

JAIPUR DEVELOPMENT AUTHORITY

Room No. CB-FF-113, CCC Building Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur – 302 004
Telephone: +91-141-2569696 e.mail : saleem119164@gmail.com

No. JDA/EE-P4/ELECT./2015-16/D-310

Dated 29.07.2015

NOTICE INVITING BID

NIB No. : 10/2015-16

Online Bids are invited up-to 6.00 PM of 3.09.2015 for Electrification work of JDA residential Scheme Murtikala Vihar at Village Rojda, Jaipur. Details may be seen in the Bidding Document at our office or the website of State Public Procurement Portal website www.sppp.rajasthan.gov.in, www.eproc.rajasthan.gov.in and www.jaipurjda.org.

To participate in the bid, bidder has to be:

1. Registered on JDA website www.jaipurjda.org
For participating in the Bid, the Bidder has to apply for the Bid and pay the Bidding Document Fee, RISL Processing Fee and Bid Security Deposit, online only.
2. Registered on e-Procurement Portal of Government of Rajasthan www.eproc.rajasthan.gov.in for online e-Bid submission.

(Executive Engineer P-4)
Procuring Entity

JAIPUR DEVELOPMENT AUTHORITY

Room No. CB-FF-113, CCC Building Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur – 302 004
Telephone: +91-141-2569696 e.mail : saleem119164@gmail.com

No. JDA/EE-P4/ELECT./2015-16/D-310

Dated 29.07.2015

NOTICE INVITING BID

NIB No. : 07/2015-16

Name & Address of the Procuring Entity	➤ Name: Executive Engineer P-4 (Elect), Jaipur Development Authority ➤ Address: Room No. CB-FF-113, CCC Building, Ist Floor, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur – 302 004 (Rajasthan) ➤ Email: saleem119164@Gmail.com
Subject Matter of Procurement	➤ Electrification work of JDA residential Scheme Murtikala Vihar at Village Rojda, Jaipur
Bid Procedure	Two Bid (eg. Single-stage Two part (envelope) open competitive) eBid procedure at http://eproc.rajasthan.gov.in
Bid Evaluation Criteria (Selection Method)	➤ L1 (eg. Least Cost Based Selection (LCBS)-L1)
Websites for downloading Bidding Document, Corrigendum's, Addendums, etc.	➤ Websites: www.sppp.rajasthan.gov.in , www.eproc.rajasthan.gov.in , www.jaipurjda.org
Website for online Bid application and payment *	➤ Website: www.jaipurjda.org ➤ For participating in the Bid, the Bidder has to apply for this Bid and pay the Bidding Document Fee, RISL Processing Fee and Bid Security Deposit, online only. ○ Bidding document fee: Rs. 1000/- Rupees (One Thousand only) ○ RISL Processing Fee: Rs. 1000/- (Rupees One Thousand only) ○ Requisite Bid Security Deposit
Estimated Procurement Cost	➤ INR 599.71 Lacs (Rupees Five Hundred Ninety Nine and Seventy One Lacs Only)
Bid Security Deposit	➤ Amount (INR) : 2% (Rs. 11,99,420.00) of Estimated Procurement Cost, 0.5% of S.S.I. of Rajasthan, 0.5% (Rs. 2,99,855.00) for Bidder registered as contractor in JDA, 1% for Sick Industries, other than S.S.I., whose cases are pending with Board of Industrial & Financial Reconstruction
Pre-Bid	➤ N/A
Start/ End Date for Bid Applying, Online Payment and Bid Submission	➤ Start Date: 5/08/2015 at 6.00 PM onwards ➤ End Date: 3/09/2015 at 6.00 PM
**Date/ Time/ Place of Technical Bid Opening	➤ 07/09/2015 at 3.30 PM ➤ Room No. 215, Main Building, Ram Kishore Vyas Bhavan, Indira Circle, Jawahar Lal Nehru Marg, Jaipur – 302 004 (Rajasthan)
Date/ Time/ Place of Financial Bid Opening	➤ Will be intimated later to the Technically qualified bidders
Bid Validity	➤ 120 days from the bid submission deadline
Completion Period	➤ 6 Months
* The amount is to be deposited online by bidder. In case the amount exceeds the online payment limit the payment may be made through RTGS/NEFT in ICICI BANK LTD Bank Account Number 675401700586 IFSC Code ICIC0006754. After successful payment, update the UTR/Instrument number on JDA Tender portal against the tender you want to participate. The amount deposited will be confirmed by JDA and will be updated online. ** There should be a gap of 3 working days BETWEEN End Date for Bid Applying, Online Payment & Bid Submission AND Bid opening date.	
Note: 1. Bidder (authorized signatory) shall submit their offer on-line in Electronic formats both for technical and financial proposal. 2. In case, any of the bidders fails to pay the Tender Fee, BSD, and RISL Processing Fee, online (subject to confirmation), its Bid shall not be accepted.	

3. To participate in online bidding process, Bidders must procure a Digital Signature Certificate (Type III) as per Information Technology Act-2000 using which they can digitally sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency, i.e. TCS, Safecrypt, Ncode etc. Bidders who already have a valid Digital Signature Certificate (DSC) need not procure a new DSC. Also, bidders must register on <http://eproc.rajasthan.gov.in> (bidders already registered on <http://eproc.rajasthan.gov.in> before 30-09-2011 must register again).
4. JDA will not be responsible for delay in online submission due to any reason. For this, bidders are requested to upload the complete bid well advance in time so as to avoid 11th hour issues like slow speed; choking of web site due to heavy load or any other unforeseen problems.
5. Bidders are also advised to refer "Bidders Manual Kit" available at eProc website for further details about the e-Tendering process.
6. Training for the bidders on the usage of e-Tendering System (eProcurement) is also being arranged by DoIT&C, GoR on a regular basis. Bidders interested for training may contact e-Procurement Cell, DoIT&C for booking the training slot.
Contact No: 0141-4022688 (Help desk 10 am to 6 pm on all working days) e-mail: eproc@rajasthan.gov.in
Address : e-Procurement Cell, JDA, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur
7. The procuring entity reserves the complete right to cancel the bid process and reject any or all of the Bids.
8. No contractual obligation whatsoever shall arise from the bidding document/ bidding process unless and until a formal contract is signed and executed between the procuring entity and the successful bidder.
9. Procurement entity disclaims any factual/ or other errors in the bidding document (the onus is purely on the individual bidders to verify such information) and the information provided therein are intended only to help the bidders to prepare a logical bid-proposal.
10. The provisions of RTPPA Act 2012 and Rules thereto shall be applicable for this procurement. Furthermore, in case of any inconsistency in any of the provisions of this bidding document with the RTPP Act 2012 and Rules thereto, the later shall prevail.

(Executive Engineer P-4)
Procuring Entity

Process for Participation & Depositing Payment Online

JAIPUR DEVELOPMENT AUTHORITY, has decided to receive Bidding document fee, RISL Processing Fee and Bid Security Deposit (BSD) through online mode only for which the bidder has to get registered himself on JDA portal www.jaipurjda.org.

To participate in the bid, bidder has to be:

1. Registered on JDA website www.jaipurjda.org (by depositing Rs. 500.00 online, the validity of which remains 3 (three) years).
For participating in the Bid, the Bidder has to apply for this Bid and pay the Bid Document Fee, RISL Processing Fee and Bid Security Deposit, online only.
2. Registered on e-Procurement Portal of Government of Rajasthan www.eproc.rajasthan.gov.in for online e-Bid submission.

Methods for depositing on line amount

- Online through Internet Banking, Debit Card or Credit Card.
- In case the amount exceeds the online payment limit, the payment may be made through RTGS/NEFT/Transfer in Bank Account Number **675401700586** IFSC Code **ICIC0006754** of ICICI BANK Limited, JDA Campus Jaipur.

In case of RTGS / NEFT / Transfer the bidder is required to deposit the requisite amount in the dedicated bank account number as mentioned above and has to get the UTR / Reference number from the bank. This number requires to be updated while applying the bid on JDA portal.

While participation in the bid, a receipt will be generated through the system showing the submission details as per **Annexure-4**. The bidder is required to fill the instrument numbers for various heads on e-Procurement portal www.eproc.rajasthan.gov.in as mentioned in the receipt.

More details about Registration Process, Terms and Conditions and FAQ along with contact detail is available on JDA website www.jaipurjda.org under [e-Services](#)>>JDA Tender

Bidder has to submitted as proof of deposited amount against the Bid on e-Procurement Portal

Jaipur Development Authority

Bid Participation Receipt

Date & Time : 09/06/2015 05:13 PM

Bid Detail

Bid Id : 6215152001 **Procurement Entity :** XXXXXXXXXXXXX
Bid Title : Testing
Bid Value : 300000 **Bid Opening Place :** Manthan Hall, Jaipur
Development Authority

Bidder Detail

Name of Entity : XXXXXXXXXXXX **Mobile:** 9829012345
Registration Type: Individual **Instrument Amount :** 32500.00
Payment Mode: Online/UTR **Payment Channel :** Payment Gateway/ICICI Branch - JDA
Instrument No : 456123789 **Instrument Date :** 17-06-2015

Dates Detail

Sr. No.	Event Name	Event Date
1	Publishing Date	01/06/2015 01:00 PM
2	Bid Opening Date	01/07/2015 03:00 PM

Specific Instrument Detail for eProc Rajasthan

Instrument Type: DD			
Instrument Number	Head Name	Amount	Date
10000	Tender Fee	400.00	05/06/2015
10001	RISL Processing Fee	1000.00	05/06/2015
10002	Bid Security Deposit	30,000.00	05/06/2015
Issuer Detail : Jaipur Development Authority		ChallanNumber: 641515600014	

JAIPUR DEVELOPMENT AUTHORITY JAIPUR

TECHNICAL BID (POST QUALIFICATION)

Envelop-2

FOR

Name of Work:- Electrification work of JDA residential Scheme Murtikala
Vihar at Village Rojda, Jaipur.

1. Cost of the bid document : Rs 1000.00. The Bidders are required to submit Bid security, cost of Bid documents, Bid processing fees through online payment after registering with JDA on www.jaipurjda.org/e-services/e-tender portal at least in three days advance of tender sale date. In the absence of such fees the bid of respective bidder will be considered as non-responsive and shall be rejected.
2. Bid Processing fees : Rs. 1000.00
3. Bid Security : @ 2% Rs. 11,99,420.00 (for E1 class contractor registered in other department) and @ ½% Rs. 2,99,855.00 (For Contractor registered in JDA) through online payment after registering with JDA on www.jaipurjda.org/e-services/e-tender portal at least in two days advance of tender sale date.
4. Completion period of work : 6 Months

NAME OF AGENCY M/s -----

JAIPUR DEVELOPMENT AUTHORITY JAIPUR

SPECIAL CONDITION OF THE CONTRACT FOR POTENTIAL ASSESSMENT OF CONTRACTORS

Name of work : - Electrification work of JDA residential Scheme Murtikala
Vihar at Village Rojda, Jaipur.

Special conditions of contract for **POST QUALIFICATION** as detailed here under, shall be applicable in addition to all other terms and condition already prescribed under standard agreement forms/rules and regulations to contract.

1. Procedure:

Procedure for **POST QUALIFICATION** would be as follow:

(a) Three-envelope system would be adopted, for **POST QUALIFICATION**.

Envelop-1. The Bidders are required to submit Bid security, cost of Bid documents, Bid processing fees through online payment after registering with JDA on www.jaipurjda.org/e-services/e-tender portal. There should be a gap of 3 working days BETWEEN End Date for Bid Applying, Online Payment & Bid Submission AND Bid opening date. In the absence of such fees the bid of respective bidder will be considered as non-responsive and shall be rejected.

Envelop-2 being for Technical Bid and

Envelop-3 being for Financial Bid.

- (b) The technical bid will be opened only of those bidders whose proper Bid security, cost of Bid documents, Bid processing fees through online payment after registering with JDA on www.jaipurjda.org/e-services/e-tender portal. There should be a gap of 3 working days BETWEEN End Date for Bid Applying, Online Payment & Bid Submission AND Bid opening date. In the absence of such fees the bid of respective bidder will be considered as non-responsive and shall be rejected. The technical bid will be opened only of those bidders whose VAT clearance certificate (Valid up to Six months back from the opening of Technical Bid) and copy of registration of contractor in required category are found to be in order.
- (c) The Technical Bid envelope-2 would be opened on the date **07.09.2015 at 3.30 PM** in the chamber of Addl. Chief Engineer (Elect.), JDA, Jaipur at Room No 215. The Financial Bid envelope-3 would be opened only of those bidders who fulfill all the **POST QUALIFICATION** criteria.

Note:-

If VAT clearance certificate is not applicable in any State then appropriate proof is to be enclosed by bidder with certificate which is applicable in place of VAT.

2.Criteria:

Criteria for POST QUALIFICATION would be as follows:-

- (a) The bidder should have executed following quantities of work in any one financial year during last five financial years. However the bidder may opt current year in the said financial assessment period.

S.No.	Item	Quantities required to be executed (50% Qty. of G-Schedule)
1	Major Item of Schedule - G	
For Electrical work of power lines		
A	11 KV cable of all sizes	3250.00 Mtr.
B	33 KV Cable of all sizes	7450.00 Mtr.
C	Insulated Rabbit	28459.00 Mtr.
D	PCC Pole of all size	275 Nos.

Note:-

- (i) The Bidder should enclose the certificate having quantities Financial year wise other wise the certificate will not be considered.
- (ii) Quantities of all the items mentioned in criteria 2 (a) should be executed in one financial year.
- (iii) Certificate issued by Govt. of India, State Govt., Union Territory, Govt. Undertakings, Autonomous Bodies shall only be considered.
- (b) The bidder should have completed at least one electrical nature work in last three financial year (including current year, if opted by the bidder) of value not less than 50% of the Estimated Cost of the work (bid cost) updated to present price level)

Notes:-

- (i) The starting & completion date of the work is to be in between above said financial year. If no then maximum work (70%) is to be completed in above said financial year.
- (ii) If bidder is submitted certificate having different components / nature of work then proper completion certificate of required similar nature component is to be enclosed.
- (c) The bidder should have achieved an annual financial turnover of at least 60 % of the Estimated Cost of the work (bid cost) in any one of last Three financial years (including current year, if opted by the bidder)

Note:-

- (i) The bidder should enclose certificate of Turn over from Chartered Accountant for last five financial years & audited balance sheet of the year which is considered by the bidder in criteria 2 (c).
- (ii) If current year or last year has been opted by bidder whose balance sheet is not submitted till the submission of bid then certificate from Chartered Accountant should be enclosed.
- (d) The bidder should give Affidavit to deploy the machinery and equipment as specified in Schedule – III, for the execution of this work.
- (e) Bid Capacity: Bidders who meet the minimum qualification criteria will be qualified only if available bid capacity is equal to or more than the total Bid value.

The available bid capacity will be calculated as under:

$$\text{Bid Capacity} = (A \times N \times 3 - B)$$

Where A = Maximum value of electrical engineering work executed in any one year during the last 5 financial years (updated to present Price level) taking in to account the completed as well as works in progress. However, the bidder may opt current year in the five year assessment period

N = Number of year prescribed for completion of the work for which bids is invited.

B = Value, at present price level of existing commitments and on-Going Works to be executed during 'N' period (period prescribed for completion of the works for which the bids are invited)

Note:-

- (i) Certificate from Chartered Accountant should be enclosed by bidder clearly indicated maximum value of Electrical Engineering Work in one Financial Year.
- (f) Litigation History: - Bidder should provide an accurate information on any litigation or arbitration resulting from contracts completed or under execution by him over the last five years. The maximum value (updated at the present price level) of disputed amount claimed in the litigation / arbitration resulting from contracts executed in last five years shall be deducted from the

calculated Bid Capacity of the bidder. The details shall be furnished in Schedule VI.

Note :-

(i) The present price level for turnover, cost of completed work & disputed amount Of similar nature, the previous years value shall be given weight age of 10% per Year as follows:-

(a)	For current year	1.00
(b)	For last year	1.00
(c)	For one year before	1.10
(d)	For two year before	1.21
(e)	For three year before	1.33
(f)	For four year before	1.46

3. Documentation :

The bidder should furnish the following documents along with the technical bid:

- (a) Information regarding financial resources and capability in Schedule -I.
- (b) Information regarding works executed in the last five years in Schedule-II
- (c) Certificates from the concerned Engineer-In-Charge in support and verification of the information furnished in Schedule-II
- (d) Affidavit regarding machinery and equipment required for deployment, as detailed in scheduled - III.
- (e) Information regarding details of maximum value of electrical engineering works executed in any one year during the last five years taking into account the completed as well as works in progress in schedule - IV.
- (f) Information regarding existing commitments and ongoing works to be completed in schedule - V.
- (g) Information regarding details of litigation or arbitration contracts to be furnished in schedule - VI.
- (h) Calculation of Bid capacity in schedule - VII.
- (i) Affidavit as per Annexure I.

4. Important:

- (a) The bidder must ensure that all the information required in the Documents is furnished by him complete in all respects. He would not be allowed to withdraw any document, or to rectify any information furnished therein, after submitting the bid.
- (b) The bidder should give an affidavit that the information furnished in schedule I, to VII is correct. If any information is found incorrect, the offer of the bidder shall be rejected and action be taken as per rules.
- (c) Bidders must do paging of all enclosure of bid documents.

5. Rejection of bids

The department reserves the rights to reject any bid or to disqualify any or all The bidders, without assigning any reasons at any stage.

- (i) If Bid is not accompanied with the requisite documents mentioned in clauses 3 (a) to 3 (i) or is not in accordance with procedure specified in Para 1, or is not accompanied with earnest money, tender fee, processing fee & VAT clearance Certificate and registration of contractor in required category it would be liable for rejection.
- (ii) Furnishing of incorrect or incomplete or concealment of any information required in the bid documents would render the bid liable for rejection.
- (iii) If all the copies enclosed in support and affidavit is not duly attested by Notary public / gazetted officer then bid of the bidder is to be rejected.

EXECUTIVE ENGINEER PROJECT-4 (Elect.)
JAIPUR DEVELOPMENT AUTHORITY
JAIPUR

Schedule – I
FINANCIAL RESOURCES AND CAPABILITY

[Reference clause 3 (a)]

1. Name of Bidder
2. Total financial turnover achieved by the bidder in the last five financial years:

S.no.	Year	Turnover
(1)		
(2)		
(3)		
(4)		
(5)		

Note: Balance Sheets and Profit & Loss Accounts is to be enclosed by the bidder which is considered by him as per criteria 2 (a).

3. Total financial Turnover projected in the current financial year
4. Has the bidder ever been debarred from tendering for Central Government / State Government / any Government undertaking?
Yes / No, if yes give details.
5. Has bidder ever been declared insolvent?
Yes/No, if yes give details.
6. Name(s) and Address of Branch/(s) for bidder's Bankers.

I/We hereby certify that the above information is correct to the best of my/our knowledge and belief.

Date:

Signature of Bidder
(With Seal wherever applicable)

SCHEDULE - II

(Reference Clause 3b)

Detail of quantities of work executed during last five financial years

S. No.	Name of Work (with Agreement No. & Date)	Place (District/State)	Financial Year	Principal item of work	

Date:

Signature of Bidder

Note: Certificate from concerned Engineer-in-charge should be enclosed in support and verification of the above statement.

Schedule – III

[Reference Clause 3(d)]

AFFIDAVIT

I/We..... Proprietor/ Partner/
Authorized signatory of M/s under take the oath
that I/We will deploy the machinery and equipment listed below as and when
required in the execution of this work.

S.No.	Name of Machinery	Minimum Requirement	Availability	
			Owned	Leased
1	Digital Insulation tester 5 KV, with timer	1 No's		
2	HV Test set	1 No's		
3	Hydraulic Crimping tool up to 240 sqmm	1 No's		
4	Multimeter	1 No's		

I/We hereby certify that the above information is correct to the best of my/our
knowledge and belief.

Date:

Signature of Bidder
(With seal)

SCHEDULE -IV
(Reference clause 3e)

DETAILS OF MAXIMUM VALUE ELECTRICAL ENGINEERING WORKS EXECUTED IN ANY ONE YEAR DURING THE LAST FIVE YEARS TAKING INTO
ACCOUNT THE COMPLETED AS WELL AS WORKS IN PROGRESS

S.No.	Name of works (with agreement no. & date)	Client	Place (district/State)	Financial year	Cost of work as per work order	St. date of commencement	St. date of completion	Value of work done during the year

Signature of Bidder

SCHEDULE - V
(Reference Clause 3f)

DETAILS OF EXISTING COMMITMENTS & ON-GOING WORKS TO BE COMPLETED IN NEXT ONE YEAR FROM DATE OF SUBMISSION OF BID

S. No.	Name of Work	Place and State	On going work			Existing Commitments	
			Cost of work	Cost of work Remaining to be executed	Value of remaining work at present price level as on updated @10% per year	Estimated cost (Rs. In lacs)	Value of present price level as on updated @10% per year

SCHEDULE -VI
(Reference clause 3g)

DETAILS OF LITIGATION OR ARBITRATION CONTRACTS

S.No.	Name of works (with agreement no. & date)	Client	Work order amount	Disputed amount claimed in litigation / Arbitration	Date of raising disputed amount	Actual award amount, if the case is decided	Cause of litigation & Matter in dispute

SCHEDULE-VII
(Reference Clause 3 h)
BID CAPACITY

Name of bidder :-----

<u>1.</u>	A = Maximum value of Electrical Engineering work executed in any one year during the last five finance years (Upload to present price level)	----- Lacs	Certified details enclosed at Page no.....
<u>2</u>	<u>N = Number of years prescribed for completion of the work, for which bids are invited</u>	-----Year	
<u>3</u>	<u>B= Value, at present price level of existing commitments and on going work to be completed during the N period</u>	-----Lacs	Certified details enclosed at Page no.....

Bid capacity = A X N X 3 - B
= -----Lacs

Signature of Bidder

ANNEXURE- I

[Reference Clause 3(i)]

To be given on Non-Judicial stamp
Paper of Rs. 10/- only, duly attested by
Notary Public

AFFIDAVIT

I/We..... Proprietor/ Partner/
Authorized signatory of M/s under take the
oath that the information furnished by me/us in schedule I to VII of the
assessment Bid for
..... is correct to the best of my/our
knowledge. If any information is found to be incorrect JDA has right to reject the
Bid and to take action against me/us as per rules.

.....
Proprietor/ Partner/ Authorized signatory
M/s
.....

JAIPUR DEVELOPMENT AUTHORITY, JAIPUR

FINANCIAL BID POST QUALIFICATION

Envelop-3

(G-SCHEDULE IS PROVIDED IN EXCEL FILE)

For

**Name of Work:- Electrification work of JDA residential Scheme
Murtikala Vihar at Village Rojda, Jaipur**

Date of on line Sale : 5.08.2015 to 3.09.2015

Date of on line receipt : 5.08.2015 to 3.09.2015

M/s:

Note- Digital signature is valid in all documents.

**Executive Engineer P-4 (Elect)
JDA, Jaipur**

JAIPUR DEVELOPMENT AUTHORITY, JAIPUR

**Name of Work:- Electrification work of JDA residential Scheme Murtikala
Vihar at Village Rojda, Jaipur**

CONTENTS OF BIDDING DOCUMENT

S.No.	Details	Page No.
1.	General Instructions to contractors	3-6
2.	Special Condition for post qualification	7-10
3.	Special condition of contract	11-14
4.	Inspection and testing	15-17
5.	Minimum Safety rules	18-22
6.	Guarantee	23-24
7.	Erection testing and commissioning	25-34
8.	GTP to RMU	35

1-GENERAL INSTRUCTIONS TO CONTRACTOR

- 1.1 The Bidder is expected to examine carefully all instructions, conditions, forms, terms, and performance specification and drawing in the bid Documents. Failure to comply with the requirements of Bid submission shall be at the Bidder's own risk, Bids Which are not substantially responsive to the requirements of the bid documents shall be summarily rejected.
- 1.2 At any time prior to the last date for submission of bids, the Employer may, for any reason whether at his own initiative or in response to a clarification requested by a prospective bids, modify the bid Documents but the issuance of an Addendum.
- 1.3 The Addendum will be sent in writing or by Fax prospective Bidder who have received Documents, and will be binding unto them, whether the prospective Bidders acknowledge same or not.

2 DOCUMENTS AND INFORMATION TO BE FURNISHED AT THE TIME OF BID SUBMISSION

- 2.1 The bid to be prepared and submitted by the Bidder to the Employer for consideration shall comprise the following.
 - a Form of bid duly singed along with the complete set of bid Documents. All documents issued for the purpose of bidding as descried shall be deemed to have been incorporated in the bid for the work.
 - b Bid security, Bid fee and processing fee as applicable in form of demand draft of any Nationalised Bank of India in favour of the Secretary Jaipur Development Authority Jaipur', payable at Jaipur.
 - c Sales Tax Clearance Certificate from the concerned departments
 - d Bill of Quantities with the rates (both in figures as well as in words) and amounts for, all items of work duly filled in.

3. BIDED PRICES

- 3.1 Unless explicitly stated otherwise in the Bid Documents, the contract shall be for whole based on the departmental design, Bill of Quantities, rates and prices submitted by the Bidder.
- 3.2 The Bid shall fill in percentage rate (above/below) for the scheduled rates items and rates and rates and prices for all items in Non scheduled category of works describe in the Bill of Quantities in both figures and words, In case, there is any discrepancy in

the rates quoted in figures and words, the rates, quoted in words shall be taken as correct. Item against which no rate of rice is entered by the Bidder will not be paid for the employer when executed and shall be deemed to have been covered by the rates and prices in the Bill of Quantities.

- 3.3 All duties, taxes, fees and other levies (present and future) payable by the contractor under the Contract, or for any other cause, and on the date thirty days prior to the closing date for submission of bids, shall be included in the total Contract Price submitted by the Bidder and the evaluation and comparison of bids by the Employer shall be made accordingly.

4 BID SECURITY

- 4.1 The Bidder shall furnish as part of his bid security for the respective amounts as mentioned in the NIT in form of demand draft of any Nationalised Bank of India in favour of 'The Secretary Jaipur Development Authority Jaipur', payable at Jaipur.
- 4.2 Any bid not accompanied by bid security, bid fee and processing fee will be summarily rejected by the employer as non-responsive.
- 4.3 The bid security of the unsuccessful Bidder will be discharged/returned without interest as promptly as possible as but not later than 60 days after expiry of the bid validity prescribed by the employer.
- 4.4 The bid security of the successful Bidder will be discharged without interest upon the Bidder signing the agreement and furnishing the Bank Guarantee/ Surety Bond for the performance of the Contract.
- 4.5 There will be no liability on the part of the department towards interest on the Earnest Money paid by the Bidder.
- 4.6 The bid security shall be forfeited:
- a If a Bidder withdraws his bid during the period of bid validity, or
 - b In the case of a successful Bidder, if he fails or refuses within the specified time limit, to:
 - i Sign the agreement, or
 - ii Furnish the required performance security.

5 VARIATIONS OR DEVIATIONS IN BID DOCUMENTS

- 5.1 The bid shall submit an offer which complies fully with the basic requirements of the bid Documents as indicated in Drawing and Specifications.
- 5.2 All Bidders are cautioned that no conditional offers, variations or deviations by the Bidders in respect of any items proposed by the Bidder shall be entertained or considered further in the process of bid evaluation. Furthermore, any deviation from

contract conditions, specification, or other requirements stipulated in these Bid Documents shall be summarily rejected as non-responsive.

6 VALIDITY OF BID

- 6.1 The Bid shall remain valid and open for acceptance for a period of 4 (four) months after the date of opening of bid.
- 6.2 In exceptional circumstances, prior to expiry of the original bid validity period, the Employer may request the Bidder for a specified extension in the period of validity. The request and the responses thereto shall be made in writing through post, fax etc. A Bidder may refuse the request without forfeiting his bid security. A Bidder agreeing to the request will neither be required nor permitted to modify his bid, but will be required to extend the validity of his bid security correspondingly. The provision of Clause D regarding discharge and forfeiture of earnest money shall continue to apply during the extended period of bid validity.

7 FORMAT AND SIGNING OF BIDS

The complete bid shall be without alterations, interlineations or erasure, except those to accord with instructions issued by the Employer or as necessary to correct errors made by the Bidder, in which case such corrections shall be initiated by person or persons signing the bid.

8 EMPLOYER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

Notwithstanding, Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject one or all bids, at any time prior to the award of contract, without thereby incurring any liability to the affected or tenderer's or any obligation to inform the affected Bidder or Bidders of the grounds of the Employer's action.

9 NOTIFICATION OF AWARD OF CONTRACT

Prior to the expiry of the period of bid validity prescribed by the Employer, the Employer will notify the successful Bidder by telegram / cable or fax (and subsequently confirm in writing by Registered Letter) that his bid has been accepted. This letter called "Letter of Acceptance" shall name the sum which the Employer will pay to the Contractor in consideration of the execution, completion and maintenance of the work by the Contractor as prescribed by the Contract (called the "Contract Price").

10. The Letter of Acceptance will form part of the Contract and agreement executed between the parties in accordance with the Form of agreement provided in the bid.

11. Upon furnishing by the successful Bidder of a Performance Security in accordance with the provisions of the special conditions of contract, the Employer will promptly notify the unsuccessful Bidder that their bids have been unsuccessful and will discharge / return without interest their bid security deposits in pursuance with Clause.

12 **SIGNING OF AGREEMENT**

At the same time as he notifies the successful Bidder that his bid has been accepted, the Employer will instruct the successful Bidder to sign and execute the agreement within seven (7) days of issue of the Letter of Acceptance.

Signature of Contractor/Bidder

Executive Engineer P-4 (Elect)

J.D.A., Jaipur

2-SPECIAL CONDITION FOR POST QUALIFICATION

1. The financial bid shall be opened only of those successful Bidders who qualify the technical Bid criteria.

Documents to be submitted with financial bid are as follows:

Percentage Rates on C-Schedule both in figures and in words duly filled in.

The financial bid will be evaluated on the basis of basic rates of the System (SITC of the Job).

On bid scrutiny, if differences are found in rates given by the bidder in words and figures in individual rates or in sub-total or in grand totals the procedure for deriving the final value shall be as follows:

Before submission of the bids, the bidders are advised to visit the site and get acquainted with site conditions, availability of materials & laour. All clarifications must be sought by the bidders well in time and no extension of time shall be given on this account.

The bidders are advised to account for any fluctuations in market rates of material! equipment cost labour rates. Any claim on these accounts shall not be entertained after the award of work unless specifically agreed to.

Bids not submitted on prescribed form are liable to be rejected.

Bidders are advised to quote original offer as per bill of quantities.

In case drawing and details are not enclosed with bid documents, these can be seen in the office of the department during office hours. Failure to avail of this shall not relieve the bidder of his responsibility of correct interpretation of work involved.

Bidders who resort to canvassing in any form shall be liable to rejection.

Printed Conditions of contract: Any printed conditions and conditions contrary to these conditions of contract in contractors offer shall be excluded from the contract and not applicable to this contract.

The bid shall be valid for acceptance for a period of four months from the date of submission of the bid.

2. EXECUTION DRAWINGS

The successful bidder shall have to submit execution drawing to the department within a total period of 1 week from the date of issue of work order for approval by the department

3. TERMS OF PAYMENTS

As given in general Condition of contract in the approved standard agreement amended up to date.

No escalation charges shall be payable to the contractor over and above the rates as agreed to by the department in the detailed bill of quantities.

No advance shall be payable to the contractor.

The department does not bind themselves to accept the lowest or any bid and reserves the right to accept or reject any or all the bids in whole or in part without assigning any reasons for doing so.

The contractor must acquaint, acquire themselves with the site conditions, means to access the work, local conditions and all matters pertaining there to. I shall be the contractors, responsibility to obtain all necessary information required for quoting the above bid and for entering into a contract. The detailed drawing and specifications available with the documents must be studied and examined carefully by the bidder before submitting their offers.

The successful bidder shall sign the agreement on non judicial stamp paper of requisite value within 10 day from the issue of work order. If the contractor selected fails to sign the agreement with ten days of the issue of work order his bid security shall be forfeited.

The following documents shall form part of the contract agreement:
Invitation to bid.

All sections of financial and technical bid, contract (agreement), Bill of Quantities & drawings.

All correspondence between the successful bidder and the department. Any other documents necessary for completion of contract agreement.

The rates quoted in the bid shall include all charges for scaffolding, water, electricity charges, hiring charges for any tools/ equipments etc. required for completion of jobs. The rates shall be inclusive of excise duty, sales tax, octroi duty or any other duties or fees levies by Government or by public or local bodies from time to time.

Necessary documents for import shall be done by the contractor under his own arrangements for equipments of foreign origin. Proof of legal imports! purchase from manufacturer should be submitted at the time of supply, failing which the award may be terminated.

The works contract price quoted shall remain firm till completion of job and handing over the same in working condition to the department. The price should not be subject to exchange rate variations. No foreign exchange and license shall be arranged by Clint and it shall be contractor's responsibility to do so, if required.

It shall be contractor's responsibility to check and ascertain the correct quantities and only these assessed quantities in accordance with the requirement and as per the tentative schedule of work after approval of the Engineer-in-charge shall be brought at site after award of work order.

The contractor shall carry out additional! reduce work or supply material/ equipments at the same quoted rates up to any increased or decreased quantities specified in detailed bill of quantities. The department shall also be at liberty to ask the contractor to supply, erect and commission rates within four months of stipulated date of commencement of the work order without any price variation.

4 BAR CHART & CASH FLOW CHART

The contractor shall prepare & submit a bar chart & cash flow chart in consultation with the department and shall strictly adhere to the same. The progress and the completion of the work shall be in accordance of the bar chart will form part of this contract agreement. The said schedule of work/ bar-chart will be subject to general conditions of contract related to the extension of time. A weekly progress of site shall be submitted in writing to the department.

5 PERFORMANCE BOUND CONTRACT

The contract shall be a performance bound contract and therefore the contractor shall makes his independent checks for Mounting, selection of equipment, etc. The drawings enclosed with the bid documents are only tentative and for guidance for bidding purposes. The details or execution drawings shall be prepared and submitted for approval to the department by the successful contractor to suit the requirement pertaining to site conditions.

6 TRAINING OF PERSONNEL

The contractor shall impart training to the departmental staff free of cost during erection and commissioning of the plant

7 GUARANTEE

The contractor shall guarantee the complete system & equipments for a period of 12 months from the date of satisfactory handing over of the plant as certified by the department for fault/ bad workmanship, manufacturing defects in equipments etc. The Bidder shall guarantee the System to maintain the sound quality on the basis of Design/ Scheme. They shall also guarantee that the performance of the various equipments individually and jointly and shall not be less than the specified rating when working under operating conditions for the complete installation.

8 The commissioning of system shall be done by the contractor and all tests at site shall be conducted to confirm the bided specification should be submitted to the department for record.

9 REPAIR/ REPLACEMENT OF PARTS DURING GUARENTEE

Any defects or other faults which may appear within defect liability/guarantee period of twelve months from the date of handing over the system in a satisfactory working conditions to the department arising in the system due to material or workmanship should be corrected and replace with parts of original specifications and makes by the contractor at his own cost.

10 Security deposit will be returned to the contractor after 12 month from the date of finalization of work and successful operation of the system as judged by the department.

11 POWER SUPPLY FOR ERECTION PURPOSES

The contractor shall make his own necessary arrangements for power supply required for erection purposes by applying to JVVNL for a separate connection at his own cost or through his own DG set.

12 The contractor shall have to submit original voucher/ bills of various items to be used in execution of work.

13 The Octagonal Poles will be dispatch after issuance of certificate from JDA Engineer that the material is fit for dispatch, even after receiving the ornamental poles at site JDA reserve the right to send the material to any Govt. / Semi Govt. / Private lab for testing and if the pole is not found as per specification, the bidder will require to replace the complete material at his own cost.

14 All the materials to be used for electrification work must be inspected by Engineer-in-charge or any nominated Engineer of J.D.A. at Factory/ Laboratory before dispatch to the site at the cost of contractor. The contractor shall have to inform seven days in advance for the inspection.

Signature of Contractor/Bidder

Executive Engineer P-4 (Elect)
J.D.A.,Jaipur

3.SPECIAL CONDITIONS

SCHEDULE 'H'

1. If there is any typographical error or otherwise in the 'G' Schedule the rate given in the relevant BSR on which Schedule 'G' has been prepared, shall prevail.
2. The contractor shall follow the contractor labour regulation and abolition Act 1970 & Rule 1971.
3. The JDA shall have right to cause an audit technical examination of the work and the final bills of the contractor including all supporting vouchers, abstract etc. to be made within two years after payment of the final bills and if as a result such audit any amount is found to have been over paid / excess in respect of any work done by the contractor under the contract or any work claimed by him to have been done under this contract and found not to have been executed the contractor shall be liable to refund such amount and it shall be lawful for the JDA to recover such sum from him in the manner prescribed in special condition no. 8 or any other manner legally permissible and if it is found that the contractor was paid less than that was due to him under the contract in respect of work executed by him under it, the amount of such under payment shall be paid by the JDA to the contractor.
4. The contractor shall not work after the sunset and before sunrise without specific permission of the authority Engineer.
5. Wherever any claim against the contractor for the payment of a sum of money arises out of under the contracts, the JDA shall be entitled to recover the sum by appropriating in part or whole of the security deposit of the contractor, In the event of the security being insufficient or if no security has been taken from the contractor then the balance of the total sum recoverable as the case may shall be deducted from any sum then due or which at any time there contract with the JDA should this sum be sufficient to recover the full amount recoverable. The contractor shall pay to JDA on demand the balance remaining due. The JDA shall further have the right to affect such recoveries under P.D.R. Act.

6. The rate quoted by the contractor shall remain valid for a period of 4 (Four) months from the date of opening of the bids.
7. By submission of this bid the contractor agree to abide with all printed conditions provided in the PWD manual from 64 (Chapter 3-para 36) and subsequent modification.
8. No conditions are to be added by the contractor and conditional bid is liable to be rejected.
9. All transaction in this execution of this work and this bid will be liable to Sale-Tax vide section. 2(B) read with sub-clause (4) Sale-tax Rule, 1954.
10. If any bidder withdraws his bid prior to expiry of said validity period given at S.No. 7 or mutually extended period or makes modifications in the rate, terms and conditions of the bid within the said period which are not acceptable to the department or fails to commence the work in the specified period, fails to execute the agreement and fails to furnish performance guarantee the department shall without prejudice to any, other right or remedy, be at liberty to forfeit the amount of earnest money given in any form absolutely. If any contractor, who having submitted a bid does not execute the agreement or start the work or does not complete the work and the work has to be put to rebidding he will stand debarred for 6 Months from participating of bidding in JDA in addition to forfeiture of Earnest Money / Security Deposit and other action under agreement.
11. The contractor shall arrange his own machinery required for the work such as Bitumen Mixer, Hot Mix plants and paver, road roller, Tar boiler, sprayer etc.
12. The contractor shall arrange his own storage tanks up to 10 Tones capacity for storage of bulk bitumen wherever supplied by the department.
13. Rules regarding enlistment of contractor provide that work up to the times limit for which they are qualified for bidding can be allotted to them, Therefore, before bidding the contractor will keep this in mind, and submit the details of the work. Bids with incomplete or incorrect information are liable to be rejected.
14. Any material not conforming to the specifications collected at site have to be removed by the contractor within a period of 3 days of the instruction, issued by the Engineer -In charge in writing failing which, such material shall be

- removed by the Engineer-In charge at risk and cost of the contractor after expiry of 3 days period.
15. The material collected at site and paid provisionally shall remain under and ward of the contractor till it is consumed, fully on the work.
 16. The rates provided in bid documents are inclusive of all Taxes and royalty.
 17. For paver work at lest 3 road rollers shall be simultaneously deployed.
 18. No extra lead of earth/material shall be paid over and above as specified in 'G' Schedule Source/borrow pit area for earth shall have to be arranged by the Contractor at his own cost.
 19. Undersigned has full right to reject any or all bids without given any reasons.
 20. Mortar of Masonry work and lean concrete will be permitted mixer with hopper.
 21. As per Supreme Court decision "All contracts with Governments shall require registration of workers under the building and other construction workers (Regulation of Employment and Conditions of Service) Act, 1996 and extension of benefits to such workers under the act.
 22. Special Conditions of Contract regarding Defect Liability Period (DLP) for Roads works costing Rs. 25.00 lacs and more shall be applicable
 23. The bidders are required to submit copy of their enlistment as contractor.
 24. Conditions of RPWA-100 will be mandatory & acceptable to the contractor.
 25. Any bid received with unattested cutting/ overwriting in rates shall be rejected and such bidder will be debarred from bidding for three months in JDA.
 26. All the provision of THE RAJASTHAN TRANSPARENCY IN PUBLIC PROCUREMENT ACT 2012 and Rules, 2013 will be applicable. If there is any contradictions in existing epscial conditions and provisions of THE RAJASTHAN TRANSPARENCY IN PUBLIC PROCUREMENT ACT 2012 and Rules 2013 provision of THE RAJASTHAN TRANSPARENCY IN PUBLIC PROCUREMENT ACT 2012 and Rules 2013 shall be applicable.
 27. **If any bidder quotes a rates a rate below than the Schedule-"G" rates i.e. rates than at par, then the bidder has to deposit the difference amount i.e. amount between the rates as per at par and below, as work performance guarantee. This amount has to be deposited before the commencement of work and will be refunded after successful completion of work. Lowest bidder will be issued LOA**

(Letter of Acceptance) and within 7 days period he has to deposit difference amount in the form of BG/FDR/NSC. The validity of these shall be for a period three months beyond the stipulated date of completion/actual date of completion. In case of non deposition of the same in specified period the 2% Bid security will be forfeited. In case work is not completed satisfactorily. The work performance security will be forfeited along with bid security.

**SIGNATURE OF CONTRACTOR
WITH FULL ADDRESS:**

**EXECUTIVE ENGINEER P-4 (Elect),
JDA JAIPUR**

JAIPUR DEVELOPMENT AUTHORITY, JAIPUR

Special Terms & Conditions for Electrification work.

1. The Contractor has to give the performance guarantee of the following materials for the period mentioned against them from the date of completion of work:

(a)	Transformers	30 Months
(b)	All types of Insulators	18 Months
(c)	ACSR Conductors	6 Months
(d)	Isolators	6 Months
(e)	Horn gap fuse set	6 Months
(f)	LT Pillar Box	6 Months
(g)	All types of HT/LT cables	18 Months
2. The Contractor has to arrange for the permission for the charging of electrical system from the Electrical Inspector Govt. of Rajasthan. He will have to deposit the necessary fees, which shall be reimbursed by Jaipur Development Authority.
3. The contractor will coordinate for the system handing over and charging process and if any defects, is pointed out by the RSEB/JVVNL, then he will have to rectify the same.
4. The final bill shall be paid after the lines and substations are handed over to RSEB/JVVNL and system is charged.
5. Inspection shall be bear by the contractor it self.
6. The material shall be purchased from the firms, which are also supplying the material to RSEB/JVVNL.
7. All HT/LT cables should be sequentially marked with cable size & length duly embossed.
8. The contractor shall return unused material issued to him by the deptt. If desired by the Engineer in-charge and in case, of failure to do so he shall be charged for such unreturned material at double the issue rate including storage and supervision charges or the market rate whichever is higher. The basis of the theoretical consumption and allowing for wastage @ 5% at double the issue rate including storage and supervision charges or market rate which ever is higher.
9. **The contractor shall be fully responsible to follow safety code as per IS 3764:1992 (upto date). The work should be executed without damaging existing water pipe line, LT/HT electric under ground cable, poles, existing surface drain, water connections, Telephone cables etc. In case of any damages the penalty/ liability imposed for such work shall be borne by the contractor and shall be got repaired immediately by arranging material/ labor/ assistance etc. In case of delay JDA reserve right to execute/ get executed the work at the cost and risk of the contractor.**
10. It is a mandatory condition that contractor will get all insulated material tested from CTL of JVVNL before using it at site.

Executive Engineer P-4 (Elect)

JDA, Jaipur.

I carefully study & do agree for above terms & conditions.

Signature & Seal of the Contractor

4-INSPECTION AND TESTING AT MANUFACTURER'S PREMISES

1. The test of the material and workmanship shall be conducted by the JDA/JVVNL Engineers as necessary. The result of such tests should confirm to be standard laid down in the Indian standards and or the standards laid down in the detailed specification of the JVVNL/ .Public Works.
2. Proper quality control is required to be maintained by the contractor. Qualified personnels having a degree in engineering or as required under the contractor enlistments rules duly approved by the Deptt. Shall have to be engaged at site by the contractor. The Deptt. Reserves the right to engage such staff and recover the expenses from the contractor on such account in case of his failure to do so.
3. The GTP of the material to be used by the contractor shall be submitted 21 days in advance with the Engineer In charge and be got approved by him before use.
4. All inspection and testing shall be carried out in accordance with the Specification and in absence of Specification relevant Indian Standard or internationally approved equivalent standard. After award of contract, Bidder shall furnish QA plan which will be mutually discussed with the Owner and finalized QA plan shall include test and incoming supply of raw materials and bought out items, stage inspections and tests on finished products at manufacturer's works / appropriate testing station. QA plan shall clearly indicate tests which are intended to be witnessed by the Bidder alone and those by both Bidder and Owner.
5. The Contractor shall carry out wherever practical, at the place of manufacture tests of the Plant / Equipment.
6. The Owner shall be entitled to attend the aforesaid inspection and / or tests by his own duly authorized and designated representatives.
7. The Owner and his duly authorized representative shall have access to the Contractor's premises at all suitable times to inspect and examine the material and workmanship of the mechanical and electrical plant and equipment during its manufacture there. If part of the plant and equipment is being manufactured on other premises, the Contractor shall obtain permission for the Owner or his duly authorized representative, to inspect as if the plant and equipment was manufactured on the Contractors own premises. Testing (including testing for chemical analysis and physical properties) shall be carried out by the Contractor and certificates submitted to the Owner who will have the right to witness or inspect the above mentioned inspection / testing at any stage desired by him. Where inspection or testing is to be carried out at a subcontractor's works, a representative of the Contractor shall be present.
8. The procedure for the testing and inspection to be carried out during or following the manufacture of the materials to ensure the quality and workmanship of the materials and to further ensure that they conform to the Contract is whatever place they are specified shall be as described below.
 - (a) The Contractor shall give the Owner at least 21 clear days notice in writing of the date and the place at which any plant or equipment will be ready for inspection/ testing as provided in the Contract. The Owner or his duly authorized representative shall thereupon at his discretion notify the Contractor of his intention either to release such part of the plant and equipment upon receipt of works test certificates or of his intention to inspect. The Owner shall then give notice in writing to the Contractor, and attend at the place so named the said plant and equipment which will be ready for inspection and/or testing. As

and when any plant shall have passed the tests referred to in this section, the Owner shall issue to the Contractor a notification to that effect.

- (b) The Contractor shall forward to the Owner duly certified copies of the test certificates and characteristics performance curves for all equipment.
- (c) If the Owner fails to attend the inspection and/or test, or if it is agreed between the parties that the Owner shall not do so, then the Contractor may proceed with the inspection and/or test in the absence of the Owner and provide the Owner with a certified report of the results thereof as per (b) above.
- (d) If any materials or any part of the works fails to pass any inspection / test, the Contractor shall either rectify or replace such materials or part of the works and shall repeat the inspection and/or test upon giving a notice as per (a) above. Any fault or shortcoming found during any inspection or test shall be rectified to the satisfaction of the Owner before proceeding with further inspection.
- (e) Where the plant and equipment is a composite unit of several individual pieces manufactured in different places, it shall be assembled and tested as one complete working unit, at the maker's works or at site as mutually agreed by the Owner and Contractor.
- (f) Neither the execution of a inspection test of materials or any part of the works, nor the attendance by the Owner, nor the issue of any test certificate pursuant to (c) above shall release the Contractor from any other responsibilities under the Contract.
- (g) The test equipment, meters, instruments etc., used for testing shall be calibrated at recognized test laboratories at regular intervals and valid certificates shall be made available to the Owner's at the time of testing. The calibrating instrument used as standards shall be traceable to National/International standards. Calibration certificates or test instruments shall be produced from a recognized Laboratory for the Owner's consent in advance of testing and if necessary instruments shall be recalibrated or substituted before the commencement of the test.
- (h) Items of plant or control systems not covered by standards shall be tested in accordance with the details and program agreed between the Owner and Contractor.
- (i) Tests shall also be carried out such that due consideration is given to the Site conditions under which the equipment is required to function. The test certificates shall give all details of such tests.
- (j) The Contractor shall establish and submit a detailed procedure for the Inspection of materials or any part of the works to the Owner for approval within the date indicated in the Programme Details. The detailed procedure shall indicate or specify, without limitation, the following:
 - (i) Applicable code, standard and regulations
 - (ii) Fabrication sequence flow chart indicating tests and inspection points
 - (iii) Detailed tests and inspection method, indicating tests and inspection points
 - (iv) All routine tests shall be carried out as per relevant Indian Standard specifications and will be witnessed by the Owner,
 - (v) Acceptance criteria
 - (vi) Test report forms and required code certificates and data records
 - (vii) Method of sampling, if any sampling test to be conducted
 - (viii) Contractor's or Owners witness points.

- (k) The Contractor shall not pack for shipment any part of the Plant until he has obtained from the Owner or his authorized representative his written approval to the release of such part for shipment after any tests required by the Contract have been completed to the Owner's satisfaction.
- (l) The contractor shall be liable to bear all the expenses to carry out the inspection at the manufacture works.

Signature of Contractor/Bidder

Executive Engineer P-4 (Elect)

J.D.A., Jaipur

5-MINIMUM SAFETY RULES

The following are Minimum Safety Rules that apply to all contractors and subcontractors associated with this project. All project personnel have a duty and responsibility to ensure familiarization with project safety requirements and to comply with all requirements established by their employer.

1. **REPORTING HAZARDS:** It is part of each employee's job to report all unsafe conditions/practices to his immediate supervisor for corrective action.
2. **BASIC PERSONAL PROTECTION** for this project includes:
 - a) Safety Hats of the approved type which meet Indian Standard shall be worn while on construction sites (hats shall not be Pressed or altered in any way as to make them defective). Hard hats shall be worn the way they are intended to be worn. Metal hard hats are prohibited.
 - b) Industrial grade safety glasses with side shields meeting ANSI standards Z-87 or equivalent Indian Standards will be worn by all personnel. This also applies to all persons wearing prescription glasses. Additional eye protection may be necessary for various work activities such as grinding, chipping, drilling, chemical handling, etc.
 - c) Hearing protection will be worn at posted high-noise areas or work activities generating high-noise levels.
 - d) Shirts are required when working on a construction site. All shirts will have sleeves. Sleeveless shirts are not permitted.
 - e) Full length trousers are required and must fit properly. Loosely fitting clothing will not be worn.
 - f) Safety shoes or safety boots will be worn in the construction area at all times. No sneakers, open-toed shoes or tennis shoes are allowed. All shoes will be suitable to the construction environment.
 - g) Gloves will be worn when handling materials that may cut, tear or burn hands. Gloves will be in good condition and free of excessive oil or grime.
3. **RESPIRATORS:** Persons engaged in work activities requiring breathing apparatus or respirators will be test-fitted to ensure a proper seal and fitting.
4. **FALL PROTECTION:** Safety Belts/Harnesses shall be worn and used when working at two meter heights (or greater), where approved platforms, ladders, or scaffolds are not provided. Lanyards will be no more than six feet in length. Horizontal or vertical lifelines will be provided and used where no tie-off points are provided. Belts/Harnesses shall be worn properly. All fall protection equipment will

be inspected for defects by the user before each use. Defective or questionable protection equipments shall not be used.

5. **INJURIES:** All persons must report all injuries to their supervisors and obtain first aid (regardless of degree of severity) at the contractor's first aid facility. Each accident must be documented on the Accident Notification Report.
6. **SMOKING:** Smoking within an establish NO SMOKING AREA is strictly prohibited and is sufficient cause for immediate removal of the person found smoking from the site.
7. **ELECTRICAL EQUIPMENT :** Personnel (except electricians), assigned to work on or around specific electrical jobs, will stay clear of all electrical equipment until it is proven safe by qualified electrical personnel.
8. **UNAUTHORIZED USE:** The unauthorized operation of any tool, equipment, switch, vehicles, valves, etc. is strictly prohibited.
9. **MAKESHIFT DEVICES:** Personnel will not fabricate or use makeshift devices such as lifting devices, tools, etc. Specialized tools/equipment are often necessary, but will be properly designed and tested by authorized engineering personnel before use. The modification of tools/equipment or the overriding of safety devices will not be tolerated.
10. **TRUCK RIDING:** Riding in the bed of trucks is prohibited unless seating arrangements conform to client requirements. Personnel are forbidden to ride on loaded trucks, fenders, running boards, sideboards, tailgates, etc.
11. **SEAT BELTS:** All personnel riding in vehicles will fasten seat belts before the vehicle is placed in motion.
12. **HORSEPLAY:** Running, practical jokes, etc. prohibited. Fighting is sufficient cause for immediate dismissal. "Short cutting" of established safe practices or deliberate chance-taking is strictly prohibited.
13. **WORK PERMITS:** If work to be carried out requires a permit, the permit must be obtained before work commences.
14. **EMERGENCY PROCEDURES:** It is part of everyone's job to thoroughly know plant emergency procedures, emergency alarms, location of assembly areas, etc.
15. **WORKING POSITION:** Personnel must always ensure safe working positions. Any person to position himself between a fixed object and a moving piece of equipment is extremely hazardous. Never place yourself between objects which could roll, shift, fall or be displaced. Stay alert to conditions around you at all times.

16. **SAFE & PRESCRIBED METHODS:** All tools and equipment, including motor vehicles will be operated in a safe and prescribed manner at all times. If any person is not sure of the proper method of tool/equipment use, he must immediately inform his supervisor for the person to receive proper direction.
17. **INSTRUCTIONS FROM SUPERVISORS:** Supervisors are responsible for strict compliance and enforcement of project and client safety rules and regulations, and to ensure that workers are made knowledgeable of requirements. All personnel are required to follow instructions from their immediate supervisors. If instructions are not clear or are confusing, the employee has a responsibility to question the supervisor and obtain clear instructions before commencement of work.
18. **CO-OPERATION AND TEAMWORK:** It takes co-operation and teamwork to complete construction projects in a safe, efficient and timely manner. All project personnel are expected to render complete co-operation in the administration and enforcement of the project Safety Program.
19. **CAMERAS:** Employees must not, under any circumstances, bring cameras onto the work site or use a camera on the work site without written approval of Engineer-In-Charge.
20. **DRUGS/ALCOHOL:** The use of illegal drugs and alcohol is strictly prohibited and is cause for immediate removal of the person who is found to be under influence of such drugs / alcohol from the site.
21. **DISCIPLINARY ACTION:** Disciplinary action will be taken against persons violating the stipulations. Serious infractions and/or repeat offenders will be dealt with severely, up to and including permanent removal from the project.
22. **RESPONSIBILITIES:** All persons have a responsibility to themselves and their co-workers to be physically fit and mentally alert at all times. Conditions on a construction site are always in a state of change. Personnel must be able to react accordingly.
23. **LADDERS AND SCAFFOLDS:** All ladders and scaffolding shall be of the approved type. Ladders and scaffolding not meeting standards shall be removed from service. Ladders and scaffolding shall meet Indian Safety Standards or British Standards whichever is more stringent.
LADDERS:
 - a) Ladders shall be inspected prior to use. Defective ladders shall be removed from service.

- b) Ladders used near energized lines or equipment shall be made of non-conductive materials (wood, fiberglass, etc.)
- c) Ladders shall be placed on solid footing. They shall not be placed on unstable objects such as loose bricks.
- d) Employees shall not carry tools, materials, or objects while climbing ladders. Employees shall face the ladder while climbing and avoid leaning from side to side and away from the ladder.
- e) Employees working from ladders shall wear and utilize proper fall protection equipment.
- f) Straight and extension ladders must be secured at the top when in use. Ladders not in use should be removed from the vertical position.
- g) Ladders must be placed at an angle not to exceed one foot of run for every four feet of rise.
- h) Ladders must extend above their upper support or landing by at least 3 feet.
- i) Step ladders must be secured or held when in use.
- j) Employees shall not work from the top step or next to the top step of step ladders.

SCAFFOLDS:

- a) Employees shall not erect, alter or dismantle scaffolds unless directed by a competent person.
- b) Scaffolds shall be erected, should be in plumb, and on sound foundation. Loose bricks, unstable stacks of lumber, etc. shall not be used to level or support scaffolds.
- c) Scaffold materials shall be free of defects.
- d) Work platforms shall be completely decked. (The decking should overhang its end supports at least 6 inches but not more than 12 inches. The decking shall be secured in place).
- e) Work platforms shall be equipped with standard handrails, midrails, and toe boards when 2 meters or more in height.

24. EXCAVATIONS:

- a) When deeper than 5 feet, excavations shall be sloped or shored to prevent caving-in.

- b) Excavations must be barricaded and barricades shall be maintained till back filling is completed.
- c) Excavated earth and any equipment shall be kept at least 2 feet from the edge of excavations.
- d) Access ladders shall be placed within a distance of 25 feet of location of working in excavations of 4 feet deep or deeper.

25. CONFINED SPACE OR VESSEL ENTRY:

- a) Employees shall not enter any confined space unless it has been tested for oxygen contents, absence of flammable gases and/or substances, or any other hazardous materials, and a written permission has been issued.
- b) A man way watch trained in his duties shall be present at any time when personnel are inside confined spaces or vessels.
- c) Portable or hand-held lighting should not exceed 12 volts power source.
- d) Positive ventilation (air movers or fans) shall be used to provide exchange of fresh air in confined spaces and vessels.

26. TAG-OUT, LOCK-OUT PROCEDURES:

- a) Employees shall not perform any work including repair, changes, attachments on electrical circuits, equipment, or mechanical equipment unless the power supply or source of said equipment is positively disconnected or shut off and the concerned electrical department employee places his lock and tag on the disconnect.
- b) Only electrical personnel shall be involved in energizing & de-energizing electrical circuits and equipment.

Signature of Contractor/Bidder

Executive Engineer P-4 (Elect)
J.D.A., Jaipur

6-Guarantee

1. General

The guarantee is applicable for the performance of individual equipment as well as overall performance of the Project.

In case of any contradiction given in this section with respect to those mentioned elsewhere in this document the below mentioned clauses shall prevail.

2. Manufacturer's Guarantees

The manufacturer's guarantee for design, workmanship and performance for all bought out items shall be made available to the owner and shall be valid at least for the entire defects liability period. In the event of failure of any particular equipment which fails more than three times during the guarantee period as mentioned in clause below, the contractor shall replace at his own cost that equipment. Manufacturer's / Contractor's guarantee, for such replaced equipment shall also be made available to the Owner and should be kept at least for one year from the date of last replacement.

3. Performance Guarantee for Electrical Systems

The Contractor shall give guarantee for a period of one year from the date of successful commissioning of the Electrical system against design, defective materials, workmanship and performance. **The contractor shall give guaranteed for HV and MV Panel and performance, quality of cables, luminaries, DB's, Utility sockets as indicated in the bid and as agreed between the owner and contractor before award of contract.** Any defects found in the workmanship, materials or performance of the unit shall be made good by the Contractor at his own expense within the time specified by Engineer-In-Charge.

In case the parameters vary from what is required, the Contractor shall rectify the equipment at no extra cost so as to achieve the requisite performance guarantee and satisfy commissioning of the equipment to the Engineer-In-Charge. In case the Contractor fails to achieve any of the aforesaid guarantees he will be penalized by an amount as per rule up to 10% (ten percent) of the total contract value. For this purpose any money due to the Contractor shall be forfeited and adjusted against such penalty.

4. Equipment Guarantee

The Contractor shall guarantee for the period of one year from the date of successful commissioning of the Electrical System against defective performance of all equipment / instruments / mechanical or electrical parts under Contractor's scope of supply. Any defects found either in materials or workmanship shall be made good by

the Contractor at his own expense within the time specified by the Engineer-In-Charge.

5. Testing and Trial Run

The contractor shall have to try test each process equipment used for the Electrical System for about 48 hours continuous running to the full satisfaction of the Engineer-In-Charge. After satisfactory testing of the individual equipment, the Contractor shall run the whole Electrical System at no extra cost to the owner for at least 30 days as directed by the Engineer-In-Charge and ensure the treated waste water quality. Necessary instruments, gauges, supervisory personnel etc. shall be furnished / provided by the Contractor free of cost for conducting the trial runs.

6. Commissioning and Handing Over

During trial runs as described above, the Contractor shall satisfy the Engineer-In-Charge in all respects regarding the satisfactory quality of materials; equipment and workmanship used in the Electrical System and guaranteed parameters. Only after satisfying himself, regarding the above points, the Engineer-In-Charge will issue the completion certificate and take over the Electrical System and such date of taking over shall be deemed as date of commissioning. The Defects Liability Period described above will start from this date.

Signature of Contractor/Bidder

Executive Engineer P-4 (Elect)

J.D.A., Jaipur

7-ERECTION, TESTING AND COMMISSIONING

1. ERECTION - GENERAL

- 1.1 The Contractor's staff shall include adequate and competent erection Engineer with proven, suitable, previous experience on similar contracts to supervise the erection of the Works and sufficient skilled, semi-skilled and unskilled labour to ensure completion of Works in time. The Contractor shall not remove any representative, erector or skilled labour from the Site without prior approval of the Owner.
- 1.2 The Contractor shall ensure that no installation or erection work shall commence until full and unconditionally approved working drawings, signed and stamped by the Owner are available at Site.
- 1.3 The Contractor's erection staff shall arrive on the Site on dates to be agreed by the Owner. Before they proceed to the Site, however, the Contractor shall first satisfy himself, as necessary, that sufficient Electrical System of his (or his sub-contractor's) supply has arrived on Site so that there will be no delay on this account.
- 1.4 One erection engineer who shall be required to be the Contractor's representative shall be conversant with the erection and commissioning of the complete Works. Should there be more than one erector, one shall be in charge and the Contractor shall inform the Owner in writing which erector is designated as his representative and is in charge. Erection engineer is to report to Project Manager.
- 1.5 The Contractor shall be responsible for setting up and erecting the Electrical System to the line and levels of reference and of the positions, levels dimensions and alignment, appliances and labour in connection therewith. The checking of setting out of any line or level by the Owner shall not in any way relieve the Contractor of his responsibility for the correctness thereof.
- 1.6 Erection of Electrical System shall be phased in such a manner so as not to obstruct the work being done by other contractors or operating staff who may be present at the time. Before commencing any erection work, the Contractor shall check the dimension of structures where the various items of Electrical Systems are to be installed and shall bring any deviations from the required position, lines or dimensions to the notice of the Owner. Electrical System shall be erected in a neat and workmanlike manner on the foundations and at the locations shown on the approved drawings. Unless otherwise directed by the Owner, the Contractor shall adhere strictly to the aforesaid approved drawings. If any damage is caused by the Contractor during the course of erection to new or existing Electrical System or buildings or any part thereof, the Contractor shall, at no additional cost to the Owner, make good, repair or

replace the damage, promptly and effectively as directed by the Owner and to the Owners satisfaction.

- 1.7 The Contractor shall align all equipment and holding down bolts and shall inform the Owner before proceeding with grouting-in. the items concerned. The Contractor shall ensure that all equipment is securely held and remains in correct alignment before, during and after grouting-in.
- 1.8 The approval by the Owner of the Contractors proposals for rigging and hoisting any items of the Electrical System into final positions shall not relieve the Contractor from his responsibility for damage to completed structures, parts or members thereof or other installed equipment. He shall at his own cost make good, repair or replace any damaged or injured items, whether structural, electrical, architectural, or of any other description, promptly and effectively to the satisfaction of the Owner.
- 1.9 No Electrical Systems or other loads shall be moved across the floors of structures without first covering the floors with timber of sufficient size so that applied loads will be transferred to floor beams and girders of steel or concrete. If it is required to reduce bending stresses and deflection, the beams and girders shall be provided with temporary supports. Any movement of Electrical System and other loads over the floor structures shall be subjected to the prior approval of the Owner.
- 1.10 During erection of the Electrical System, the Owner will inspect the installation from time to time in the presence of the Contractor's Site representative to establish conformity with the requirements of the Specification. Any deviations and deficiencies found or evidence of unsatisfactory workmanship shall be corrected as instructed by the Owner.

2 LEVELING AND GROUTING OF MACHINERY

- 2.1 Contractor shall check the civil works, where the Electrical System is to be installed sufficiently in advance, for their conformity to the approved drawings for installing the Electrical System with respect to lines, levels and accuracies of positions embedment, anchorage pockets, cutouts etc. He shall record all measurements and deviations in prescribed control formats. He shall proceed with the work, with the Owners consent to such preparatory inspection of works.
- 2.2 Contractor shall mark precisely the centre lines and datum reference on the civil works, where the Electrical System is to be installed with reference to bench marks, using indelible means of marking.
- 2.3 He shall undertake sufficiently in advance chipping of any unevenness of concrete on foundations, anchor bolt pockets, cutouts etc., to achieve uniform level of reference

for erection. All concrete surfaces receiving grout shall be hacked as required to ensure better bonding with grouting.

- 2.4 Contractor shall undertake the inspection of all components to be erected sufficiently in advance to check their soundness and conformity to drawings and the inspection records shall be signed by the Owner as approval for undertaking the installation of the components. Any damage, shortfalls etc. shall be made good to the satisfaction of the Owner.
- 2.5 All grout for equipment shall be carried out using non-shrinkable continuous grout materials with suitable framework of at least 12 mm thickness. Surfaces to receive the grout shall be hacked and roughened and laitance shall be removed by wire brushing or blast of air. Concrete surface shall be blown off by compressed air before commencing grouting. Grouting shall be done in one continuous operation from one side such that grout flows in a single wave until grout reaches all confined spaces with no air pockets and air from all confined spaces is expelled. A hydrostatic head of 150 mm shall be maintained during grouting operations hydrostatic head of 150 mm shall be maintained during grouting operations. All grouting shall be carried out in the presence of the Owner. All lines and levels shall be checked up after grout is set. Block outs shall be closed using cement concrete of the same grade as that of the parent structure.

3. RECORDS, PROCEDURES AND REPORTS

- 3.1 The Contractor shall maintain records pertaining to the quality of installation/erection work and inspection, testing, compliance with all technical requirements in respect of all his works as described in the previous paragraphs. The reporting formats shall be in the approved formats. The Contractor shall submit such records to the Owner after the completion of any particular work before submitting the bill of supply/progress of work. Such report shall comprise shop inspection reports, shop testing reports, material test reports, based on which dispatch clearances are provided, all the quality control reports of welding, erection and alignment records.
- 3.2 All the above mentioned records shall be submitted in the final form duly countersigned by the Owner attesting conformity to specifications and his approval of installation, and duly incorporating all the additions, alterations, and information as required by the Owner, on the basis of preliminary reports giving the progress of the work. Such records notwithstanding, any records submitted earlier with bill of supply/progress etc., shall be duly bound and submitted to the Owner in six copies by the Contractor on his notification of the Electrical completion of erection.

4. GENERAL PREPARATIONS BEFORE COMPLETION OF THE ELECTRICAL SYSTEM

4.1 The following documents should be completed in accordance with the Contract schedule before completion of erection. The Owner and the Contractor shall preserve and control these documents in a safe and appropriate place on Site in order that both parties' personnel can make use of them at any time.

(a) Technical Documents

(I) Operation and Maintenance manual

(ii) Design documents including the Contractor's design data, drawings and Specifications.

(iii) Tools and test equipment list

(iv) Spare parts list

(b) Procedures

(i) Mechanical testing procedure

(ii) Electrical testing procedure

(iii) Instrumentation testing procedure

(iv) Detailed Pre-commissioning and Commissioning procedure

(v) Detailed Performance Test procedure

5. COMPLETION OF ERECTION

5.1 The completion of Electrical System under erection by the Contractor shall be deemed to occur, if all the units of the Electrical System are structurally and electrically complete and will include among other such responsibilities the following:

(a) Electrical System in the Scope of the Contract has been erected, installed and grouted as per specifications.

(b) Installation checks are completed and approved by the Owner

(c) The erected Electrical Systems are totally ready for commissioning checks.

5.2 At the stage of completion of erection, the Contractor shall ensure that all the physical, aesthetic and workmanship aspects are totally complete and the Electrical System is fit and sound to undergo tests on completion and subsequent pre-commissioning checks.

5.3 Upon achieving the completion as described above, the Contractor shall notify the Owner by a written notice intimating completion of erection and notify the Owner for inspection. The Owner shall proceed with the inspection of such units within 14 days of such a notice.

(a) The Owner shall certify completion when there are no defaults in the Works or

- (b) The Owner shall inform the Contractor list of deficiencies for rectification hereinafter referred as Punch list and the Contractor shall complete the rectification work within a jointly agreed period before pre-commissioning activities and obtain the Owner's acceptance or approval of the same before proceeding with the same.
 - (c) The Owner may inform the Contractor that the works are accepted with the 'Punch' list (items which do not hamper operability safety or maintainability) and allow the Contractors to proceed with the pre-commissioning checks when the Contractor undertakes to complete such outstanding works within an agreed time during defects liability period. Taking over shall be based on rectification of all deficiencies as advised by Punch lists.
- 5.4 The erection period indicated by the Contractor would be deemed to cover all the activities up to Completion as stipulated in previous paragraphs, notice of completion by the Contractor, inspection by the Owner for Completion, and Contractor rectification of all deficiencies as noticed by the deficiency/Punch list, and acceptance by the Owner of such rectifications, prior to Tests on Completion.
- 5.5 Minor defects, which in the opinion of the Owner which do not hamper operability and maintainability will nor be taken into account for deciding Electrical Completion. Such defects shall be rectified concurrent to commissioning checks before Tests on Completion. However, the Owner's decision in this regard is final.
- 5.6 The commissioning period as notified by the Contractor shall be deemed to occur beyond the date of Completion and shall include all periods of pre-commissioning, trials and Tests on completion.
- 5.7 It is in the Contractor's interest to offer the section/units/systems, progressively under the identified milestones within overall erection period, duly completed for rectification of any deficiencies pointed out by the Owner and to achieve Electrical Completion before undertaking the tests on Completion within the specified erection period. The Owner also reserves the right to withhold the cost as estimated to be equivalent to the rectification of deficiencies pointed out to the Contractor until such a time such deficiencies are rectified to the satisfaction to the satisfaction of the Owner.

6. PRE-COMMISSIONING

- 6.1 After the Completion of erection, Pre-commissioning activates listed below shall be carried out to make the Electrical System ready for Commissioning.
- 6.2 Upon completion of erection of each piece of equipment, facility or discrete part of the Electrical System, Electrical checks and tests shall be carried out according to the Contractor's checklist. The Electrical checks and tests shall be to establish that.

- (a) The Electrical System is erected in accordance with the Contractor's construction drawings, pipe work drawings, instrument diagrams, etc. issued for the Electrical System.
 - (b) The materials are installed and electrically function in accordance with the Contract and
 - (c) Applicable codes as listed in the Contract are followed for materials and workmanship.
- 6.3 Items such as painting, thermal insulation and final clean up which do not materially affect the operation or safety of the Electrical System will be excluded. All these items shall be listed and completed after the Pre-commissioning or Commissioning at the discretion of the Contractor, but before acceptance.
- 6.4 The Contractor shall prepare and maintain at Site test forms and records that shall include:
- (a) Description of type of test or check
 - (b) Date and time of test or check
 - (c) Identification of equipment and facilities
 - (d) Test pressure, test data and results, including remarks, if any
 - (e) Signature of the Contractor's personnel attesting to data recorded, if any.
- The Contractor's construction forces thereof shall carry out checks, tests and recording.
- 6.5 Wherever the Owner's witness or attesting of the check or test is required, the Owner's personnel shall attend such check and test. For this purpose, the Contractor shall keep the Owner informed of a day-to-day test plan schedule. The test plan schedule may be revised from time to time to reflect the actual progress of the work and test.
- 6.6 Any items found incomplete or requiring repair or adjustment shall be marked as such on the test records and then reported by the Contractor to the Owner and the Contractor's personnel in charge of the relevant construction area.
- 6.7 Checking procedures shall be repeated until all the items on the checklist are cleared
- 6.8 A complete set of test records shall be handed over to the Owner on completion.
- 6.9 The tests on the different Mechanical and Electrical equipment shall include but not limited to:
- (a) Pump motors

Condition of winding insulation be tested and insulation values shall be restored to required level by suitable heating arrangements locally.

- (b) MV Switch board / Power Distribution Boards
 - (i) Checking of all internal wiring for correctness as per supplier's drawings.
 - (ii) Insulation resistance test.
 - (iii) CT Polarity Test / PT Ratio Test.
 - (iv) Operational check of instruments and testing of relays by primary / secondary injection.
 - (v) Phase sequence test.
 - (vi) Functional simulation test.
 - (vii) Local & Remote Operation.
- (c) Power and Control Cables
 - (i) All cores of cables shall be tested individually for continuity and insulation resistance with earth/sheath/armour as well as between the cores, before as well as after installation.
 - (ii) Pressure test as per relevant IS will be carried out on all 11 kV cables together with joints.
- (d) Distribution Boards / Switch Socket Outlets
 - (i) Checking of wiring as per drawing.
 - (ii) Insulation resistance.
 - (iii) Functional test.
- (e) Tests for Earthing System
 - (i) The resistance of each earth pit shall be measured and recorded.
 - (ii) The resistance of the complete earthing system shall be less than 1.0 ohm or values specified by the local Electrical Inspector whichever is less.
 - (iii) Earthing continuity tests shall be carried out for all the equipment.

7. COMMISSIONING

7.1 After the completion of Pre-commissioning activities the final checks and preparations necessary for start-up of the Electrical System shall be carried out. The Contractor shall submit to the Owner a written Notice of Electrical Completion that shall include:

- (a) Identity of a part of the Electrical System considered electrically complete
- (b) A copy of relevant completed test reports
- (c) The date on which the completion of the tests was achieved
- (d) Check list and

- (e) A request for issuance of a Electrical Completion Certificate in respect of that part.
- 7.2 Within fourteen (14) days from the date of receipt of the Contractor's written Notice, the Owner shall:
- (a) In the case of acceptance, issue a Electrical Completion Certificate
 - (b) In the case of Objection, submit a rejection Statement setting forth remaining items to be completed or defects of deficiencies to be corrected before Electrical Completion status can be accepted. When the Owner rejects the Contractor's Notice the Contractor shall take any necessary action to complete or correct the items marked and give the Owner a second Notice of Electrical Completion.
- 7.3 After the issuance by the Owner of a Electrical Completion Certificate, Commissioning activities listed below shall be carried out to enable the start-up and operation of the Electrical System Procedures are described as below:
- (a) Commissioning Procedure shall be carried out in a methodical sequence as follows
 - (i) Warming up
 - (ii) Start-up
 - (iii) Initial running –
 - (iv) Operability adjustment
 - (v) Stable operation
 - (vi) Final adjustment
 - (b) At all stages of commissioning sequence, the Electrical System shall be operated at optimum Electrical System conditions. To ensure this, the Contractor may make minor adjustment to the conditions indicated in the Operation and Maintenance Manual as necessary.
 - (c) The Contractor shall check the operating conditions of the Electrical System by constantly monitoring operating data.
 - (d) The Contractor shall specify for each discrete part of the Electrical System the operational data to be recorded and the manner in which the data is to be taken.
 - (e) All the operating data shall be recorded by the Owner on the forms to be mutually agreed. The Owner shall make a copy of the operating log and analytical data from

initial operation through to the completion of Performance Test available to the Contractor for evaluation.

8. PERFORMANCE TEST

- 8.1 After the final operation of the Electrical System, a Performance Test shall be carried out to demonstrate the Contractor's Performance Guarantee.
- 8.2 Prior to conducting Performance Test, the Contractor shall furnish the detailed Performance Test Procedure for approval.
- 8.3 Performance test shall be carried out by the Contractor's personnel according to the instructions set forth in the Contractor's Operation and Maintenance Manual and under the supervision of Owner's operating personnel.
- 8.4 Operating and analytical data recorded during Performance test shall be taken down by the Owner and made available to the Contractor for evaluation.

9. ACCEPTANCE

9.1 Acceptance will occur in any of the three following possible ways:

(a) Fulfillment of Guarantees

When Performance Test has been successfully completed and the Performance Guarantees are met.

(b) Deemed Acceptance

When Performance Test has not been completed or has not been carried out for reasons not attributable to the Contractor within specified date or other mutually agreed period.

Signature of Contractor/Bidder

Executive Engineer P-4 (Elect)

J.D.A., Jaipur

8-GTP of RMU

Electrical/Mechanical data.-12 Kv-28Kv-1min

Nominal voltage: 11kV

Rated frequency: 50 Hz

Rated current bus bars: 630 A

Rated current cable switch disconnecter: 630 A

Short time withstand current:

Cable time withstand current:

Cable switch disconnecter with interface C (400-bolt) bushing: 20 kArms 3 sec.

Vacuum circuit breaker with interface C (400-bolt) bushing: 20 kArms 3 sec.

Rated current for transformer T-off: 630 A

Impulse withstand voltage:

To earth and between phases: 75 kV

Insulation Level:

Power frequency 1 min: 28 KV

Metal Enclosed Switchgear:	IEC 62271-200
General Purpose switches	IECd 60265-1
Disconnectors and Earthing switches	IEC 62271-102
Circuit Breakers:	IEC 62271-100
Common Clauses:	IEC 60694
Pressure of SF6 gas:	1.4 bar at 20c
Cable bushings:	DIN 47636
Temperature class	-25c-+50c outdoor
Degree of protection:	
SF6 tank:	IP 67
Cable cover:	IP 2X
Cable cover:	IP 3X
Earth bar (external):	Min 240 mm ² Cu
Bolt Dimension:	Min 120 mm ² Cu-
Protection:	M10
and F/F	Self powered Relay O/C
Enclosure:	IS 632

Detailed JVVNL specifications are required to be followed.

Annexure A : Compliance with the code of Integrity and No Conflict of Interest

Any person participating in a procurement process shall –

- (a) Not offer any bribe, reward or gift or any material benefit either directly or indirectly in exchange for an unfair advantage in procurement process or to otherwise influence the procurement process;
- (b) Not misrepresent or omit the misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
- (c) Not indulge in any collusion, Bid rigging or anti-competitive behaviour to impair the transparency, fairness and progress of the procurement process;
- (d) Not misuse any information shared between the procuring Entity and the Bidders with an intent to gain unfair advantage in the procurement process;
- (e) Not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
- (f) Not obstruct any investigation or audit of a procurement process;
- (g) Disclose conflict of interest, if any; and
- (h) Disclose any previous transgressions with any Entity in India or any other country during the last three years or any debarment by any other procuring entity.

Conflict of Interest :-

The Bidder participating in a bidding process must not have a Conflict of interest. A conflict of interest is considered to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations.

- i. A Bidder may be considered to be in Conflict of Interest with one or more parties in a bidding process if, including but not limited to:
 - a. Have controlling partners/shareholders in common ; or
 - b. Receive or have received any direct or indirect subsidy from any of them; or
 - c. Have the same legal representative for purposes of the Bid; or
 - d. Have a relationship with each other; directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the Procuring Entity regarding the bidding process; or
 - e. The Bidder participates in more than one Bid in a bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the Bidder is involved. However, this does not limit the inclusion of the same subcontractor, not otherwise participating as a Bidder, in more than one Bid; or
 - f. The Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Goods, Works or Services that are the subject of the Bid; or
 - g. Bidder or any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as engineer-in-charge/ consultant for the contract.

Annexure B : Declaration by the Bidder regarding Qualifications Declaration by the Bidder

In relation to my/our Bid submitted to for procurement of
..... in response to their Notice inviting Bids No.
.....Dated I/We hereby declare under Section 7 of Rajasthan Transparency in
Public Procurement Act, 2012, that :

1. I/We possess the necessary professional, technical, financial and managerial resources and competence required by the Bidding Document issued by the Procuring Entity;
2. I/We have fulfilled my/our obligation to pay such of the taxes payable to the Union and the State Government or any local authority as specified in the Bidding Document;
3. I/We are not insolvent, in receivership, bankrupt or being wound up, not have my/our affairs administered by a court or a judicial officer, not have my/our business activities suspended and not the subject of legal proceeding for any of the foregoing reasons;
4. I/We do not have, and our directors and officers not have, been convicted of any criminal offence related to my/our professional conduct or the making of false statements or misrepresentations as to my/our qualifications to enter into a procurement Contract within a period of three years preceding the commencement of this procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;
5. I/We do not have a conflict of interest as specified in the Act, Rules and the Bidding Document, which materially affects fair competition;

Date :

Signature of bidder

Place :

Name :

Designation :

Address :

Annexure C : Grievance Redressal during Procurement Process

The designation and address of the First Appellate Authority is **Executive Committee, JDA, Jaipur**

The designation and address of the Second Appellate Authority **ACS/PS, UDH, GOR, Jaipur.**

• Filing an appeal

If any Bidder or prospective bidder is aggrieved that any decision, action or omission of the Procuring Entity is in contravention to the provisions of the Act or the Rules or the Guidelines issued thereunder, he may file an appeal to First Appellate Authority, as specified in the Bidding Document within a period of ten days from the date of such decision or action, omission, as the case may be, clearly giving the specific ground or grounds on which he feels aggrieved: Provided that after the declaration of a Bidder as successful the appeal may be filed only by a Bidder who has participated in procurement proceedings: Provided further that in case a Procuring Entity evaluates the Technical Bids before the opening of the Financial Bids, an appeal related to the matter of Financial Bids may be filed only by a Bidder whose Technical Bid is found to be acceptable.

(2) The officer to whom an appeal is filed under para (1) shall deal with the appeal as expeditiously as possible and shall endeavour to dispose it of within thirty days from the date of the appeal.

(3) If the officer designated under para (1) fails to dispose of the appeal filed within the period specified in para (2), or if the Bidder or prospective bidder or the Procuring Entity is aggrieved by the order passed by the First Appellate Authority, the Bidder or prospective bidder or the Procuring Entity, as the case may be, may file a second appeal to Second Appellate Authority specified in the Bidding Document in this behalf within fifteen days from the expiry of the period specified in para (2) or of the date of receipt of the order passed by the First Appellate Authority, as the case may be.

(4) Appeal not to lie in certain cases

No appeal shall lie against any decision of the Procuring Entity relating to the following matters, namely :-

- (a) Determination of need of procurement;
- (b) Provisions limiting participation of Bidders in the Bid process;
- (c) The decision of whether or not to enter into negotiations;
- (d) Cancellation of a procurement process;
- (e) Applicability of the provisions of confidentiality.

(5) Form of Appeal

(a) An appeal under para (1) or (3) above shall be in the annexed form along with as many copies as there are respondents in the appeal.

(b) Every appeal shall be accompanied by an order appealed against, if any, affidavit verifying the facts stated in the appeal and proof of payment of fee.

(c) Every appeal may be presented to First Appellate Authority or Second Appellate Authority, as the case may be, in person or through registered post or authorized representative.

(6) Fee for filing appeal

(a) Fee for first appeal shall be rupees two thousand five hundred and for second appeal shall be rupees ten thousand, which shall be non-refundable.

(b) The fee shall be paid in the form of bank demand draft or banker's cheque of a Scheduled Bank in India payable in the name of Appellate Authority concerned.

(7) Procedure for disposal of appeal

(a) The First Appellate Authority or Second Appellate Authority, as the case may be, upon filing of appeal, shall issue notice accompanied by copy of appeal, affidavit and documents, if any, to the respondents and fix date of hearing.

(b) On the date fixed for hearing, the First Appellate Authority or Second Appellate Authority, as the case may be, shall,-

(i) Hear all the parties to appeal present before him; and

(ii) Peruse or inspect documents, relevant records or copies thereof relating to the matter.

(c) After hearing the parties, perusal or inspection of documents and relevant records or copies thereof relating to the matter, the Appellate Authority concerned shall pass an order in writing and provide the copy of order to the parties to appeal free of cost.

(d) The order passed under sub-clause (c) above shall also be placed on the State Public Procurement Portal.

FORM No. 1

[See Rule 83]

**Memorandum of Appeal under the Rajasthan
Transparency in Public Procurement Act, 2012**

Appeal No. of

Before the (First/Second Appellate Authority)

1. Particulars of appellant :

(i) Name of the appellant :

(ii) Official address, if any :

(iii) Residential address :

2. Name and address of the respondent (s) :

(i)

(ii)

(iii)

3. Number and date of the order appealed against and name and designation of the officer/authority who passed the order (enclose copy), or a statement of a decision, action or omission of the Procuring Entity in contravention to the provisions of the Act by which the appellant is aggrieved:

4. If the Appellant proposes to be represented by a representative, the name and postal address of the representative:

5. Number of affidavits and documents enclosed with the appeal :

6. Grounds of appeal :

(Supported by an affidavit)

7. Prayer :

Place

Date

Appellant's Signature

Annexure D : Additional Conditions of Contract

• Correction of arithmetical errors

Provided that a Financial Bid is substantially responsive, the Procuring Entity will correct arithmetical errors during evaluation of Financial Bids on the following basis:

- i. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Procuring Entity there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
- ii. If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected and . If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (i) and (ii) above.

If the Bidder that submitted the lowest evaluated Bid does not accept the correction of errors, its Bid shall be disqualified and its Bid Security shall be forfeited or its Bid Securing Declaration shall be executed.

2. Procuring Entity's Right to Vary Quantities

- (i) If the Procuring Entity does not procure any subject matter of procurement or procures less than the quantity specified in the Bidding Document due to change in circumstances, the Bidder shall not be entitled for any claim or compensation except otherwise provided in the Conditions of Contract.
- (ii) On repeat order for extra items for additional quantity may be placed if it is provided in the bidding documents on the rates and conditions given in the contract, if the original order was given after inviting open competitive bids. Delivery or completion period may also be proportionately increase. The limits of repeat order shall be as under.
 - (a) 50% of the qty of the individual items and 50% of the value of original contract in case of works and
 - (b) 50% of the value of goods or services of the original contract.

3. Dividing quantities among more than one Bidder at the time of award (In case of procurement of Goods)

As a general rule all the quantities of the subject matter of procurement shall be procured from the Bidder, whose Bid is accepted. However, when it is considered that the quantity of the subject matter of procurement to be procured is very large and it may not be in the capacity of the Bidder, whose Bid is accepted, to deliver the entire quantity or when it is considered that the subject matter of procurement to be procured is of critical and vital nature, in such cases, the quantity may be divided between the Bidder, whose Bid is accepted and the second lowest Bidder or even more Bidders in that order, in a fair, transparent and equitable manner at the rates of the Bidder, whose Bid is accepted.

Tender Inviting Authority: Jaipur Development Authority, Jaipur						
Name of Work: Electrification work of JDA residential Scheme Murtikala Vihar at Village Rojda, Jaipur						
Contract No: NIB No-EE-P-4-Elect/10/2015-16						
Bidder Name:		Less (-)		%		
<u>SCHEDULE OF WORKS</u>						
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)						
Sl. No.	Description of work	No. or Qty.	Unit	Estimated Rate		AMOUNT Rs. P
				Figure	Words	
1.00	P/Laying P.V.C. / XLPE insulated & P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor of IS:1554 P-I / IS :7098 P - I of Group 1 of approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand, IInd class bricks covering, refilling earth, compaction of earth, making necessary connection, testing etc. as required of size. 185.0 Sq.mm 3.5 core	1008.00	Mtr.	917.00	Rupees Nine Hundred & Seventeen Only	924336.00
2.00	P & Laying XLPE insulated IS:7098/II/85 of Group1 and approved make H.T.cable for working voltage 11 K.V.Earthed direct in ground including excavation of 30cmx100cm size trench, 25cm layer of river sand, IInd class bricks covering, refilling earth, compaction of earth, making necessary connection testing etc.as required of size. 3 core 185.0 Sq.mm	6500.00	Mtr.	1266.00	Rupees One Thousand Two Hundred & Sixty Six Only	8229000.00
3.00	P & Laying XLPE insulated IS:7098/II/85 of Group1 and approved make H.T.cable for working voltage 33 K.V.Earthed direct in ground including excavation of 30cmx120cm size trench, 25cm layer of river sand, IInd class bricks covering, refilling earth, compaction of earth, making necessary connection testing etc.as required of size. 3 core 300.0 Sq.mm	14900.00	Mtr.	2486.00	Rupees Two Thousand Four Hundred & Eighty Six Only	37041400.00
4.00	Providing & making heat shrinkable type indoor/outdoor/straight through terminations/joint kit of Group1 and approved make suitable for XLPE insulated 11 KV / 33 KV cable, with required components, prepration of cable ends,testing etc. as required of following sizes .					
4.01	11 KV End Termination Kit Outdoor type 3 core 120/150/185/225 Sq.mm	76.00	Set	6500.00	Rupees Six Thousand Five Hundred Only	494000.00
4.02	11 KV Straight Through Joint Kit 3 core 120/150/185/225 Sq.mm	8.00	Set	15000.00	Rupees Fifteen Thousand Only	120000.00

4.03	33 KV End Termination Kit Outdoor type 3 core 240/400 Sq.mm	68.00	Set	10106.40	Rupees Ten Thousand One Hundred & Six and Paise Forty Only	687235.20
4.04	33 KV Straight Through Joint Kit 3 core 240/400 Sq.mm	64.00	Set	30286.80	Rupees Thirty Thousand Two Hundred & Eighty Six and Paise Eighty Only	1938355.20
5.00	Plate Earthing as per IS:3043 with G.I. Earth plate of size 600mm x 600mm x 6.0mm by embodying 3 to 4 mtr. below the ground level with 25 mm dia. G.I. 'B' class watering Pipe including all accessories like nut, bolts, reducer ,nipple, wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size 300mm x 300mm complete with alternate layers of salt and coke/charcoal, testing of earth resistance as required.	172.00	Set	4250.00	Rupees Four Thousand Two Hundred & Fifty Only	731000.00
6.00	Supply and erection of P.C.C./R.C.C. pole as per REC manual no 15/1979 conforming to IS: 2905/1966 including excavation of pit and back filling with stone aggregate/boulders and soil in 0.45m consolidating each deposited layer of 0.45m by ramming and watering etc complete in all respect.					
6.01	9.0 Mtr long (200 Kg) as per Discom specification	483.00	Each	3859.20	Rupees Three Thousand Eight Hundred & Fifty Nine and Paise Twenty Only	1863993.60
6.02	9.0 Mtr long (400 Kg) as per Discom specification	66.00	Each	4328.40	Rupees Four Thousand Three Hundred & Twenty Eight and Paise Forty Only	285674.40
7.00	Supply and erection of GI stay set as per Discom specification complete with long stay rod with anchor plate including stay clamps turn buckle and G.I stay wire tightened through strain insulator, in cement concrete 1:3:6 including excavation of pit-re-filling etc as reqd.					
7.01	Stay set of dia 20mm, 2.4m long stay rod and anchor plate 380x380x6.4mm	25.00	Each	1319.00	Rupees One Thousand Three Hundred & Nineteen Only	32975.00

7.02	Stay set of dia 16mm,1.8m long stay rod and anchor plate 300x300x6.4mm	30.00	Each	785.00	Rupees Seven Hundred & Eighty Five Only	23550.00
8.00	Supplying and laying of 7/3.15 mm hot dipped galvanized stay wire as required	1120.00	Mtr	25.00	Rupees Twenty Five Only	28000.00
9.00	Supply and fixing of piller box made of 2 mm thick powder coated CRCA sheet of 415 volts 3 phase 4 wire triple pole and neutral type, complete in all respect as required. Including knife switch of 400 amp. rating , HRC fuses with copper one piece U contacts base, brass studs and nuts, copper busbar for main and interconnection, MS angle frame of 50 x 50 x 6 mm grouted with C.C. of M-10 grade to achieve the height of 1.5 feet above the road level suitable for four outgoing.	23.00	Each	42500.00	Rupees Forty Two Thousand Five Hundred Only	977500.00
10.00	Supply and fixing of following LT Supporting accessories with nut bolt & Clamps made out as per standard Discom's specifications.					
10.01	LT cross arm 600 mm long with clamp	620.00	Each	280.00	Rupees Two Hundred & Eighty Only	173600.00
10.02	LT cross arm 1200 mm long with clamp	620.00	Each	480.00	Rupees Four Hundred & Eighty Only	297600.00
11.00	Supply and fixing of LT porcelain pin insulator as per IS 1445-1997 suitable for working voltage 1100 volts including all accessories like hot dip GI forged spindle of 260mm long and nuts etc as reqd as per Discom specification. 120mm x 85mm	1540.00	Each	85.00	Rupees Eighty Five Only	130900.00
12.00	Supply and fixing of porcelain shackle insulator as per IS:1443 1979 suitable for working on 1100 volts including hot dipped GI accessories and heavy duty hardwares etc as required as per Discom specification. 100mm x 110mm	675.00	Each	120.00	Rupees One Hundred & Twenty Only	81000.00
13.00	Supplying and drawing overhead steel core Aluminium conductor (ACSR) ISI marked (IS 398 part II-1996) on existing cross arms through insulator with all necessary T&P required including binding and twisting etc. complete in all respect as required as per Discom specification.					
13.01	50 Sqmm of (6+1) 3.35 mm (Insulated Rabbit)	56918.00	Mtr.	62.00	Rupees Sixty Two Only	3528916.00
13.02	100 sqmm of (6/4.72 mm+1/1.57 mm) (Dog)	1120.00	Mtr.	89.00	Rupees Eighty Nine Only	99680.00
14.00	Supply and fixing of 'V' type cross arms made of MS channel on the existing poles complete including all necessary nut and bolt etc with clamps as per Discom specification. 11kV cross arms (75 x 40 x 6.8 kg/mtr)	66.00	Each	850.00	Rupees Eight Hundred & Fifty Only	56100.00
15.00	Supply and fixing of top hamper on the existing pole complete including nut bolts etc as required. Vertical type 11 kV (.7m long) (65 x 65	66.00	Each	315.00	Rupees Three	20790.00

	x6mm angle)				Hundred & Fifteen Only	
16.00	Supply and fixing 11kV pin insulator(IS 731/ 1971) with minimum creepage distance of 300mm on existing bracket including all accessories like hot dipped GI spindle and nuts etc (as per specificationof Discom).	254.00	Each	135.00	Rupees One Hundred & Thirty Five Only	34290.00
17.00	Supply and fixing 100 Amp, 11kV Horn gap fuse set IS 9385 on existing DP structure with 6 nos 24kV/22kV post insulator (IS:5350 part III), hot dipped hard ware,fuse wire of required size etc. complete in all respect as per specification given by Discom. (	28.00	Each	6050.00	Rupees Six Thousand & Fifty Only	169400.00
18.00	Supply and fixing of 11kV, 400 Amp 3pole, central pot rotating double break type isolator (IS:9921 part I toV) without earth blade operating mechanism with GI spring loaded reverse loop type fixed contact, solid hard drawn electrolytic copper tubular moving contact with silver/ nickel plated at end points, 9 nos post insulator of 12 kV (IS:2554 & IS 5350 part III), hot dipped galvanising hard ware, nut, bolts etc complete in all respect as per specification of Discom.(Type tested by ERDA/CPRI.)	34.00	Each	13150.00	Rupees Thirteen Thousand One Hundred & Fifty Only	447100.00
19.00	Supply and fixing double pole structure for 11/0.4 Kv substation as per Discom specification complete in all respect as required including nuts and bolts etc (excluding the cost of poles) made of MS channel of 4 nos 100 x 50 x 6mm and 4 nos 75 x 40 x 6mm and MS flat 50 x 6mm as per Discom specifications.	28.00	Each	9570.00	Rupees Nine Thousand Five Hundred & Seventy Only	267960.00
20.00	Providing and fixing of single pole mounted structure set for isolator as per Discom specification complete in all respect with nuts and bolts as required MS flat 50 x 6mm, MS angle 65 x 65 x6mm, MS channel 100 x 50 x 6mm. (Excluding cost of pole).	22.00	Each	2385.00	Rupees Two Thousand Three Hundred & Eighty Five Only	52470.00
21.00	S & Laying following size' B ' class G.I. Pipe confirming to IS : 1239 P - 1 (1990) with accessories for laying earth conductor/strip / cable in ground/surface/recess as required 100 mm dia.	228.00	Mtr.	667.00	Rupees Six Hundred & Sixty Seven Only	152076.00
22.00	Supply and fixing 11kV Disc insulator (IS 731/ 1971) with minimum creepage distance of 300mm on existing bracket including all accessories like hot dipped GI spindle and nuts etc (as per specificationof Discom).					
22.01	B & S type hardware 45 KN	18.00	Each	560.00	Rupees Five Hundred & Sixty Only	10080.00
22.02	B & S disc insulator 45 KN	36.00	Each	406.00	Rupees Four Hundred & Six Only	14616.00

23.00	Supply & Erection of lattice structure of height 12.8 mtr in alignment, including excavation of pit and Providing and laying of cement concrete in ratio 1:3:6 using 43 grade cement, river sand and 12 mm to 20 graded blast crusher broken in pit/ found cement plaster upto 0.50mtr. from top to bottom in 1:3:6 ratio and paint of tower of approved make two coat of red oxide paint and one coat of aluminium paint before installation and one coat of paint after irrection work completed as per technical specifications & drawing of DISCOM.	16.00	Each	42250.00	Rupees Forty Two Thousand Two Hundred & Fifty Only	676000.00
24.00	Supply and fixing 33kV pin insulator(IS 731/ 1971) with minimum creepage distance of 300mm on existing bracket including all accessories like hot dipped GI spindle and nuts etc as per technical specifications & drawing of DISCOM.	48.00	Each	450.00	Rupees Four Hundred & Fifty Only	21600.00
25.00	SITC of Cutting back up surface up to 2 Mtr. Depth by digging by Bogi including all layers of crust for laying pipe line etc. and making good to original condition (excluding cost of bitumen)	1000.00	Mtr.	360.00	Rupees Three Hundred & Sixty Only	360000.00
Total Estimated Cost in Figures						59971197.40
Quoted Amount					59971197.40	59971197.00
Quoted Rate in Words		Rupees Five Crore Ninety Nine Lakh Seventy One Thousand One Hundred & Ninety Seven Only				