for opening of Price.
  - b. The Nigam reserves the right to cancel/withdraw this invitation for bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision.
8. All correspondence with regard to the above shall be to the following address.

(By Post/In Person)

To,

**Office of the SE (TW)**  
**MAKADWALI ROAD VIDYUT BHAWAN**  
**PANCHSEEL NAGAR AJMER-305004**  
**TELEPHONE NO. 0145-2644507**  
**FAX NO. 0145-2644507**  
**E-mail-setwipdaavn1@avn1.in**

For more information, visit our site at <http://www.avnl.com> or <http://eproc.rajasthan.gov.in>

## INSTRUCTIONS TO BIDDERS OF LABOUR RATE CONTRACT SECTION - I

### 1. SCOPE

The bid is invited for finalization of Labour Rate Contract for execution of various electrical and other work i.e. 33/11 KV GSS/33 KV Line/ 11KV Line/11.4 KV sub-station/ LT Line/ Undergrounding cabling, Transportation of various Items, replacement of transformers , fabrication of various steel items ,installation of capacitors , installation of metering instrument etc., dismantling of lines , maintenance of lines and sub-stations, laying of AB cables ,change of meters, change of service lines, installation of capacitors etc. in the jurisdiction of AVVNL

### 2. INSTRUCTIONS:-

The clarification if any may be sought from Superintending Engineer (TW), Vidyut Bhawan, Panchsheel, Ajmer in writing at least fifteen days before the specified date of opening of bids.

### 3(A) FILLING OF BIDS

- i) The bid shall only be submitted through online procurement system of <https://eproc.rajasthan.gov.in> The bid document will be downloaded by the said online portal [www.eproc.rajasthan.gov.in](http://www.eproc.rajasthan.gov.in) and Interested Bidder who wish to participate have to pay the bid cost of Rs 2950/- (inclusive of GST) (Rupees Two Thousand Nine Hundred & Fifty only) (Non-Refundable) by demand draft/banker cheque payable to Sr. Accounts Officer [EA & CASH], AVVNL, Ajmer and copy of receipt is to be enclosed along with the E-bid in pdf file & shall be deposited in the office of Sr. A.O.(EA & CASH), AVVNL, Ajmer upto 05:00 PM on 18.07.2019

The bids without having the bid cost will not be opened. To participate in this online bid, bidders will have to procure Digital Signature Certificate (Type-II or III) as per Information Technology Act-2000 using which they can sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency i.e. TCS, Safecrypt, Ncode etc. Or they may contact e-procurement cell, Department of IT & C, Govt. of Rajasthan for future assistance, bidders who already have a valid digital Certificate need not to procure a new Digital Certificate.

**Contact No.** 0141-4142688 (Help desk of RISL-10.00 AM to 6.00 PM)

**E-mail:** [eproc@rajasthan.gov.in](mailto:eproc@rajasthan.gov.in)

**Address:** e-procurement cell, RISL, Yojana Bhawan, Tilak Marg, C-Scheme, Ajmer.

Bidders should go through the website <http://www.eproc.rajasthan.gov.in>, should refer to the website and go through the link “Help for Contractors”, “Information about DSC”, “FAQ” and “Bidders Manual Kit” to know the process for submitting the electronic bids at the website.

The “Instructions to bidders” and other terms & conditions of this bid pertaining to the bidding process generally follows the guidelines of e-tendering system of the Govt. of Rajasthan available at URL <http://www.eproc.rajasthan.gov.in>. However, wherever there is any anomaly between the conditions referred to in this document and the GoR tendering system, the later shall be final.

E-bid processing fee of Rs.1180/- (Rupees One Thousand one hundred Eighty only) in Demand Draft/ banker cheque in favour of M.D. RISL to be payable at Jaipur and bid security as prescribed for registered. A copy of the receipt of bid document fee, bid processing fee & EMD/bid security in pdf file must be enclosed along with the Technical bid/proposal failing which the bid will be summarily rejected.

All the communications/ correspondence including the bid document (Technical and Financial Bid) should be signed digitally and stamped on each page by the designated authorized representative of the bidder.

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.

**3(B)** A Single Stage Three Cover Bidding Procedure will be adopted and the bid process will proceed as per the details mentioned in this Bid Document.

#### **DOCUMENTS TO BE UPLOADED WITH THE BID:**

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

a. **Cover I** for details of BID SECURITY / Bid E-processing fee and Cost of Bid document as detailed below:

- (i) Proof of depositing BID SECURITY (DD/Banker's Cheque from scheduled Bank which shall be got verified from the issuing bank.
- (ii) Proof of depositing DD/Banker's Cheque towards e- Bid processing fee.
- (iii) 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) Schedule-1 Qualification Requirement Details.
- (ii) Schedule-2 commercial term & conditions.
- (iii) Schedule-3 Technical Term & Conditions.
- (iv) Schedule-4 self declaration of blacklisting/debarment/business relation severement.
- (v) Annexure A, Declaration certificate
- (vi) Copy of class "A/B" Electrical contractor license issued by Government of Rajasthan
- (vii) Name & correspondence address of the bidder along with phone /Fax No. & email address.
- (viii) Copy of registration certificate in AVVNL to be furnished by the participated bidder.

c. **Cover-III For financial / price bid / BOQ (to be filled in . x l s format) in prescribed schedule.**

This price Bids must be submitted through E-tendering process at or before **05:00 PM on 18.07.2019** Price shall be submitted electronically. Late bids will be rejected. Bid Envelope i.e. Techno Commercial Part shall be opened on the next day i.e. **19.07.2019** in the presence of the bidders' representatives who choose to attend in person at the address given below at 03:00 PM. Price Bids shall be opened in the presence of the bidders' representatives who choose to attend at the time and date at the address given in the intimation for opening of Price 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.

**The AVVNL reserves the right to cancel/withdraw this invitation for bids without assigning any reason and shall bear no liability whatsoever consequent upon such a decision.**

**The Ajmer Discom will not be responsible to accept any cost involved in the preparation or submission of bids.**

**The work shall be awarded to those Bidders/Contractors who have participated in this bid & consequently their bids have been accepted for awarding rate contract.**

#### **4. REGISTRATION/ ENLISTMENT OF CONTRACTORS**

The intending bidders, who are not registered at present in AVVNL, may get themselves registered as per enlistment scheme with the SE(O&M) /ZCE(O&M) of the Concerned circle/zone of AVVNL as per procedure given below:

##### **4.1. The contractors under for Electrical Works shall be enlisted in five classes:**

- E-I Class
- E-II Class
- E-III Class
- E-IV Class
- E-V Class

##### **4.2 ENLISTMENT AUTHORITY AND JURISDICTION OF WORKING:**

E-I/E-II Class contractors shall be enlisted by the concerned Zonal Chief Engineers of AVVNL for which they shall be eligible to execute the works throughout the jurisdiction of AVVNL. For category E-III, E-IV & E-V Class contractors, the circle SE will enlist the contractors for which they shall be eligible to execute the work in respective circle

##### **4.3. EXTENT UPTO WHICH WORK CAN BE AWARDED**

The Contractors of various classes shall be eligible to award the work upto the extent prescribed against each class as below:

<b>S.No</b>	<b>Class</b>	<b>EXTENT UPTO WHICH WORK CAN BE AWARDED SUBJECT TO DELEGATION OF POWERS</b>
1	E-I Class	Any Amount
2	E-II Class	Upto Rs.100.00 Lacs
3	E-III Class	Upto Rs.50.00 Lacs
4	E-IV Class	Upto Rs.20.00 Lacs
5	E-V Class	Upto Rs.4.00 Lacs

##### **4.4 REGISTRATION (ENLISTMENT) FEE AND SECURITY DEPOSIT FOR ENLISTMENT ARE GIVEN IN THE FOLLOWING TABLE:**

<b>S. No</b>	<b>Class</b>	<b>Amount of registration fee in cash/Bank Demand Draft (non refundable)</b>	<b>Amount of Security Deposit in cash (non-interest bearing)</b>	<b>Bank Guarantee Required</b>	<b>Past Experience Required</b>
1	E-I Class	Rs. 10000 + GST as Per Applicable	Rs. 5.00 lacs	Rs. 10.00 Lacs	Satisfactorily completed electrical/erection works on Labour Rate Contract Valuing atleast Rs 100 Lacs and minimum period of 3 months. Is satisfactorily over from the last completed work of similar nature.
2	E-II Class	Rs. 5000 + GST as per Applicable	Rs. 1.25 lacs	Rs. 2.50 Lacs	Satisfactorily completed electrical/erection works on Labour Rate Contract Valuing atleast Rs 50 Lacs and minimum period of 3 months. Is satisfactorily over from the last completed work of similar nature.
3	E-III Class	Rs. 2500 + GST as per Applicable	Rs.0.50 Lacs	Rs. 1.00 Lacs	Satisfactorily completed electrical/erection works on Labour Rate Contract Valuing atleast Rs 25 Lacs and minimum period of 3 months. Is satisfactorily over from the last completed work of similar nature.
4	E-IV	Rs. 1000 + GST		Rs. 1.00	Any individual person, firm or entity having



	Class	as per Applicable	Rs.0.20 Lacs	Lacs	ITI/Diploma/Degree in Electrical or Mechanical branch/retired technical personnel or state power utilities/any other person having Electrical license Govt. of Raj.
5	E-V Class	Rs. 1000 + GST as per Applicable	Rs.0.04 Lacs	-	-

**Note :- The work shall be awarded to E-V Class catg. as per AVVNL RULE 661,655,653 issued vide letter no.2721,1954 1643 dt. 8.10.2015,6.8.2014 and 21.7.2014.**

4.5. A pass book shall be issued to the registered contractors under E-II,E-III ,E-IV E-V classes to watch work orders upto Rs. 100 lacs,50 lacs, 20 lacs & 4 lac s respectively. The work order placing authority shall make entry in the pass book under his signature.

4.6. All Category of Vendors should possess electrical license of the government of Govt. of Rajasthan, In following items electrical license is not mandatory from registered contractors under category E-V.

- (i) Bill distribution.
- (ii) Hiring of Vehicle.
- (iii) Photocopies.
- (iv) Fabrication work.
- (v) Transportation of Material

## **5. RECEIPTS AND OPENING OF BIDS**

- (a) Should the date fixed for opening of the bids be declared as a public holiday, the bids shall be received and opened on the date on which office re-opens after such holiday(s) on the timing as indicated above.

## **6. VALIDITY OF BIDS**

Bids shall be valid for a minimum period of 90 days after the date of opening of bids. Bids mentioning a shorter validity period than specified, are likely to be ignored.

## **7. SIGNATURE OF BIDDER**

The bid must contain the name, designation and place of business of the person or persons making the bid and must be signed. Bid by a partnership firm must be furnished with the full names of all the partners and be signed with the partners name by one of the member of partnership or by authorized representative indicating the signatures and designation of the person or persons signed with the legal entity of the Corporation/Companies by the Managing Director or by the Secretary or by other person authorized to bind the Corporation/Company in the matter.

## **8. QUANTITIES**

- a) The quantum of rate contract work shall be finalized for the circle by the respective circle Superintending Engineer (O&M).
- b) The Nigam also reserves the right to split the quantities and to entrust the order for the works to one or more contractors. The bidder shall agree to accept part work at the rates/prices decided by AVVNL.

## **9. TIME SCHEDULE**

(A) The works have to be executed and completed within time schedule as stipulated in the work order issued by the Nigam.

In case of default the compensation/penalty shall be levied as define in clause 1.14 of GCC

## **10. AMENDMENT IN SPECIFICATION**

The Superintending Engineer (TW), Ajmer Discom, Ajmer may revise or amend the specification and timings prior to the date notified for opening of the bids. Such revision or amendment, if any will be communicated to all the bidders, as amendment or addenda to this invitation of the bid.

## **11. PRICES**

The bidder(s) shall quote the rates overall percentage below /above G-schedule indicated in BOQ.xls file.

- (a) Any bid containing prices not quoted in the manner prescribed under the G- schedule is liable to be ignored.
- (b) No representation for enhancement of rates once accepted will be considered.

## **13. GENERAL**

- (a) 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.
- (b) The contractor shall treat the details of the specification and other bid documents as private and confidential and they shall not be reproduced without the written authorization of the Nigam.
- (c) The Nigam does not bind himself 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.
- (d) 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 be notified during the period of validity/extended validity of bid that his bid is accepted by the Nigam, the bidder shall be bound by the Nigam until formal contract of the same bid has been executed between bidder and the Nigam in replacement of such agreement.

## **14. REJECTION OF BID:**

Any action on the part of the bidder to revise the rates / prices at his own instance after the opening of the bid may result in rejection of the bid and penal provision shall be applicable as provided in this bidding document.

## **15. GUIDELINES FOR THE BIDDERS/CONTRACTORS**

- 1. AJMER VIDYUT VITRAN NIGAM LIMITED intends to enter into rate contract for various works as incorporated in these bidding documents.

2. The rate contract shall remain in operation initially for a period of two year which may be further extended by three month.
3. All the disputes arising out of the contract between the Contractor and AVVNL, shall be subject to the jurisdiction of the court in the State of Rajasthan at Ajmer.
4. The bidders are required to quote rate(s) strictly in accordance with the terms and conditions of the Nigam. Any counter conditions in the offered rates shall not be acceptable.
5. The Nigam will permit wastage for the items for erection of line(s) as follows:-

A. Conductor and Earth wire	:	1.5 % {For sag, binding and wastage}
B. Insulators	:	1%
C. Hardware & Accessories	:	1%

The contractor will make every effort to minimize the wastage. The contractor shall also return to the Nigam all the items unused. The conductor/ground wire lengths less than 20 meters will be treated as wastage, but would be required to be returned as far as possible. However, the contractor shall compensate the Nigam at rates corresponding to the actual cost of procurement plus 50% thereof. Reconciliation of material shall be done immediately after completion of stringing. The empty drums of conductor and earth wire shall be got deposited in the store(s) of the Assistant Engineer (O&M) concern. In case of shortage /non-depositing the empty drums of conductor / earth wire, the cost of Rs. 300/- per empty drum of conductor and Rs. 100/- per empty drum of earth wire will be deducted from the bills payable to the contractor.

**16. CPF/ EPF SCHEME:**

The contractor will have to furnish the information in the Performa form "C" para 6.5(a) every month or with every bill in respect of the employees engaged in connection with the execution of work from the date of its commencement and upto the date of completion. If the contractor fails to furnish this information, the concerned circle Accounts Officer of AVVNL shall deduct the amount from the bills at the rates applicable at the time of payment as per CPF rules act and kept under the head 46.921 (miscellaneous deposits) of the contractor/ employees till furnishes the information in the above mentioned Performa along with nomination form within stipulated period falling which, the amount is so deducted shall be deposited with Regional P.F. Commissioner within stipulated period as per CPF act.

**17. EMPLOYEES STATE INSURANCE**

The contractor shall have to deposit the subscription & contribution amount of the employees engaged by him on his works at the rates applicable from time to time with the ESI department every month under the provisions of ESI Act (if applicable) and will enclosed a copy of said challan with the bills.

**18. SECURITY AGAINST MATERIALS**

The contractor shall be fully responsible for the safe custody of all the material issued by AVVNL for the work (s)( as per quantity mentioned in Bill of Material enclosed along with work order) till their completion and handed over to AVVNL. For this the contractor shall take suitable storage –

cum-erection insurance cover note for entire project/material equivalent to cost of Bill of Material of the work order at the Store Issue Rate at his own cost. Such insurance will cover any destruction/risk of loss or damage of material by way of theft, damage in transit etc. If insurance cover is not submitted, then the contractor is required to submit a Bank Guarantee against the cost of material.

**19. TERMS OF PAYMENT FOR WORKS**

- (i) 90%(Ninety percent )payment for the erection works shall be made to the contractor on submission of bills to the concerned circle Accounts Officer (O&M) of Ajmer Discom.
- (ii) Balance 10%(ten percent) payment will be released after ascertaining satisfactory performance of the work for a period of 12 month from the date of completion & accepted by the engineer or after furnishing a performance bank guarantee to extent of 10% of the contract value, subject to completion of the contractual formalities incorporated in the work order and after effecting recovery of all dues from the contractor under the contract.
- (iii) The Account Officer concern shall made admissible payment ensuring all statutory deduction as applicable time to time from running & final bills .The bills submitted by the contractors shall be duly verified and counter sign by the officer as under ;

By Feeder Incharge-100%  
By JEN -100%  
By AEN-20%  
BY XEN-10%

**20.PERFORMANCE SECURITY DEPOSIT**

The performance security deposit would be equivalent to 10% of work order value which shall be deducted from the running bills(s) of the contractor. However in case the contractor alternatively furnish the performance bank guarantee equivalent to 10% of work order value on Non Judicial Stamp of Rajasthan State worth .25% of Bank Guarantee value (max Rs. 25000/-) then the deducted performance security deposit @ 10% shall be released. The said Bank Guarantee shall be valid for a period of 12 months from the date of completion of work.

The performance security deposit shall be released after 12 months from the date of successful completion of work and entire satisfaction of the Nigam.

**21.SAFETY MEASURES :**

The Contractor shall follow a safe method of working so that no damage/loss is caused to AVVNL regarding material and also injury to any of his workers. The AVVNL shall not be responsible in any way for the injury caused to Contractor's labour while working. The Contractor is advised to get insured his all workers against accident from any Nationalized General Insurance Company. The Insurance charges shall be borne by the Contractor himself.

**22.DEPOSITING OF UNUSED MATERIAL**

After completion of erection work, all surplus material viz complete towers and line materials including bolts and nuts, conductor, earth wire, hardwares, Insulator & other material etc. shall be returned by the contractor to the Store(s) of AVVNL as per instructions of Engineer Incharge at Contractor's cost.

### **23.SUPPLY OF MATERIAL**

All required material such as PCC poles, Conductor, G.I. Stay sets, Cross Arms with Clamps, Insulators with Hardware accessories and earth wire and sub-station material etc. will be supplied from the store(s) of concerned Assistant Engineer of AVVNL. The poles will be available along the line route at one or more places generally. No T&P, labour etc. for this work shall be supplied/ provided by AVVNL.

### **24 .MEASUREMENT OF CONDUCTOR:**

The length of Conductor shall be allowed on the basis of route length of the line measured along with sag during final survey of 33KV/ 11 KV/LT line(s). The contractor shall be responsible to return back excess conductor issued to him after taking into account the permissible wastage(s) as specified.

### **25. MAINTENAINING OF PASS BOOK**

A duly authenticated pass book shall be issued to all registered contractors by the concerned registering authority which shall be properly maintained by them. All entries of orders placed shall be made in this pass book by order placing authorities so as to know the total work awarded to him before placing fresh orders. New passbook shall be issued on completion of original passbook.

**Note:- Adding extra photocopy sheets in original passbook shall not be allowed.**

### **26. AWARD OF CONTRACT**

- (i) Notification regarding panel list and waiting list shall be communicated to the respective bidders. The order of Rate Contract shall be issued in favour of bidders who are in panel list.
- (ii) The respective bidder have to execute contract agreement with concerned SE(O&M) within a period of 15 days from the date of order of Rate Contract on NJS of Rajasthan worth Rs.- 500/-.
- (iii) The concerned SE (O&M) will issue work orders in favour of the bidders mentioned in the panel list. The SE (O&M) shall follow the roaster system for awarding work.
- (iv) The contractor shall execute contract agreement, with concerned SE(O&M), as per work order issued on NJS of Rajasthan worth 0 .25% of work order value subject to maximum Rs. 15000/-.
- (v) The rate contract may be extended by another three months on satisfactory performance of the contractor, on the discretion of management on same rates, terms & conditions .

# AJMER VIDYUT VITRAN NIGAM LIMITED

OFFICE OF THE SUPERINTENDING ENGINEER (TW)  
Makadwali Road , Vidyut Bhawan , Panchseel Nagar, Ajmer 305001

## GENERAL CONDITIONS OF CONTRACT OF LABOUR RATE CONTRACT

### SECTION - II

Notwithstanding 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 Nigam. 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.

#### **1.1 DEFINITION OF TERMS:**

- 1.1 In constructing these general conditions and the annexed specification, the following words shall have the meaning herein assigned to them unless there is any thing in the subject of the context inconsistent with such construction.
- 1.2 The “purchaser” shall mean the AVVNL represented by Managing Director and shall include there legal personnel representative, successors and assignees. The “Nigam” “Owner” or “Customer” shall mean the “purchaser”.
- 1.3 The “Bidder” shall mean and include one or more persons or any firm or any company or body incorporate 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 Subletting of the contractors is not allowed.
- 1.6 The Managing Director shall mean the Managing Director AVVNL
- 1.7 The “Engineer” shall mean the Zonal Chief Engineer, Add. C.E., Superintending Engineer or other Engineer or officer of AVVNL 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.
- 1.8 “Plant”, “Material”, “Stores”, “works”, shall mean and include the plant and material to be provided and work or works to be done by the contractor under the contract.
- 1.9 The “Contract” shall mean and include the following:-
  1. Invitation of bid.
  2. Instructions to bidders.
  3. Bid form including schedule of prices.
  4. Earnest Money .
  5. Letter of Intent and its acknowledgement.

6. Performance Bond/Guarantee.
  7. Formal Work Order.
  8. Guaranteed Test Performance and Penalty.
  9. General conditions of contract.
  10. Special Instructions.
  11. Site conditions.
  12. Specification, Specific conditions, schedules and drawing.
  13. Addenda which may hereafter be issued by the purchaser to the contractor in the form of letter and covering letters and schedule of prices as agreed between the contractor and purchaser.
- 1.10 The "Specification" shall mean the specification, specific conditions annexed to the general conditions, the contract and the schedule thereto, if any.
  - 1.11 The "Month" shall mean, English Calendar month i.e. period of thirty days and "Week" shall mean a period of 7 days.
  - 1.12 The "Site" shall mean the place or places named in the contract and include, where applicable, the land and buildings upon or in which the works are to be executed.
  - 1.13 The "Place of delivery" shall mean the place of delivery at which the contractor/supplier is responsible to deliver the materials at the contract price.
  - 1.14 The "Test of Completion" shall mean such tests prescribed in the contract to be made by contractor before the plant is taken over by the purchaser as per these general conditions.
  - 1.15 "Commissioning" shall mean the satisfactory operation of the plant or equipment specified herein after all initial checks, adjustment, trials, cleaning and assembly required at site, if any, have been completed and plant has been in continuous and un-restricted commercial use specified for at least thirty {30} days or as otherwise.
  - 1.16 "Commercial Use" shall mean that use of the work which the contract contemplates or at which it is to be commercially capable.
  - 1.17 "Letter of Intent" shall mean the purchaser letter conveying his acceptance of the bid subject to such reservations as may have been stated therein.
  - 1.18 The "Contract Price" shall mean the sum named in or calculated in accordance with the provision of the contract /purchase or any amendments thereto.
  - 1.19 "Formal Work Order" shall mean the purchaser's letter which may be issued in way of letter of intent containing detailed terms and conditions of the work/supply.
  - 1.20 "Consignee" shall mean and include the Assistant Controller of Stores, Stores Superintendents and/ or any other officer/official of the AVVNL all over Rajasthan performing the duties of consignee.
  - 1.21 "Writing" shall include any manuscript, type written or printed statement under or over signature or seal, as the case may be.
  - 1.22 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.

- 1.23 The Word “Trial Run” shall mean two {2} weeks continuous and satisfactory operation under full load to furnish proof of satisfactory and trouble free working.
- 1.24 Words importing “Person” shall include firms, companies, corporations and other bodies whether incorporated or not.
- 1.25 Words importing the ”Singular” only shall also include the plural and vice versa where the context requires.
- 1.26 Terms and expressions not herein defined shall have the same meaning as one assigned to them in Indian sale of good act{No.III or 1930 fulfilling that in Indian Contract Act{Act-IX of 1872} and falling that in the General clause act, 1897}

## **2. RATE CONTRACT.**

The contractor/supplier and purchaser shall as soon as possible, unless other wise agreed upon enter into a sealed agreement for the proper fulfilment of the contract. The expenses of the completing and stamping the agreement shall be paid by the contractor/supplier 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.

## **3. 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.

## **4. SUBLETTING AND ASSIGNMENT**

Subletting of the contractors is not allowed.

## **5. CONTRACT DOCUMENTS & AGREEMENTS:**

**This shall be govern as per clause of award of contract of section 1 (instruction to bidder).**

## **6. STANDARDS**

- 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.
1. Indian standard Institution standard code, where ever applicable.
  2. Indian Electricity Rules, 2005 with the latest amendments.
  3. Other Standards approved by Purchaser with the latest amendments.
  4. 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, 1910 with the latest amendments and the Indian Electricity Rules, 1956 and Rajasthan Power Sector Reforms Act, 1999 made there under.

**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 AND WORKMANSHIP:**

**10.1 Minor Accessories Fittings:**

The contractor shall supply all such minor accessories, fittings, apparatus required for the completion of the supply which have not been specifically mentioned in this specification or bid offer but which are usual or necessary for the equipment.

**10.2 Patent and Rights:**

The supplier shall give indemnity and keep indemnified the purchaser against liability of any kind including the cost and expenses for the order on account of any copyright and/or secret or process(es) adopted by the supplier including their use by the purchaser.

**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. POWER TO VARY OR OMIT WORK**

- 12.1 No alterations, amendments, omissions, additions, suspensions or variations of the plant or work hereinafter referred to as variations under the contract as shown in the contract drawing or the specification shall be made by the contractor or except as directed in writing by the Engineer but the Engineer shall have full power, subject to the provision hereinafter contained from time to time during the execution of the contract by notice in writing to instruct the contractor to make such variation without prejudice to the contract and the contractor shall carry out such variations and shall be bound by the same conditions as far as applicable as though the said variations occurred in the contract.
- 12.2 If any suggested variation would, in the opinion of the contractor if carried out prevent him from fulfilling any of his obligations or guarantees under the contractor, he shall notify the Engineer thereof in writing and the Engineer shall decide forthwith whether or not the same shall be carried out and if the Engineer confirms his instructions the contractual obligations and guarantee shall be modified to such an extent as may be justified.

## **13. DELIVERY AND TIME FOR COMPLETION**

The purchaser reserves the right to defer the delivery / execution period as indicated in the purchase / 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 delivery / execution in terms of clause delay in delivery.

## **14. COMPENSATION / PENALTY FOR NON EXECUTION/DELAY IN EXECUTION OF WORK**

### **(A) Delay in execution of works**

**In case of delay in execution of works beyond stipulated period the following recovery /action shall be made applicable**

- i) Recovery shall be effected for delay in delivery/ execution @ ½% per week or part thereof subject to a maximum of 5% of Contract value.
- (ii) To cancel the contract with levying penalty as per (i) above and if so desired to get the work completed by the other agencies/contractor at the risk and cost of the contractor.

### **(B) Penal Provision for non execution of contract/works.**

**In the following circumstances, the bidder may be debarred for a period not extended three year along with forfeiture of bid security.**

- 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 work order within the specified period.

- c. When the bidder fails to commence the execution of work as per work order within the time specified.  
In addition to above, the bidder shall be punished with fine, which may be extend to fifty lacs or 10% of assessed value of procurement whichever is less.

**Note:-**

- i. Non availability of matching material will not be counted as delay on the part of the contractor.
- ii. The adjustment in regard to the amount recoverable, if any, in terms of para 1.14(a) shall be made from the cash deposits/dues of the firm or by operating the Bank Guarantees as may be available with the Nigam and/or in any other manner as may be deemed appropriate by the purchaser.
- iii. Any financial liability i.e. increase in rate of GST, cost of raw material, freight charges, insurance tariff etc. arising consequent upon failure of the contractor to adhere to the stipulated delivery / execution schedule shall be to his (Contractor's) account.

**15. 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 1.14 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 Nigam 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 Nigam 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 supplier.

**16. SUSPENSION OF WORKS :**

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

**17. INSPECTION AND TESTING**

- 17.1 The Engineer and his duly authorized representative shall have at all reasonable times access to the contractors premises of works and shall have the power at all reasonable time to inspect drawing of any portion of the work or examine the materials and workmanship.
- 17.2 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.

## **18. INSURANCE:**

### **18.1 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 Nigam & contractor so that the Nigam 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 Nigam'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).

### **18.2 THIRD PARTY INSURANCE**

The contractor shall accept in so far as the contractor provides indemnify the Nigam 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 Nigam or to any person including any employee of the Nigam by or arising out of the execution of the works are in carrying out of the contract.

### **18.3 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 Nigam 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 Nigam, as aforesaid from any money due or which may become due to the contractor or recover the same as debt from the contractor.

### **18.4 WORKMEN'S COMPENSATION INSURANCE**

This insurance shall protect the Contractor against all claims applicable under the Workmen's Compensation Act, 1948 (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 Workmen's Compensation Act, 1948. The liabilities shall not be less than :

Workmen's Compensation : As per statutory provisions

Employee's liability : As per statutory provisions

**19. TESTS AT SITE**

- 19.1 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.
- 19.2 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.
- 19.3 Purchaser reserves the right to carry out any site tests he may decide upon at his own expenses. In case equipment/material is not found as per purchase order all expenses incurred during the testing will be to supplier's account and material shall be replaced by supplier at site free of cost.

**20. LIABILITY FOR ACCIDENTS AND DAMAGES.**

- 20.1 The contractor shall be responsible for loss, damage or depreciation of the plant until the same is taken over or is deemed to have been taken over provided always that the contractor shall not be responsible for any such loss, damage and depreciation occurring during such period that the plant is operated by the purchaser's staff prior to being taken over in accordance .
- 20.2 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 but not from any other cause.
- 20.3 Provided that the contractor shall not be liable for any loss of contract or any other claim made against the purchaser not already provided for in the contract, not for any injury or damage caused by or arising from the acts of the purchaser or of any other person due to circumstances over which the contractor has no control, he shall his total liability for loss damage or injury under this clause exceed the total value of the contract.
- 20.4 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 Workmen'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.

**21. PRICES AND TERMS OF PAYMENT:**

- 21.1 The prices shall be quoted for execution of work in the manner as desired in the „G“ schedule on firm basis in all respect 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.

21.2 Bill shall be presented by contractor for each item of work separately as per schedule of prices. Subject to any deduction which the purchaser may be authorized to make in accordance with the terms of the contract, the contractor shall on presentation of bills and the certificate of the Engineer, be entitled to payment generally as follows:-

- (i) 90%(Ninety percent )payment for the erection works shall be made to the contractor on submission of bills to the concerned circle Accounts Officer (O&M) of Ajmer Discom.
- (ii) Balance 10%(ten percent) payment will be released after ascertaining satisfactory performance of the work for a period of 12 month from the date of completion & accepted by the engineer or after furnishing a performance bank guarantee to extent of 10% of the contract value, subject to completion of the contractual formalities incorporated in the work order and after effecting recovery of all dues from the contractor under the contract.

**22. 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 purchaser duly supported by a certificate of the Engineer. The purchaser will take all possible effort to make payment to the contractor within 30 days. But in case of delay payment the purchaser shall not be liable to pay any interest on the outstanding amount to the contractor.

**23. 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.

**24. DEATH, BANKRUPTCY ETC.**

24.1 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.

- 24.2 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/ organisation 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.

**25. 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.

**26. 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.

**27. 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.

**28. 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 Ajmer (Rajasthan) India. 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 Ajmer only and no court other than courts at Ajmer (Rajasthan) shall have jurisdiction to entertain or try the same.

**29. CONSTRUCTION OF CONTRACT:**

The contract shall in all respects be deemed to be and shall be constructed and shall operate as on Indian contract as defined in the Indian Contract Act, 1872 and all payments there under shall be made in Rupees unless otherwise specified.



# **AJMER VIDYUT VITRAN NIGAM LTD.**

OFFICE OF THE SUPERINTENDING ENGINEER (TW)  
Makadwali Road , Vidyut Bhawan , Panchseel Nagar, Ajmer 305001

## **TECHNICAL SPECIFICATIONS OF LABOUR RATE CONTRACT**

### **Section III(A)**

#### **1. SCOPE**

The bid is invited for finalization of Labour Rate Contract for execution of various electrical works i.e. 33/11 KV GSS/33 KV Line/ 11KV Line/11.4 KV sub-station/ LT Line/ Undergrounding cabling, Transportation of various Items, replacement of transformers , fabrication of various steel items ,installation of capacitors , installation of metering instrument etc., dismantling of lines , maintenance of lines and sub-stations, laying of AB cables ,change of meters, change of service lines, installation of capacitors etc. in the jurisdiction of AVVNL

#### **1.1 GENERAL INFORMATION**

- (i) The specification covers preliminary route survey, submission of report for approval route survey including route alignment and pole spotting / optimisation of pole location and preparation of final schedule of equipment and quantity required for erection, commissioning and maintenance 33 KV / 11 KV/ LT lines, under ground cables and 33/11 KV S/S, 11/0.4 KV S/S, 6.35/0.24 KV S/S etc. on the basis of labour rate contract. The supply of all type of line & sub-station materials required for completion of above works shall be made available by the Nigam except the items specifically mentioned in the BSR / work order which shall be arranged by the contractor.
- (ii) Re conductoring of existing 33 KV / 11KV / LT lines and new lines which, shall include Erection of poles, earthing, fixing of insulators, guy wire for LT pole support, stringing of conductors and earth wires along with all necessary line accessories and testing and commissioning of the erected lines
- (iii) The various items of work(s) are described very briefly in the B.S.R.(Provisional).
- (iv) The item rates quoted shall include minor details which are obviously and fairly intended, and which may not have been included in B.S.R but are essential for the satisfactory completion of the various works.
- (v) The item rate(s) quoted shall be inclusive of deployment of all plant equipment, men, material, skilled & unskilled labour etc. essential for satisfactory completion of various works.
- (vi) All measurements for payment shall be in S.I. units. Lengths shall be measured in metres corrected to two decimal places. Areas shall be computed in square metres & volume in cubic meters, rounded off to two decimals.
- (vii) The contractor shall indicate in their offer, the sets of stringing equipment he is having in his possession.

#### **2. QUALIFYING REQUIREMENT OF BIDDERS**

The shall be governed as per section IV “Pre qualification requirement”

### **3. PROJECT MANAGEMENT AND SITE SUPERVISION:**

- a) The Contractor shall be responsible for the overall management and supervision of works. He shall provide experienced, skilled, knowledgeable and competent personnel for all phases of the project, so as to provide the Owner with a high quality system.
- b) The Contractor shall be responsible for adequate training of Owner's operation and maintenance personnel so as to be able to operate & maintain the project and its components properly, safely and efficiently over a long period of time.
- c) The Contractor's supervisory personnel shall provide operation and maintenance assistance during the warranty period.

### **4. CHECKING AND SUPERVISION OF THE WORK:**

Erection and commissioning works executed by the contractor shall be checked and supervised at the site by the concerned Junior Engineer/Assistant Engineer/ Executive Engineer and higher authorities of the Nigam as and when required.

### **5. CONSTRUCTION OF 33KV, 11KV & LT OVERHEAD POWER LINES**

#### **i) Details of Line Routes**

After receipt of work order the contractor may visit the line route to acquaint themselves with terrain etc. of the proposed line.

#### **ii) Route Survey and Optimization of Pole Location**

Route survey including pole spotting shall have to be carried out by the Contractor as per the items of central labour rate BSR 2014 chapter-I. The Contractor should note that Owner will not furnish the topographical maps prepared by Survey of India but will make available any assistance that may be required in obtaining the same. The route of line must be shortest and technically feasible.

Efforts should be made as far as possible to propose the route close to the road for easy approach during construction and maintenance. The length of line shall also be considered while proposing the route to limit the cost of line. The rough and difficult country side, urban development areas, areas of natural hazards and parallel path with telephone lines should be avoided.

#### **iii) Pole Spotting**

While locating the poles on the line, the following shall be borne in mind:

##### **(a) Span**

The number of consecutive spans between the section points shall be as per relevant standards/ instructions of Engineer at site.

##### **(b) Road Crossing**

At all important road crossings, the poles shall be fitted with Strain type insulators but the ground clearance(s) 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 IE rules. The correct ground clearance for various category & locations of lines are given as under.

S.No.	Location	Category of Voltage		
		Low & Medium	11KV	33KV & high
1	Lines erected across the street.	5.8 M	6.1M	6.1M
2	Lines erected in rural areas	4.6 M	5.8M	6.1M
3	Lines erected along a street	5.5 M	5.8 M	6.1 M
4	Lines erected other than along or across the street	4.6 M	4.6 M	5.2 M
5	Line passing over roof of building	2.5 M	3.7 M	3.7 M

Note: For all lines the span length should be as under.

S.No	Type of span	Weasel/ABC	Dog/Raccoon
a)	Road crossing	24M	20M
b)	Along road	45M	45M
c)	Anywhere else	90M	75M

#### (c) 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 following are the important features of the prevailing regulations (revised in 1987);

- (i) The crossing shall normally be at right angle to the railway track.
- (ii) No crossing shall be located over a booster transformer, traction switching station, traction substation or a track cabin location in an electrified area. The approval for crossing railway track shall be obtained by the Owner from the Railway Authority.

#### (d) 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 be counted towards delay in execution.

#### (e) Clearance from Electrical inspector

Construction of the line shall be done so as to meet the requirements of Indian Electricity Act / Indian Electricity Rules 1956 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.

**(f) 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, 1956 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 Contractor.

**(g) Telecommunication 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 incharge of the telecommunication system. On a request from the Contractor, the permission of the telecommunication authority may be obtained by the Owner. 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. The vertical clearance between power line and telecommunication line for 33KV/11KV and LT Line(s) should be at least 1830 mm and 1525 mm from lowest live conductor and 1220 mm from the guard wire of power line. These clearances are as per the standard code of practice adopted by the P.T.C.C.

**(h) Details Enroute**

All topographical details, permanent features, such as trees, building etc. on either side of the alignment shall be detailed on the route span.

**6. CLEARANCE FROM GROUND, BUILDINGS, TREES ETC.**

Clearance from ground, buildings, trees and telephone lines shall be provided in conformity with the Indian Electricity Rules, 1956 as amended upto date.

Any way leave which may be required by the Contractor, shall be arranged by the Owner as required by work programme.

Payment of compensation towards the clearances etc, will be the responsibility of the Owner.

However it should be kept in mind that while crossing another power line, the lower voltage line should be underneath. The lower line should be crossed at mid span, and upper line's support should be nearest to the crossing. The minimum clearance between the bottom conductor of upper line and top conductor of lower line should be at least 2440 mm upto 33KV line.

**7. FINAL SCHEDULE**

The final schedule indicating location of poles, angle of deviation, road crossing and other details shall be submitted for the approval of the owner. After approval, the Contractor shall submit six more sets of the approved reports along with one set of reproducible of final profile drawings to the Owner for record purpose. Final contract price shall be based on reconciliation of quantity of items, certified by owner's representative.

## **8. STATUTORY REGULATIONS AND STANDARDS i) Statutory Regulations**

The Contractor is required to follow local statutory regulations stipulated in Electricity (Supply) Act 1948, Indian Electricity Rules 1956 as amended and other local rules and regulations referred in this specification.

### **ii) Reference Standards**

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

Other internationally accepted standards which ensure equal or better performance than those specified shall also be accepted, subject to prior approval by the Owner.

## **9. POLE ERECTION**

### **i) General**

The scope of erection work shall include the cost of all labour, tools and plants such as stringing equipment and all other incidental expenses in connection with erection and stringing work. The contractor shall indicate in the offer the sets of stringing equipment as available with him which shall be of sufficient capacity to string Weasel/Rabbit/Dog/panther Conductor.

The Contractor shall be responsible for transportation to site of all the materials to be provided by the owner as well as proper storage, safe custody, loss or damage and preservation of the same at his own cost, till such time the erected line is taken over by the Owner. The contractor shall maintain and render proper account of all such materials. The Contractor shall reimburse the cost as per stores issue rate of any of the materials lost or damaged during storage and erection.

The Contractor shall set up required number of stores along the line and the exact location of such stores shall be discussed and agreed upon with the Owner. Owner supplied items shall be dispatched to the stores set up by the Contractor. Unloading, loading and transportation to the stores shall be the entire responsibility of the Contractor.

Payment for stringing shall be done on the basis of per kilometer.

### **ii) Erection of Poles**

The pole pit should be of size 1.2 m x 0.6 m x depth, where depth is approx equal to the 1/6<sup>th</sup> of the height of the respective pole in all types of soil laterite / hard rock. Excavation of pole pits shall be as per requirement of work order and according to the labour rate BSR items. The pits should be excavated along the direction of the line and supports to be erected alignment along the line so that faces of poles are perfectly parallel to each pole. This is very important, otherwise at the time of stringing of conductor the twisting will take place in the poles and cross arms which is a major

factor for falling of line during the storms. D.P. structures are to be used where the angle of deviation is more than 10 degree. Guys should be provided on i) Angle location ii) Dead end location iii) T-off points iv) At D.P. structures v) At important crossings.

The pole is to be erected in alignment with utmost care and the excavated earth should be back filled properly by ramming and concreting in the ratio 1:2:4 concreting is to be measured separately.

#### 10. **ERECTION OF STAY SETS**

It includes excavation of pit size 0.75 x 0.5 x 1.35/1.6 mtr. in all kinds of soil laterite /hard rock. Providing of stay at an angle of 45 degree with ground and in no case of angle should be more than 60 degree by using G.I. stay wire, stay insulator, Turn buckle, 1 hook and fixing the same to pole with set of stay clamps with G.I. bolts / nuts and embedding stay plate and rod by excavated soil with ramming and concreting in the ration 1:2:4.

The entire stay rod leaving the top 10 cm with plate should be embedded in the pit with an angle between 30 to 45 degrees of stay wire with the pole. The stay pit should be filled with concreting of ratio 1:2:4. The G.I. stay wire should be used with a break insulator at a height of 5 mtr above ground level with G.I. turn buckle.

The correct no. of stays to be provided at an angle points as per REC standards as given below :

S. No	Angle of Choice of Deviation	Weasel & Rabbit support 45		Raccoon		Dog	
		From Ground	From Ground	60	45	60	45
1	Upto 10 Single pole	2	2	2	2	2	2
2	Above 10 Double Pole & upto 30	2	2	2	2	2	3
3	Above 30 Double Pole & upto 45	2	2	3	3	3	4
4	Above 40 Double Pole & upto 60	2	3	3	4	4	5
5	T-Off Single Pole	2	2	2	3	3	4

It is a general guide line and if adopted during the erection works the damage to support and lines will be minimized. However, decision of site engineer shall be final.

#### 11. **INSULATOR FIXING**

Pin insulators shall be used on all poles and Strain insulator on angle and dead end poles. Damaged insulators and fittings, if any, shall not be used. Prior to fixing, all insulators shall be cleaned in a manner that will not spoil, injure or scratch the surface of the insulator, but in no case shall any oil be used for that purpose. Torque wrench shall be used for fixing various line

materials and components, such as suspensions clamp for conductor, wherever recommended by the manufacturer of the same.

## **12. HANDLING OF CONDUCTOR AND EARTH WIRE**

### **i) Running Out of the Conductors**

The contractor shall be entirely responsible for any damage to the poles or conductors during stringing. The conductors shall be run out of the drums from the top in order to avoid damage.

A suitable braking device shall be provided to avoid damaging, loose running out and sinking of the conductors. Care shall be taken that the conductors do not touch and rub against the ground or objects, which could scratch or damage the strands.

The sequence of running out shall be from the top to down i.e. the top conductor shall be run out first, followed in succession by the side conductors. Unbalanced loads on poles shall be avoided as far as possible. Wherever applicable, inner phase of line conductors shall be strung before the stringing of the outer phases is taken up.

When lines being erected run parallel to existing energised power lines, the Contractor shall take adequate safety precautions to protect personnel from the potentially dangerous voltage build up due to electromagnetic and electrostatic coupling in the pulling wire, conductors and earthwire during stringing operations.

The Contractor shall also take adequate safety precautions to protect personnel from potentially dangerous voltage build up due to distant electrical storms.

### **ii) Repair to conductors**

The conductor shall be continuously observed for loose or broken strands or any other damage during the running out operations. Repair to conductors, if necessary, shall be carried out with repair sleeves. Repairing of the conductor surface shall be carried out only in case of minor damage, scuff marks, etc. The final conductor surface shall be clean, smooth and free from projections, sharp points, cuts, abrasions, etc.

The Contractor shall be entirely responsible for any damage to the poles during stringing.

### **iii) Crossings**

Derricks or other equivalent methods ensuring that normal services need not be interrupted nor damage caused to property shall be used during stringing operations where roads, channels, telecommunication lines, power lines and railway lines have to be crossed. However, shut down shall be obtained when working at crossings of overhead power lines. The Contractor shall be entirely responsible for the proper handling of the conductor, earthwire and accessories in the field.

### 13. STRINGING OF CONDUCTOR AND EARTH WIRE

Includes spreading of conductors without any damage and stringing with proper tension without any kinks / damage including binding of conductor at pin points, jumpering at cut points etc. The ground & line clearances at road crossings along roads, L.T. crossings & other crossings shall be as per the relevant I.E. rules.

The stringing of the conductor shall be done by the standard stringing method.

The Bidder shall give complete details of the stringing methods he proposes to follow.

Prior to stringing the contractor shall submit the stringing charts for the conductor and earth wire showing the initial and final sags and tension for various temperatures and spans, along with equivalent spans in the lines for the approval of the Owner.

Conductors or earth wires shall not be allowed to hang in the stringing blocks for more than 96 hours before being pulled to the specified sag.

Conductor creep are to be compensated by over tensioning the conductor at a temperature of 26<sup>0</sup> C lower than the ambient temperature or by using the initial sag and tensions indicated in the tables.

### 14. JOINTING

When approaching the end of a drum length at least three coils shall be left in place when the stringing operations are stopped. These coils are to be removed carefully and if another length is required to be run out a joint shall be made as per the recommendations of the accessories manufacturer.

Conductor splices shall not crack or otherwise be susceptible to damage in the stringing operation. The Contractor shall use only such equipment / methods during conductor stringing which ensures complete compliance in this regard.

All the joints on the conductor and earthwire 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 anticorrosive compound if required and as recommended by the manufacturer, before the final compression is carried out with the compressors.

All the joints or splices shall be made at least 30 metres away from the pole. No joints or splices shall be made in spans crossing over main roads, railways and small river spans. Not more than one joint per sub conductor per span shall be allowed. The compression type fittings shall be of the self centering type or care shall be taken to mark the conductors to indicate when the fitting is centered properly. During compression or splicing operation, the conductor shall be handled in such a manner as to prevent lateral or vertical bearing against the dies. After compressing the joint, the aluminium sleeve shall have all corners rounded, burrs and sharp edges removed and smoothed.



During stringing of conductor to avoid any damage 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.

#### **15. TENSIONING AND SAGGING OPERATIONS**

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 earthwire. 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 rechecked and adjusted, if necessary, before transferring the conductors from the running blocks to the suspension clamps. The conductor shall be clamped within 36 hours of sagging in.

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.

At sharp vertical angles, conductor and earthwire sags and tensions shall be checked for equality on both sides of the angle and running block. The suspension insulator assemblies will normally assume verticality when the conductor is clamped.

Tensioning and sagging operations shall be carried out in calm weather when rapid changes in temperature are not likely to occur.

#### **16. CLIPPING IN**

Clipping of the conductors into position shall be done in accordance with the manufacturer’s recommendations.

Jumpers at section and angle towers shall be formed to parabolic shape to ensure maximum clearance requirements.

Fasteners in all fittings and accessories shall be secured in position. The security clip shall be properly opened and sprung into position.

#### **17. FIXING OF CONDUCTORS AND EARTHWIRE ACCESSORIES**

Conductor and earthwire accessories shall be installed by the Contractor as per the design requirements and manufacturer’s instruction within 24hours of the conductor / earthwire clamping. While installing the conductor and earthwire accessories, proper care shall be taken to ensure that the surfaces are clean and smooth and that no damage occurs to any part of the accessories or of the conductors.

#### **18. ROAD CROSSING GAURDINGS**

The contractor shall provide guarding of the power lines at the following crossing; (a) Road (b) Tele-communication line (c) other power line. The guarding shall consist of GI guard cross arm of length 2.5 mtrs made out of 75x40x6 mm channel. Guarding shall be erected with ground & line clearances as per the I.E. rules. The guarding shall be provided with GI wire 8 Swg, binding wire & suitable I bolt & nut bolts for cross arm to cross arm. The spacing between each guard loop between two poles shall be at a maximum distance of 1.5 mtrs apart & conforming to the relevant specifications as per the I.E. rules. The cross lacing should be provided at a distance of 0.6 M each at crossing and 1.8 m at all other area. For telecommunication line the clearance from guard wire should be minimum 1220 mm. As far as possible the crossing for road and other lines should be at right angles but not less than 60<sup>o</sup> in any case. The cross lacing should be provided on the guard wires so as to cover 1830 mm distance from the extreme conductor of the power line on both sides the guard wires should be tightened by means of eye bolts at the ends so that proper tension is applied on all the guard wires equally. The poles/supports should have stays provide on the opposite side of the span provided with guarding. Both the supports provided with guard wires should invariably be earthed on both ends to ensure that the line will be switched off in case of breaking of the conductor and no danger is there beneath the line. The guard wire should be connected with the running earth wire by means of suitable connectors to ensure the proper earthing of line and continuity of earth wire.

#### **19. EARTHING OF LINE**

As per Indian electricity Act at least three earthing of the line are to be done in one km. length. This is for the lines where continuous earth wire runs along the line. Otherwise each pole has to be earthed. It should be ensured that continuous earth wire on each pole is connected to cross arm and top hamper by means of a piece of G.I. earth wire. The earthing is to be done using stay wire and connected to the earth wire clamp. This will prevent passing any leakage current through the P.C.C. support at the time of failure / puncture of insulator, which may otherwise damage the steel wire inside pole and breakage of support may take place.

Earthing is to be done using M.S.Rod 20 mm dia each 3 m long and driving into earth by mechanical means as per approved design, drawing & specification.

#### **20. REPLACEMENT**

If any replacement are to be effected after stringing and tensioning or during maintenance e.g. replacement of cross arms, the conductor shall be suitably tied to the pole at tension points or transferred to suitable roller pulleys at suspension points.

#### **21. PERMITTED EXTRA CONSUMPTION OF OWNER SUPPLIED MATERIALS.**

The Contractor shall be supplied with conductor as per the following norms:

Qty. of Conductor = line length as per detailed survey x 3 phases x 2 (for Double Circuit Line)

The Contractor shall make every effort to minimize breakage, loss and wastage of the line materials during erection. However, the Contractor shall be permitted an extra consumption of Owner supplied materials up to the limits specified as below.

Conductor and Earthwire	1.5 % (For sag binding & wastage)
Hardware & Accessories	1 %
Insulators	1 %

In case of conductor, the permitted extra consumption limit is inclusive of sag, jumpering, damage, loss and wastage etc. The Contractor shall be required to return to the Owner empty conductor drums and shall not dispose of the same.

A conductor drum which has been opened by the contractor shall not be taken back by owner and the unused conductor in such drums may be treated as waste permissible within the overall limits as above.

The Contractor shall return to the Owner all owner supplied material not incorporated in the works, except those permitted by Owner as wastage as above. Otherwise, the Contractor shall pay in respect of such excess materials, which he is unable to return, at rates corresponding to the actual cost of procurement plus 50% thereof.

## **22. 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 erection and stringing have been done strictly according to the specifications and as approved by the Owner. The contractor shall be responsible to provide all necessary testing and commissioning personnel, tools and plant, test equipments etc. All the works shall be thoroughly inspected in order to ensure that:

- a) Sufficient backfilled earth covers each foundation pit and is adequately compacted.
- b) All poles are used strictly according to final approved drawing and are free of any defect or damage whatsoever.
- c) The stringing of the conductors and earthwire has been done as per the approved sag and tension charts and desired clearances are clearly available;
- d) All conductor and earthwire accessories are properly installed;
- e) All other requirements for completion of works such as fixing of danger plate and anticlimbing device have been fulfilled,
- f) Wherever required, the proper revetment (erosion protection) is provided;
- g) The insulation of the line as a whole is tested by the Contractor through provision of his own equipment, labour, etc, to the satisfaction of the Owner;
- h) All poles are properly grounded;
- i) The line is tested satisfactorily for commissioning purpose.

**23. CIVIL WORKS:**

- a) The civil works to be executed by the Contractor in accordance with specification shall include supply and construction of all items given at Annexure –I for transmission lines and all other items required for completing the project work.
- b) For transmission lines, it shall include detailed route survey, route marking, survey & selecting of pole/pole locations, route clearance/tree cutting wherever necessary, geo-technical investigation of soil as required, classification of soil, measurement of soil resistivity.

**24. PAINTING MATERIALS**

All the metal parts accept G.I. parts and all line and sub-station structure are to be painted with one coat of red oxide and one coat of aluminium paint to the satisfaction of the Engineer In-charge. As per the requirement of the work order(s).

**25. DRAWINGS**

The following list of the documents and drawings shall be approved by the Owner.

- a) Work Schedule (Master Network) Plan.
- b) Detailed survey report showing ground clearance and pole locations.
- c) Stringing procedure and stringing chart.

**26. INSTALLATION, ERECTION, COMMISSIONING OF 33/11 KV,11/0.4 KV & 6.35/0.24 KV SUB-STATIONS:**

**(A) 33/11 KV Sub-Stations**

The 33/11 KV sub-station shall be constructed keeping in view of the latest provisions under Indian Electricity rules, REC construction standards and as per the lay out given for provision of installation of 2 No. Transformers. One No. 33/11 KV transformer to be installed now & one No. 33/11 KV transformer to be kept as spare/provided later. 4 Nos.of 11 KV feeders to be emanated, from the proposed sub-station the minimum clearance as shown in the lay out shall be strictly adhered to. All non current carrying parts in the switch yard shall be effectively grounded with duplicate solid connections with earth mat. All lightning arrestors shall be grounded separately in addition to the earth mat. All joints in mesh earthing system shall be made by welding except those points with bolted connections earthing shall confirm to ISI 3043 or latest version there on. The resistance of earth system shall be less than 10ohm. All the conductors of the 33 KV & 11 KV bus bas shall be equally & properly sagged. All electric connections in bus bar and other equipments shall be tightened properly. All supports in the sub-station shall remain 1/6 on its length under the ground. Although fabricated structures shall be supplied. However fabrication & drilling of holes in channel, angle, plate shall be done at site as needed. The horizontal and vertical clearance shall be strictly maintained as shown in the

approved lay out given. The main work involved in construction of sub-station and details there of is as under:-

**(i) Erection of 33 KV four poles structure:-**

- (a) Digging of four Nos. of pits to erect 9 Meters PCC poles and to erect poles as per approved lay out given in such a way so that level of all the four poles remain the same. After erection the earth pits be refilled and rammed properly.
- (b) Fixing of top channels on all the four sides tightly and drilling and fabrication shall be done as needed.
- (c) Fixing of G.O. channel on all the four sides and level thereof.
- (d) Installation of 33 KV in coming and out going G.O.'s complete in all respects.
- (e) Laying of 33 KV buss bar Dog conductor at top channels by fixing Disc. Insulators & hardwares ass per lay out and jumpering of 33 KV G.O.'s.
- (f) Grounding of G.O. structures and channel fittings with M.S flat to the earth mat.

**(ii) Providing of 33 KV main bus bars :-**

- (a) Digging of four Nos. of pits and erection of 9 meters PCC poles as per lay out given. Refilling and ramming of pits after erection.
- (b) Fixing of M.S. channels (100x50x6mm) on top of the D.P.'s and fitting of cross bracing of the D.P.'s and leveling thereof.
- (c) Digging of four Nos. earth pits for 33 KV stays and providing 4 Nos. 33 KV stays at each D.P. poles as per lay out given.
- (d) Mounting of disc. Strings and to fix hardwares for Dog. Conductor to lay down 33 KV main bus bar of Dog conductor with proper and equal sag.
- (e) Grounding of D.P structures with M.S. Flat.
- (f) Jumpering of main bus to 33 KV G.O. switch at four poles.

**(iii) Providing of 33 KV lightning arrester :-**

- (a) Digging of 2 Nos. of pits for erection of 2 Nos. of pole pieces and refilling of pits after erection of pole pieces as per lay out given.
- (b) Fixing of channel structure of top of the pole pieces and levelling thereof.
- (c) Mounting of 3 Nos. 33 KV LA's on the channels as fixed above.
- (d) Jumpering of L.A.'s from main bus.
- (e) L.A.' s shall be properly grounded separately in addition to the main earth pit.

**(iv) Providing 33 KV G.O. Switch :-**

The No. of 33 KV transformers" G.O. switch shall be installed according to the No. of transformers to be commissioned as per the requirement of work order.

- a) Digging of 2 Nos. of pits for each G.O. set to erect the pole pieces and refilling and ramming of pits.
- b) Erection of two Nos. of poles pieces for each G.O set and fixing of channel structures on top of the pole pieces leveling thereof.

- c) Assembling of 33 KV G.O. switches and installation thereof.
- d) Jumpering of 33 KV G.O. switches to the 33 KV main bus.
- e) Grounding of 33 KV G.O. switches non current carrying parts and structure thereof.

**(v) Providing 33 KV Horn Gap Fuses :-**

The Nos. of 33 KV Horn Gap Fuse sets shall be in accordance with the 33/11 KV transformers installed as per the requirement of work order.

- (a) Digging of two Nos. of earth pits for each horn gap sets and erection of 2 Nos. PCC pole pieces and refilling and ramming of the pits.
- (b) Fixing of 33 KV Horn gap structures on top of the PCC pole pieces and levelling thereof.
- (c) Assembling of 33 KV Horn gap fuses as per drawing supplied.
- (d) Mounting of 33 KV Horn gap fuse sets on the above mentioned structures.
- (e) Jumpering from 33 KV Horn gap fuse sets to 33 KV G.O. switch and to 33/11 KV transformer.
- (f) Setting of Horn gap as per drawing.
- (g) Grounding of Horn gap structure with the earth mat.

**(vi) Providing of 33/11 KV Transformer Gantry :-**

- (a) The Nos. of transformer gentries shall be in accordance with the No. of transformers installed as per the requirement of work order.
- (b) Erection of 2 Nos. of 8 Mtr. PCC poles and refilling and ramming of pits.
- (c) Fixing channels on top of the pole for each gantry and leveling thereof.
- (d) Fixing of discs (2 Nos. disc on each phase) on 11 KV side and hardware for Dog conductor on the fitting.
- (e) Bus bar of Dog conductor from transformer gantry to 11 KV Bus bar structure.
- (f) Grounding of transformer gantry structure to the earth mat.

**(vii) Erection of 11 KV Bus bar structure :-**

The 11 KV bus bar shall be sectionalized in accordance with the transformers to be commissioned and shall be installed as per lay out given :-

- (a) Digging of earth pits  $(2n+2)$  Nos. ( $n$  is the No. of 11 KV Bays proposed  $n=4$ ) and erection of  $2n+2$  Nos. of 8 Mtr. PCC poles at the same level.
- (b) Refilling and ramming of earth pits.
- (c) Fixing of top channels around the 11 KV bus and fixing of channels at sectionalizing points and leveling thereof.
- (d) Fixing of channel structures to install 11 KV G.O.'s for each out going feeders and 11 KV transformers" side for incoming G.O.'s and leveling thereof.
- (e) Mounting of disc. Strings (2 Nos. disc. in each phase each side) and hardware with eye bolt for Dog. Conductor and laying of 11 KV Bus bar with proper and equal sag.
- (f) Assembling of 11 KV G.O's (No. of G.O. sets = No. of feeders proposed + No. of transformers to be commissioned + 1 Nos. for station transformer) switches.
- (g) Mounting of 11 KV G.O. switches on the structures.

- (h) Fixing of 11 KV Horn Gap fuse set channel.
  - (i) Jumpering on 11 KV transformer G.O and outgoing G.O's from the 11 KV bus bar and 11 KV outgoing G.O. to 11 KV Horn Gap fuse set.
  - (j) Fixing of 11/0.4 KV transformer structure and installations of 11/0.4 KV station transformer.
  - (k) Jumpering of 11 KV station transformer G.O. to main bus and to station transformer. Installation of Horn gap fuses for fuses for station transformer.
  - (l) Grounding of 11 KV Bus structure to earth mat and various points. One connecting lead shall be given for each section.
  - (m) Fixing of 11 KV lightening arrestors on each out going 11 KV feeder.
  - (n) Grounding of 11 KV L.A.'s with earth mat and separate grounding of L.A.'s be also done.
- (viii) Erection of 11 KV O/G feeder D.P.'s :-**

The O/G feeder D.P.'s shall be erected in front of 11 KV O/G bays as per lay out:-

- (a) Digging of 2 Y No. of pits (Y is the No. of O/G 11 KV feeders proposed i.e. Y=4 Nos.) and erection of 2 Y Nos. of 8 Mtr. Poles as per lay out and refilling and ramming of earth pits.
- (b) Fixing of D.P. channel structures.
- (c) Mounting of discs (2 Nos. Disc in each phase) and hardware for Dog conductor.
- (d) Installation of 11 KV G.O. on top of D.P. structure.
- (e) Laying of dog conductor from 11 KV bus to proposed D.P.
- (f) Jumpering of O/G feeders to 11 KV Horn Gap fuse sets.

### **(B) Erection of 11/0.4 KV Sub-Station**

Pole mounted 11/0.4 KV S/S to be erected as per drawing i.e. G.O. and Horn Gaps and lightening arresters are provided on the S/S. The location for the pole mounted S/S has to be provided as per the load requirements. But it should be ensured that all live parts are above 12" from the ground. It should be ensured that if the transformer is so placed that live parts are below 12" (3600 mm) of height then proper fencing with Gate is provided. The bus bar on L.T. side should be at least at a height of eight feet above the ground.

The incoming supply on L.T. side should be provided with a suitable switch fuse units and all the out going feeders should also be provided with switch fuse units. The L.T. power cables for Incoming and Outgoing circuits should be connected to switches after providing proper thimbles or cable lugs.

### **(C) Erection of 6.35/0.24 KV Sub-Station**

Pole mounted 6.35/0.24 KV S/S to be erected as per drawing. The location for the pole mounted S/S has to be provided as per the load requirements. But it should be ensured that all live parts are above 12" from the ground. It should be ensured that if the transformer is so placed that live parts are below 12" (3600 mm) of height then proper fencing with Gate is provided. The bus bar on L.T. side should be at least at a height of eight feet above the ground.

The incoming supply on L.T. side should be provided with a suitable switch fuse units and all the out going feeders should also be provided with switch fuse units. The L.T. power cables for Incoming and Outgoing circuits should be connected to switches after providing proper thimbles or cable lugs.

## **27. EARTHING**

Earthing of lines & 11/0.4 KV substations as per REC Construction standards using stay wire/ G.I. Wire with M.S.Rod 20 mm dia. each 3 m long and driving into earth by mechanical means as per approved design, drawing and specifications. Earthing of 6.35/0.24 KV S/S by Providing 4 Nos. of earthing made with M.S.Rod 20 mm dia, electrodes (black) of 3 Mtr. Length to be driven in earth by mechanical means and jointing through transformers body, 11 KV neutral ,LT neutral & LA with MS flat 40x5 mm ( black 32 mtr.) .The MS Flat will be welded at the top of the electrode. For Lightning arrestor direct and separate connections are to be provided independently. Neutral points shall be earthed by not less than two separate distinct connections with earth,m each having its own electrodes at the sub-station and will be earthed at any other point provides no interference is caused by such earthing. Transformer body, AB switch body & handle, DO fuse handle & body and channels and pole structures are separately earthed with the earth electrode 4mm diameter (8 SWG) hot dip galvanized wire should be used for this purpose.

As far as possible, all earth connections should be visible for inspection. All connections shall be carefully made if they are poorly made or inadequate for the purpose, which they are intended, loss of life or serious personal injury may result.

Each earthing system shall be so designed, that, the testing of individual earth electrodes is possible.

It is recommended that the value of any earth system resistance shall be such as to confirm with the degree of shock protection desired. A drawing showing the main earth connections and earth electrodes be prepared for each installation. Measurement of each electrode earth resistance and the earth resistance of all three electrodes combined should be measured and recorded.

All material, fittings, etc., used in earthing shall conform to Indian Standard Specifications, wherever they exist.

## **28. STORAGE OF EQUIPMENT**

The Contractor shall provide and construct adequate storage shed for proper storage of equipment. Weather sensitive equipment shall be stored indoors. All equipment during storage shall be protected against damage due to acts of nature or accidents. The storage instruction of the equipment manufacturer/ Owner shall be strictly adhered to.



## 29. LAYING OF POWER CABLES:

The power cables are not used extensively in AJD and specially in rural areas. In urban areas also the power cables are used only in cases where it is not possible to draw O.H. lines. While finalizing the route of cable the following points should always be kept in mind.

- i) In urban areas the cable should be laid along the sides of roads.
- ii) The ground where cable is laid should not contain corrosive materials such as acids.
- iii) Care should be taken to keep the route of power cables away from electrified tracks (should not run parallel) otherwise stray current will pass through the sheath of cable and may corrode the armour/sheath of cable.
  - a) Laying of cable:
    - i) The power cable should be laid at least 0.9 M deep in ground.
    - ii) Should be atleast 0.6 M away from the foundation of any superstructure/and 2 M from trunk of any tree.
    - iii) Should be at least 100 mm away from any other power cable running along upto 11 KV and at least 250 mm away from 33 KV power cable.
    - iv) Should be atleast 0.5 M away from tele-communications cables as well as any pipe line running parallel to it. If the pipe line is carrying gas or petroleum product the distance should be atleast 1 M and should be laid 0.5 M deep underneath of any other pipe line while crossing the same.
    - v) The power cable should not be laid in Railway boundary in any case except with prior approval of Railway Authorities in writing. The cable should be at least 3 M away from un-electrified track and 10 M away from electrified track.
    - vi) Cables laid parallel to E.H.T. O.H. lines should have a clearance of atleast 10 M from the vertical plane passing through the outer most conductor.
    - vii) The power cables should have atleast 1 M clearance from the support of medium and high voltage line.
    - viii) The cables should be laid atleast 10 M away from the earthing electrodes of towers/ supports for all voltage, above 0.4 KV.
    - ix) The road crossing of the cable should be made through GI/cast Iron pipes extending 1 meter more than the width of road on both sides.
    - x) The crossing of power cable should be made with telecommunication cable by separating atleast 0.5 M thick earth and should be laid below the communication cable. Similarly the crossing of the power cable should be made keeping vertical separation as 0.5 M and higher voltage cable should go below.
    - xi) The bending radius of any power cable is very important for the life of cable. The minimum binding radius for power cable is 25 D (when D is diameter of power cable) for 11 KV and 30D for 33 KV power cable. For unarmoured/armoured PVC cable upto 1.1 KV the bending radius should be 12D.

**b) Trench excavation**

After the cable alongwith the accessories such as straight through cable jointing kits, cable end boxes, cable route markers etc. have been arranged and transported at site, the excavation of trenches should be undertaken.

Before excavation is allowed to be undertaken the other users such as PHED, P&T, PWD, Civil Authorities, local bodies and police etc. should be informed of the intention and work should be undertaken in the presence of those who wish to present so that they may take any precaution for protection of their services.

This is must because if material at site has not been arranged then the excavated earth will fall back in the trench as well as the side wall of trench may give way and the same may have to be re-excavated at the time of actual laying. Also the excavated trench if left in position it may lead to accidents. The trench for a single power cable should be 0.9 M deep and should be 350 wide at bottom, for every additional power cable to be laid alongwith this cable, the width of trench should be increased by 120 mm for every additional cable.

The good earth taken out of the excavation should be stored on one side and any aggregate of road surface, asphalt, concrete or crushed rocks should be stored away.

After trench is ready the bottom should be provided with a bed of sand of 75 mm and then cable should be put in place. After putting the cable 75 mm thick sand should again be provided. The same is required for providing the required soil thermal resistivity of; at the most 120 C/W. If the soil thermal resistivity is higher than this the cable may be over heated during dry season and may have adverse effect on life of cable.

When laying upper layer of sand on cable is complete bricks or stone pieces should be laid on the sand in such a way that the brick is laid across the trench and are laid side by side not leaving any gap in between. The stone slab should also be laid atleast 9" in width.

The back filling is now to be done in layers of 100 mm thick earth and making the same compact.

**c) Making joints:**

After the cables are laid, the cable end boxes and straight through joints should be made. While laying the cable it should be ensured that sufficient length at each end of cable is left so as to be sufficient for making three joints on end boxes. The extra length of cable should be carefully laid near the end point duly marked and keeping the bend radius in mind.

Now a days for power cables Nigam is mainly using XLPE cables, and the straight through joints are being used as epoxy filled joint and end terminations are generally epoxy type, Heat shrink type or push on type. The bitumen filled type cast iron cable boxes are out of date and normally not used.

Normally the instructions for preparation of cable ends for joints are mentioned on each type of cable boxes to be used but the following precautions should be taken:

- i) While jointing the cable the cores should be identified for same phase sequence and duly noted before starting the work.

- ii) The cable ends should invariably provided with lugs and properly crimped so that no hot spot is formed at the termination.
- iii) The metal sheath should be grounded without exception, external mechanical forces are applied to it while in service.
- iv) The work on the joint when started should be completed at a sheath and should not be left incomplete.
- v) All required tools and hands should kept clean before starting the work on joint. All accessories of standard design and proper size should be used.
- vi) All joints in side the box should be air light.
- vii) Cable markers should be fixed on the cable route at a distance of 100 or 150 M.
- viii) While connecting the end termination to O.H. line, the cable should be in a G.I. pipe upto the height of 2 m above ground to avoid mechanical injury while in service. The cable must be suitably clamped to the support at intervals preferably by wooden cleats to avoid tension at the end.

The cable should be tested for insulation resistance between phases & as well as with ground by means of D.C. Insulation tester. After ensuring the resistance cable can be charged. But permission of Electrical Inspector must be ensured before charging of the cables.

**30. CABLE SUPPORTS AND CABLE TRAY MOUNTING ARRANGEMENTS:**

Cable trenches in the control room are normally provided with embedded steel inserts on concrete floors/walls. The contractor shall secure supports by welding to these inserts or available building steel structures.

However, in cases where no such embedded steel inserts are available, the contractor shall have to secure the supports on walls or floors by suitable anchoring to no extra cost to the Owner. Details of fixing steel plates by anchor fasteners shall be decided during detailed engineering stage. The cable supports shall conform to the requirements.

Cable terminations and connections: The termination and connection of cables shall be done strictly in accordance with cable and termination kit manufacturer's instructions, drawing and/ or as directed by the Owner.

The contractor shall tag/ferrule the control cable cores at all terminations, as instructed by the Owner. In panels where a large number of cables are to be terminated and cable identification can be difficult, each core ferrule may include the complete cable number as well. Spare cores shall be similarly tagged with cable numbers and coiled up. All cable entry points shall be sealed and made

Vermin and dust proof. Unused openings shall be effectively closed. If the cable end box or terminal enclosure provided on the equipment is found unsuitable and requires modification, the same shall be carried out by the contractor with the approval of owner.

**31. Providing Consumer Service Connections:****i) Overhead service cables**

The L.T. mains should be provided with a D-loop on the conductor from where the service cable is to be taken and all connections be taken from D-loop only for service connection (In case of AB Cable proper clamps /connectors are to be provided). The overheads surface type cable is taken from D-loop by means of junction box or P.G. clamps before tightening the jumpers petroleum jelly should be applied on the conductor & clamp, so that proper joint is made. Also if the service cable is of copper, the joint should be made using a bimetallic connector or clamps otherwise the conductor will be damaged and likely to break. The S.L. is taken by binding on the catenary G.I. Wire having clamp on the support of mains and a hook on the wall of prospective consumer. Proper binding of the S. cable on the wire should be ensured so that no tension is taken by the cable. The min. height above ground for over head surface cable should be 16". For O.H. service line the supporting catenary G.I. wire should also be connected to earth on both sides.

From the hook to the meter the S.L. cable should be taken in a conduit pipe upto the back side of meter board/ incoming of the meter box and connected to meter, using proper size of thimbles. The outgoing cable will be taken to main cut out (Iron clad)/M.C.B. these cut outs/ M.C.B. will have proper size of fuses and sealed by Nigam. The supply now taken to main switch to be used by the consumer.

**ii) Underground cable**

As regards the underground service connection it should be ensured that the LT power cable is armoured and in no case un-armoured cable be allowed. The armour of the cable should be connected to earth wire at the pole and load side should be connected to the earth pit of the consumer. Similarly all metal clad switches meters, main switches should be properly earthed through a suitable connector to earth.

# **AJMER VIDYUT VITRAN NIGAM LTD.**

OFFICE OF THE SUPERINTENDING ENGINEER (TW)  
Makadwali Road , Vidyut Bhawan , Panchseel Nagar, Ajmer 305001

## **ERECTION CONDITIONS OF LABOUR RATE CONTRACT**

### **Section III (B)**

#### **1. GENERAL**

The following shall supplement the conditions already contained in the other parts of these specifications and document and shall govern the portion of the work of this contract to be performed at Site. The Contractor upon signing of the Contract shall nominate some responsible person as his representative at Site suitably designated for the purpose of overall responsibility and coordination 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. REGULATION OF LOCAL AUTHORITIES AND STATUTES**

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.

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. If 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. OWNER'S LIEN ON EQUIPMENT**

The Owner shall have lien on all equipment including those of the Contractor brought to the Site for the purpose of erection, testing and commissioning of the lines and sub-stations to be erected under the Contract. The Owner shall continue to hold the lien on all such lines and sub-stations throughout the period of Contract. No material brought to the Site shall be removed from the Site by the Contractor and/or his Sub-Contractors without the prior written approval of the Engineer.

#### **4. ACCESS TO SITE AND WORKS ON SITE**

Suitable access to the Site shall be afforded to the Contractor by the owner in reasonable time. In the execution of the works, no person other than the Contractor or his duly appointed representative, Sub-Contractor and workmen, shall be allowed to do work on the Site, except by the special permission, in writing of the Engineer or his representative.

## **5. CO-OPERATION WITH OTHER CONTRACTORS**

The Contractor shall co-operate with all other contractors or tradesmen of the Owner, who may be performing other works on behalf of the Owner and the workmen who may be employed by the Owner and doing work in the vicinity of the works under the Contract. The Contractor shall also arrange to perform his work so as to minimize, to the maximum extent possible, interference with the work of other Contractors and their workmen. Any injury or damage that may be sustained by the employees of the other Contractors and the Owner, due to the Contractor's work shall promptly be made good at his own expense. The Engineer shall determine the resolution of any difference or conflict that may arise between the Contractor and other contractors or between the Contractor and the workmen of the Owner in regard to their work. If the work of the Contractor is delayed because of the any acts of omission of another Contractor, the Contractor shall have no claim against the Owner on that account other than an extension of time for completing his Works. The Engineer shall be notified promptly by the Contractor of any defects in the other Contractor's works that could affect the Contractor's Works. The Engineer shall determine the corrective measures if any, required to rectify this situation after inspection of the works and such decisions by the Engineer shall be binding on the Contractor.

## **6. DISCIPLINE OF WORKMEN**

The Contractor shall adhere to the disciplinary procedure set by the Engineer in respect of his employees and workmen at Site. The Engineer 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 Engineer such employee has misconduct 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.

## **7. CONTRACTOR'S FIELD OPERATION**

The Contractor shall keep the Engineer 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 Engineer 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 Engineer 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. 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 Engineer is not intended to include review of Contractor's safety measures in, or of near the Work Site, and their adequacy or otherwise.

## **8. 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 Engineer 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 the 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 Clause 5 above 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.

## **9. EMPLOYMENT OF LABOUR**

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 on the work after darkness. No person below the age of eighteen years shall be employed.

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.

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

## **10. FACILITIES TO BE PROVIDED BY THE CONTRACTOR**

### **10.1 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 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.

## **10.2 First Aid**

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

## **10.3 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.

## **11. 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 layout the Works. Basic horizontal and vertical control points will be established and marked by the Engineer at Site at suitable points. These points shall be used as datum for the works under the Contractor. The Contractor shall inform the Engineer 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 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 at Contractor's expense.

## **12. FIRE PROTECTION**

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.

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. All the Contractor's supervisory personnel and sufficient number of workers shall be trained for firefighting 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. 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.

### **13. SECURITY**

The Contractor shall have total responsibility for all equipment and materials 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/equipments of the Contractor shall enter and leave the project Site only with the written permission of the Engineer in the prescribed manner.

### **14. CONTRACTOR'S AREA LIMITS**

The Engineer 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.

### **15. CONTRACTOR'S CO -OPERATION WITH THE OWNER**

In case where the performance of the erection work by the Contractor affects the operation of the system facilities of the Owner, such erection work of the Contractor shall be scheduled to be performed only in the manner stipulated by the Engineer and the same shall be acceptable at all times to the Contractor. The Engineer may impose such restrictions on the facilities provided to the Contractor such as electricity, water, etc. as he may think fit in the interest of the Owner and the Contractor shall strictly adhere to such restrictions and cooperate with the Engineer. It will be the responsibility of the Contractor to provide all necessary temporary instrumentation and other measuring devices required for startup and operation of the equipment systems which are erected by him. The Contractor shall also be responsible for flushing and initial filling of all the oil and lubricants required for the equipment furnished and erected by him, so as to make such equipment ready for operation. The Contractor shall be responsible for supplying such flushing oil and other lubricants unless otherwise specified elsewhere in documents and specification.

### **16. MATERIALS HANDLING AND STORAGE**

All the equipment furnished under the Contract and arriving at Site shall be promptly received, unloaded, transported and stored in the storage spaces by the Contractor. Contractor shall be responsible for examining all the shipment and notify the Engineer immediately of any damage, shortage, discrepancy, etc. for the purpose of Engineer's information only. The Contractor shall submit to the Engineer every week a report detailing all the receipts during the week. The Contractor shall be solely responsible for any shortages or damage in transit, handling and/or in storage and

erection of the equipment at Site. The Contractor shall maintain an accurate and exhaustive record detailing out the list of all equipment received by him for the purpose of erection and keep such record open for the inspection of the Engineer in Charge. All equipment 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 equipment without the specific written permission of the Engineer. The equipment stored shall be properly protected to prevent damage either to the equipment or to the floor where they are stored. The equipment from the store shall be moved to the actual location at the appropriate time so as to avoid damage of such equipment at Site. All the materials stored in the open or dusty location must be covered with suitable weatherproof and flameproof covering materials wherever applicable. If the materials belonging to the Contractor are stored in areas other than those earmarked for him, the Engineer will have the right to get it moved to the area earmarked for the Contractor, at the Contractor's cost. The Contractor shall be responsible for making suitable indoor storage facilities to store all equipment which require indoor storage. Normally, the electrical equipments shall be stored in the closed storage space. The Engineer, in addition, may direct the Contractor to move certain other materials, which in his opinion will require indoor storage, to indoor storage areas which the Contractor shall strictly comply with.

**17. CONSTRUCTION MANAGEMENT**

The field activities of the various contractors executing different contracts for the project, will be coordinated by the Engineer and the Engineer's 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 Engineer shall not be a cause for extra compensation or extension of time for the Contractor. The Engineer shall hold weekly meetings of all the Contractors working at Site, at a time and place to be designated by the Engineer. The Contractor shall attend such meetings and take notes of discussions during the meeting and the decisions of the Engineer shall be strictly adhered to in performing his Works. In addition to the above weekly meeting, the Engineer 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.

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. The Engineer 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.

**18. FIELD OFFICE RECORDS**

The Contractor shall maintain at his Site Office upto date copies of all drawings, specifications 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, specifications, 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 Engineer as desired by him at the time of inspection. The contractor shall work as per standard/drawing approved by the Nigam.

**19. CONTRACTOR'S MATERIALS BROUGHT TO SITE**

The Contractor shall bring to Site all equipments, components, parts, materials, including construction equipments, tools and tackles for the purpose of the Works under intimation to the Engineer. All such goods shall, from the time of their being brought vest in the Owner, but may be used for the purpose of the Works only and shall not on any account be removed or taken away by the Contractor without the written permission of the Engineer. The Contractor shall nevertheless be solely liable and responsible for any loss or destruction thereof and damage thereto.

After the completion of the Works, the Contractor shall remove from the Site under the direction of the Engineer the materials such as construction equipment, erection tools and tackles, scaffolding etc. with the written permission of the Engineer. If the Contractor fails to remove such materials, within fifteen (15) days of issue of a notice by the Engineer to do so then the Engineer shall have the liberty to dispose off such materials as above and credit the proceeds thereto to the account of the Contractor.

**20. PROTECTION OF PROPERTY AND CONTRACTOR'S LIABILITY**

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 Subcontractors and all public and private property including structures, building, other plants and equipments and utilities either above or below the ground. The Contractor will ensure provision of necessary safety equipment such as barriers, signboards, warning lights and alarms, etc. to provide adequate protection to persons and property. The Contractor shall be responsible to give reasonable notice to the Engineer 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.

**21. 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.

**22. 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 Engineer or by the Engineer 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.

**23. WORK & SAFETY REGULATIONS**

The Contractor shall ensure proper safety of all the workmen, 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 Engineer as he may deem necessary. The Contractor will notify well in advance to the Engineer 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 Engineer 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 Engineer 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 Engineer shall not, in any way, absolve the Contractor or 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 Engineer without any cost implication to Owner or extension of work schedule.

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 Act1934, Explosives Act1948, 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.

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 Manufacturer in this regard.

Periodical Examinations and all tests for all lifting/hoisting equipment & tackles shall be carried out in accordance with the relevant provisions of Factories Act1948, Indian Electricity Act1910 and associated Laws/Rules in force from time to time. The Contractor shall provide suitable safety equipment of prescribed standard to all employees and workmen according to the need, as may be directed by Engineer who will also have right to examine these safety equipments to determine their suitability, reliability, acceptability and adaptability. 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. The Contractor shall provide safe working conditions to all workmen 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. 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 Owner to handle such fuses, wiring or electrical equipment. Before the Contractor connects any electrical appliances to any plug or socket belonging to the other Contractor or Owner, he shall :

- a) Satisfy the Engineer that the appliance is in good working condition ;
- b) Inform the Engineer of the maximum current rating, voltage and phases of the appliances;
- c) Obtain permission of the Engineer detailing the sockets to which the appliances may be connected.

The Engineer 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.

No electric cable in use by the Contractor/Owner will be disturbed with out 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.

No repair work shall be carried out on any live equipment. The equipment must be declared safe by the Engineer and a permit to work shall be issued by the Engineer 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 Contractor to electricians/workmen/officers. The Contractors shall employ necessary number of qualified, full time Electricians/Electrical Supervisors to maintain his temporary electrical erections.

The Contractor employing more than 250 workmen whether temporary, casual, probationer, regular or permanent or on contract, shall employ atleast one full time officer exclusively as Safety Officer to supervise safety aspects of the equipments and workmen, who will coordinate with the Project Safety Officer. In case of work being carried out through Subcontractors, the Sub Contractor's workmen/employees will also be considered as the Contractor's Employees/workmen for the above purpose. The name and address of such Safety Officer of Contractor will be promptly informed in writing to Engineer with a copy to Safety Officer incharge before he starts work or immediately after any change of the incumbent is made during currency of the Contract.

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 Engineer in prescribed form and also to all the authorities envisaged under the applicable laws.

The Engineer 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 Engineer within 3 days of such stoppage of work and decision of the Engineer in this respect shall be conclusive and binding on the Contractor.

The Contractor shall not be entitled for any damages/compensation for stoppage of work due to safety reasons as provided 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.

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:-

#### **Safety Rules**

- a) Each employee shall be provided with initial indoctrination regarding safety by the Contractor, so as to enable him to conduct his work in a safe manner.
- b) 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.
- c) Under no circumstances shall an employee hurry or take unnecessary chance when working under hazardous conditions.

- d) Employees must not leave naked fires unattended. Smoking shall not be permitted around fire prone areas and adequate fire fighting equipment shall be provided at crucial locations.
- e) Employees under the influence of any intoxicating beverage, even to the slightest degree shall not be permitted to remain at work.
- f) There shall be a suitable arrangement at every work site for rendering prompt and sufficient first aid to the injured.
- g) The staircases and passageways, shall be adequately lighted.
- h) 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.
- i) 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.
- j) Requirements of ventilation in underwater working to licensed and experienced divers, use of gum boots for working in slushy or in inundated conditions are essential requirements to be fulfilled.
- k) 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.

The Contractor shall follow and comply with all electrical and Industrial Safety Rules, relevant provisions of applicable laws pertaining to the safety of workmen, 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.

If the Contractor fails in providing safe working environment as per Electrical & Industrial Safety Rules or continues the work even after being instructed to stop work by the Engineer as provided above, the Contractor shall promptly pay to Owner, on demand by the Owner compensation at the rate of Rs. 500/- 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 above shall also apply in addition to compensation mentioned in this para.

If the Contractor does not take all safely precautions and/or fails to comply with the Safety Rules as prescribed by Consortium 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 Owner's employees or any other person who are at Site or adjacent thereto, the Contractor shall be responsible for payment of compensation as decided by the Workmen's Compensation authority.

Permanent disablement shall have same meaning as indicated in Workmen's Compensation Act. The compensation payable to the workmen/employees under the relevant provisions of the Workmen'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.

If the Contractor observes all the Safety Rules and Codes, Statutory Laws, rules and quantity of work completed in scheduled time during the currency of Contract awarded by the Owner and no accident occurs then Owner may consider the performance of the Contractor satisfactory.

**24. CODE REQUIREMENTS**

The erection requirements and procedures to be followed during the erection of the equipment shall be in accordance with the relevant Indian Electricity Act/Regulations, ASME codes and accepted good engineering practice, the Engineer's Drawings and other applicable Indian recognized codes and laws and regulations of the Government of India.



## SECTION-IV

### PRE QUALIFICATION REQUIREMENT

#### (AJMER 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:

- (a) Registered contractor in AVVNL shall be eligible to bid and such registered bidder can bid only in his opted circle.
- (b) The bidder should possess class “A/B” Electrical License issued by Electrical Inspectorate of Govt. of Rajasthan. Registered contractor under E 5 category are exempted for A/B class electrical licence issued by Electrical Inspectorate of Govt. of Rajasthan.
- (c) The bids submitted by E 5 category contractors could only be considered in respect of Chapter 22 only.
- (d) The bidder must not be blacklisted/debarred/ business relation severed by any State/Central Govt./PSU/ Power utilities on the date of bid submission. The bidder should provide an undertaking (self-certificate) in prescribed format in this regard.

#### 3.0 OTHER CONDITIONS:

- i. The Technical cum commercial bids shall be evaluated as per qualification criteria set out in these bidding documents. The financial bids shall be opened in respect of those bidders who qualified in technical commercial evaluation of bid.
- ii. After opening of price bids the prices received shall be arranged in ascending order i.e. L1,L2,L3.....so on ( L means Lowest).
- iii. In case quoted rates of L-I bidder are considered as high than negotiation may be undertaken as per rules by Nigam.
- iv. Thereafter counter offer of lowest rates shall be given for acceptance to other qualified bidders quoting higher rates.
- v. The bidders who accept offered rates shall be eligible for awarding rate contract.
- vi. A panel of bidders who have accepted lowest finalized rates shall be prepared to the extent of 3 times of number of sub divisions in respective circle on the basis of lowest to highest rates received initially in the tender. The bidder who have accepted lowest rates but not covered in panel shall remain in waiting list to be considered for award of work later on if required by Nigam.

**NOTE - No minimum quantity is guaranteed to be awarded to the contractor.**

Each up-Loaded paper/documents should be self-attested duly sealed& Signed by the bidders. 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.

**SCHEDULE-1****Qualification Requirements Details**

Bidder's Name &amp; Address :

To,

Superintending Engineer (TW),  
Ajmer Vidyut Vitran Nigam Ltd,  
Makadwali Road , Vidyut Bhawan ,  
Panchseel Nagar, Ajmer 305001

Dear Sirs,

We hereby declare that we are qualified for bidding in reference to “Qualification Requirements” indicated in Important Notes, section-I (ITB), Section-II(GCC) & Section-III – A, B (ECC) of the bidding documents with all terms & conditions under TN..... and submit the following certificate(s) /documents in support of the above :-

S.No.	Details	Online uploaded
		Yes/No
1	Registration Certificate	
2	Electrical License	
3	Nil Commercial Deviation (Schedule-2)	
4	Nil Technical Deviation (Schedule-3)	
5	Self-Declaration of non- Blacklisting/ Debarment/ Business relation severement (Schedule-4)	
6	Scan copy of receipt of Sr. AO( EA &CASH),AVVNL i.e. Tender Cost, e-processing fee & Bid Security fee)	
7	Declaration Certificate (Annexure- A)	

(Signature).....

(Name).....

(Designation).....

Date:

(Common Seal).....

Place;

**SCHEDULE-2****Commercial Terms & Conditions**

Bidder's Name &amp; Address :

To

Superintending Engineer (TW),  
Ajmer Vidyut Vitran Nigam Ltd,  
Makadwali Road , Vidyut Bhawan ,  
Panchseel Nagar, Ajmer 305001

Dear Sirs,

**Sub :** Confirmation for “No Deviation” in Commercial terms & conditions of package  
No. AJD/SE (TW)/ TN.....

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.

Date :

(Signature).....

Place :

(Name).....

(Designation).....

(Common Seal).....

**SCHEDULE-3****Technical Terms & Conditions**

Bidder's Name &amp; Address :

To,

Superintending Engineer (TW),  
Ajmer Vidyut Vitran Nigam Ltd,  
Makadwali Road , Vidyut Bhawan ,  
Panchseel Nagar, Ajmer 305001

Dear Sirs,

**Sub :** Confirmation for “No Deviation” in Technical terms & conditions of package  
No.AJD/SE (TW)/ TN.....

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.

(Signature).....

Place :

(Name).....

Date:

(Designation).....

(Common Seal).....

**SCHEDULE-4**

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

To,

**The Superintending Engineer (TW),  
AJMER VIDYUT VITRAN NIGAM LIMITED  
Ajmer - 305001**

In reference to the tender ref. no.....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,

Date :  
Place :

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

**DECLARATION CERTIFICATE**

Bidder's Name &amp; Address:

To,

Superintending Engineer (TW),  
Ajmer Vidyut Vitran Nigam Ltd,  
Makadwali Road , Vidyut Bhawan ,  
Panchseel Nagar, Ajmer 305001

Dear Sirs,

We hereby declare that we are qualified for bidding in reference to “Qualification Requirements” indicated in Important Notes, section-I (ITB), Section-II(GCC) & Section-III – A, B (ECC) of the bidding documents with all terms & conditions under TN..... The relevant detail in respect of own Registration Certificate & Electrical License is as under:-

**1. Registration Certificate Details :**

- i) Name of Firm : .....
- ii) Firm Address: .....
- iii) Category of Registration Certificate : .....
- iv) Name of allotted Circle : .....

**2. Electrical License Details :**

- i) Issuing Authority : .....
- ii) Validity of License:.....

(Signature).....

(Name).....

(Designation).....

Date:

(Common Seal).....

Place;

