

**Two Part Bid**

**JODHPUR VIDYUT VITRAN NIGAM LIMITED
OFFICE OF THE SUPERINTENDING ENGINEER (MM&C)
NEW POWER HOUSE INDUSTRIAL AREA, JODHPUR.
TELEPHONE: 0291-2742223 / FAX:- 0291-2746539**

**SPECIFICATION NO. JDVVNL/SE/MM&C/TN-1282
COMMON METER READING INSTRUMENT (CMRI)**

Tenders are hereby invited in e-tender system for purchase of COMMON METER READING INSTRUMENT (CMRI)

Tenders are to be submitted online in electronic format on website <http://www.eproc.rajasthan.gov.in>. The details are as under-

S.No.	Name of Item	Quantity (Approx)
<u>COMMON METER READING INSTRUMENT (CMRI)</u>		
1.	CMRI	300 Nos.

A.	NIT No.	TN-1282
B.	Cost of Specification	Rs. 2,500.00 per set (Two Thousand Five Hundred only)
C.	Processing of RISL	Rs. 1,000.00 per set (One Thousand only)
D.	Earnest money	Rs. 1.5 Lac / Exemption Certificate or vendor registration of category class `A/B/C/D`.
E.	Validity	120 days after the date of opening of techno-commercial bid.

IMPORTANT DATES

S.N.	Events	Date & Time	Location
1.	Last Date of downloading of tender specifications	Up to 01.12.16 (06:00 PM)	www.idvvn.com & http://www.eproc.rajasthan.gov.in
2.	Last Date of Deposit of cost of Tender Specifications, Processing fee & Earnest Money	Up to 01.12.16 (4:00 PM)	Office of Sr. A.O (Cash & CPC), JdVVNL , New Power House, Industrial Area, Jodhpur
3.	Last Date & time of submission of electronic bid	Up to 02.12.16 (12:00 PM)	http://www.eproc.rajasthan.gov.in
4.	Opening of Technical Bid	02.12.16 (03:00 PM)	http://www.eproc.rajasthan.gov.in
5.	Opening of Price Bid	To be intimated separately to the qualified bidders	http://www.eproc.rajasthan.gov.in

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NOTE:

Note: The bidders, in their own interest are requested to read very carefully Section-I (Instruction to Bidders), Section-II (General Condition of Contract) & Section-III (Technical Specification) before filling the bid. The Bid documents can be downloaded from website of Jodhpur Discom www.jdvvn.com & <http://eproc.rajasthan.gov.in> & can be uploaded on the website <http://eproc.rajasthan.gov.in>. No hard copy of the bidding documents will be provided to the bidders through this office. In case of any discrepancy found in the bidding documents downloaded from the website and appended with the bid (as a bid document) and the original copy of such document available in the office of Superintending Engineer (MM&C), Jodhpur Discom, Jodhpur then the copy available with Superintending Engineer (MM&C), Jodhpur Discom, Jodhpur will be considered as final document for all purposes. The proof of depositing the cost of Bid document, EMD or Vendor registration certificate (if applicable) and tender processing fee be furnished upto 4:00 PM of one day prior to the date of tender opening in the manner prescribed in bid document.



SECTION-III

SUPPLY OF COMMON METER READING INSTRUMENT AGAINST TN-1282

3.01 SCOPE

This specification is intended to cover the design, manufacture, assembly, testing, supply and delivery of Common Meter Reading Instrument (CMRI) **along with all associated software** for reading (uploading) the data of different makes of meters, and dumping (downloading) the same to the base computer system. The CMRI should have memory/space to reside software for communicating with and reading at least 8-9 different makes of meters e.g. SEMs, L&T, Duke Arnics, Data Pro, ABB, Genus, HPL, Omni Agate, CGS etc.

3.02 SCHEDULE OF TECHNICAL SPECIFICATION.

3.02.1 STANDARDS:

The CMRI shall conform in all respects to the following standards:

- i) CBIP Report no. 88 (July 96) – Specification for A.C. Static Electrical Energy Meters first Division and CBIP Report Mp. III (for software protocol).
- ii) IS:13010/1990 Specification for A.C. Watt hour meters class 0.5.1 & 2.
- iii) IS : 13779/1992 Specification for A.C. Static Watt Hour meter Class 1 & 2.
- iv) IEC 687/1992 Alternating Current Static Watt Hour meters for active energy class 0.5S and 0.2S.
- v) IS:1036 : 1996 – Alternating Current Static Watt Hour meters for active energy (class 1&2).
- vi) IFC 529 Degree of protection provided by enclosures.
- vii) IS: 12063/1987 Classification of degrees of protection provided by enclosures of electrical equipment.
- viii) IS: 9000/1979 Basic environmental testing procedure for electronic and electrical items.
- ix) IEC – 1000 – Electromagnetic compatibility.
- x) IEC – 1000-42 : 1995 – Electrostatic discharge immunity test.
- xi) IEC – 1000-43: 1995 – Radiated, radio – frequency electromagnetic field immunity test.
- xii) CISPAR 22 – Limits and method of measurement of radio disturbance characteristics of information technology equipment.
- xiii) IEC62056.

The CMRI meeting any other national or international standards which ensure equal or better quality than the standards mentioned above will also be

considered but in such cases, a copy of the standard (authenticated English version) should be enclosed with the tender.

3.02.2 CLIMATIC CONDITIONS:

The CMRI shall be suitable for continuous satisfactory operation under climatic conditions listed below:

a) Temperature range

Specified operating range	: 10°C to 50°C
Limit range for storage & transport	: 25°C to 70°C

b) Relative humidity :

i) Annual mean	: 75%
ii) For 30 days, these days being spread in a natural manner over one year	: 95%
iii) Occasionally on other days	: 85
iv) Average number of dust storm days per annum	: 35
v) Isoceraunic Level	: 45
vi) Average No. of rainy days per year	: Nearly 120 days
vii) 9.8. Average annual rain fall	: 900 mm
viii) Altitude above mean sea level	: Less than 1000 Mtrs.
ix) Maximum wind pressure	: 195 Kg/Sq Mtr

3.02.3 PRINCIPAL PARAMETERS:

For downloading data of HT / LT Trivector meters, the meter reading device shall be portable, compact and battery powered. It should be capable of reading/ gathering data's from various makes of Trivector Meters equipped with suitable communication ports and transferring them on to a base computer system such as an IBM/HP/DELL compatible PC.

The capability of the CMRI shall be designed for the number of meters it can read at one time with and without load survey data. However, CMRI shall be suitable for reading at least 20 meters for billing & tamper data but without load survey and minimum 10 meters for billing and tamper data with load survey.

CMRI should be able to display phasor / vector diagram of phase currents, phase voltages with respective phase angles and phase sequence of voltage at site when these data are read from the meter or alternatively wire verification software which given the values of voltages, currents & phase angles, can verify the wiring & display the type of error to enable suitable correction.

3.02.4 GENERAL TECHNICAL REQUIREMENTS:

(A) PHYSICAL CHARACTERISTICS

- (i) Size : CMRI shall be handy and small in size for ease of portability. The maximum dimensions shall not exceed 250x100x60 mm (LxWxH).

However, the display portion could be wider. Weight of CMRI including batteries shall not exceed one Kg.

- (ii) Enclosure : The casing shall be of electrical insulating material of high thermal stability and mechanical strength. Its degree of protection shall be level (1) conform to IP 65 requirements as per IS12063/IEC 60529.

The CMRI enclosure shall be solvent resistant and shall be provided with a suitable holding strap for proper gripping and carrying case.

- (iii) Ruggedness: The CMRI shall be able to withstand harsh field, environmental conditions without physical damage or loss of data. The tests for this requirement are given in the testing procedures as detailed in the specification.

- (iv) Display: The display of the CMRI shall have the following characteristics:
- a) Easy readability in varying ambient light conditions.
 - b) A minimum of 4 lines and **20 characters** per line on the screen.
 - c) Size of the upper case alpha character to be minimum 4 mm.
 - d) Contrast and intensity control to get a clear display in varying ambient light.
 - e) The CMRI shall have graphics capability in its display.
 - f) **Be able to display phase/ vector diagram of phase current, phase voltage with respective phase angles and phase sequence of voltage.**

- (v) Key Board: The Key board of the CMRI shall have the following attributes:
- a) Long operational life i.e. minimum 1,00,000 operations.
 - b) Feedback for key press acknowledgement to user.
 - c) Legible and non-fading keypad imprints.
 - d) Any alphanumeric character shall be available with sequential operation of maximum 3 keys.
 - e) **Each English alphabet shall have a separate key.**

- (vi) INPUT\OUTPUT PORTS (I\O ports):

The CMRI shall have minimum two serial input\output port(s). One port shall be serial port, RS232C compatible. The second port may be used for convenience of connecting peripherals such as bar-code reader printer, battery charger, loader-charger etc.

- (vii) The CMRI shall be able to provide power supply for optical sensor used for meter reading application. **Also there shall also be one port for transferring the data through PSTN connection**

- (viii) The CMRI should be provided with industrial grade gold plated connector with longer leads.

(B.) PHYSICAL INTERFACE:**(i) Interface between Meter and CMRI**

The interface between a meter and CMRI shall consist of two parts.

- a) Meter optical sensor cable terminating into a 9 pin D type male connector with a cable of 500 mm. + 10 mm. length.
- b) CMRI cable should have matching 9 pin D type female connector of 1500 mm \pm 10 mm length with electrical circuit.

(ii) Interface between CMRI and Base Computer Station & Printer **and for data and software download/ transfer.**

Suitable cable for communication between CMRI and base computer system and/or printer shall be provided. This communication shall be serial RS-232C. On the BCS end of the cable, a 9-pin D type female connector shall be provided.

(iii) All connecting cables described above in 5 (B) (i) a & b and (ii) above shall be made of flexible material and shall be shielded. The two ends of each type of cable shall be stress relieved. The cable specified at clause 5(B) (i) (b) above shall also be suitable for connection between CMRI and Base Computer System.

The supplier shall supply one additional set of cables for interfacing between CMRI to Meter & Base Computer Station along with one set normally required to be provided as specified above. Both connecting cables described above in (i) & (ii) shall be made of flexible material and shall be shielded. The two ends of each type of cable shall be stress relieved.

3.02.5 HARDWARE AND SOFTWARE REQUIREMENT:**(i) Operating Systems :**

- a) Only licensed versions shall be used.
- b) OS shall support to load / run Meter Reading applications for legacy energy meters.
- c) CMRI shall support latest WINDOWS XP, WINDOWS 7 & LINUX.
- d) Support for loading upgrades like patches or new versions in the same hardware as and when required. The upgraded version shall support all currently running application programs.

The additional programs necessary to transfer application programs with serial/USB ports shall be provided.

(ii) **Memory**: The CMRI shall have memory of minimum 8 GB, upgradeable up to 64 GB Flash, atleast 512 MB RAM, CMRI shall display balance memory while booting. BIOS / OS on Flash / EPROM memory shall be provided. Provision shall be made for user expandable memory slot (SDCARD / CF or other compatible easily available storage devices).The CMRI should have the provision for

scalability of Memory upgradation/expandability to capture meter data for different D.I.P's in future,viz; blocks of 15 min,or,10 min or even 5 min as the case may be.

(iii) **Communication:**

The CMRI shall be required to communicate in following different modes:

- a) Downloading/uploading data/programmable data, from/to the meter.
- b) Uploading/Downloading configuration settings/ data to/from the Base computer station.
- c) The CMRI shall be able to read barcoded information using a bar code scanner from barcodes for AC static/electromechanical electricity meters.
- d) CMRI should have provision to read meters with IR communication installed in our base and should also have provision for LPR, GSM / GPRS / CDMA / WLAN / Blue Tooth Communication modules.
- e) CMRI should have capability of transferring data to base computer software through Serial, USB ports.
- f) CMRI shall have flexible baud rate ranging from 300 baud to 115,200 baud to cater Communication needs stated above.
- g) CMRI shall have facilities for data downloading through GPRS. Suitable access card to GPRS is to be provided in the CMRI.

iv) **Real time clock:**

A real time clock shall be provided in the common meter reading instrument and shall have the following features:

- i) Power Requirement : The clock shall have a min. of 1 Year battery backup.
- ii) Calendar : The clock shall have a 20 years calendar.
- iii) Time drift : The time drift of the real time clock, considering all influencing quantities shall not exceed 5 seconds per day or 2Min. per month.

(v) **Time-Setting Facility:**

The common meter reading instrument shall have the facility to get its time set from the Base computer station. Proper security for this shall be ensured. The date-time setting facility from the keyboard of CMRI should be inhibited.

The meter specific MRI shall have the ability to use CMRI real time clock to tag all time related events.

(vi) **Power Supply (Battery):**

The common meter reading instrument shall have the following features for its power requirements:-

- a) The common meter reading instrument shall be powered by rechargeable battery.
- b) In the event of failure of rechargeable battery, the user should be able to replace the batteries / battery pack without opening the manufacturers seal.

- c) The average capacity of a charged battery shall be sufficient to communicate with meters and base computer station for at least;
 - i) SIX HOURS while communicating through optical interface of meters and
 - ii) EIGHT HOURS without powering I/O ports for optical interface or printer etc.
- d) To reduce the equipment down time and inventories, there shall be provision to charge the MRI battery without being removed from the equipment. A suitable battery charger for automatic charging of MRI battery shall be provided.
- e) There shall be a provision for AUTO POWER SAVE, which shall force the instrument in the power saving mode in case of no activity within 5 minutes.
- f) The MRI shall have battery low indication and automatic cut off to avoid further drain of the battery. The battery status should be indicated suitably on the LCD display itself, which clearly indicate the amount of charge available. The CMRI should continuously display remaining capacity
- g) CMRI shall be provided with high capacity Li Ion/Li Polymer rechargeable Battery of at least 2600 mAh.

3.02.6 COMMUNICATION PROTOCOL AND SOFTWARE:

- a) **Protocol: The CMRI shall be compliant to IBM PC RS-232 protocol. It shall provide open architecture for any type of static meter communication for the following standard / proprietary protocols.**
 - i- IEC 1107 –CGS, DataPro, Duke Arnics and L&T.**
 - ii- ANSI –ABB and GE.**
 - iii- PACT – SEMS.**
 - iv-Interoperability software provided by forum of meter manufacturers.**
- b) The CMRI supplier shall provide following softwares:
 - i) WINDOWS XP, WINDOWS 7 or higher & Latest LINUX operating system (RedHat or Suse).
 - ii) Necessary software for loading application programs via a serial/USB port for uploading and down loading between CMRI and Base computer station.
- c) Special requirement: A third party software may also be loaded for special applications such as manual meter reading, data entry, printing, display of balance memory etc.
- d) The CMRI should have facility to draw/display vector diagram of the electrical conditions existing at site to check the healthiness of the connections.
- e) The CMRI should have provision to read the energy registers with the help of software of meters manufacturer. (To be provided by the purchaser) so that accuracy testing can be done at site with standard calibrating equipment.

f) The CMRI should have provision to read the various instantaneous electrical parameters at site like voltages, current, PF, phase angles, power (KW, KVA, KVAR), frequency etc. with the help of software of meters manufacturer.(to be provided by the purchaser).

g) The CMRI should have facility to estimate the memory space available before reading the meters.

3.02.7 DATA SECURITY

The meter manufacturers are responsible for maintaining the security of the data extracted from the meters using Manufacturer specific algorithms in the software up to down loading to BCS. In meeting this requirement normal delete function using DEL command is inhibited. No operator shall be able to delete any file created by meter reading software in CMRI before loading to PC.

3.02.8 TYPE TESTS: The following shall constitute type tests:

SN	Tests	For requirement Ref. to
A	TESTS OF MECHANICAL REQUIREMENT	
i.	Free fall test	IS 9000 (part VII Sec. 4) 1979 (Reaffirmed 2004)
ii.	Shock test	IS: 9000 (Part VII Sec 1) 2006
iii.	Vibration test	IS 9000 (part VIII) 1981 (Reaffirmed 2009)
B	TESTS OF CLIMATIC INFLUENCES	
i.	Protection against penetration of dust and water IP:65	IS:12063, 1987 (Reaffirmed 2009)
ii.	Dry heat test	IS: 9000 (Part III – Sec. I to V) 1977 (Reaffirmed 2007)
iii.	Cold test	IS: 9000 (Part II Sec. I to IV) 1977 (Reaffirmed 2007)
iv.	Damp heat cyclic test :	IS: 9000 (Part V Sec. I & II) 1981 (Reaffirmed 2007)
C	TESTS FOR ELECTROMAGNETIC COMPATIBILITY (EMC)	
i.	Test of Immunity to Electrostatic discharges	IEC: 6100042 (2008)
ii.	Test of Immunity to Electromagnetic Radiated Susceptibility	IEC: 6100043, 2010
iii.	Radio Interference Measurement	As per CISPR 22, 2008

3.02.8(a) Test(s) of Mechanical Requirement:

(i) Free fall test:

The CMRI shall be subjected by the method specified in IS: 9000 (Part VII/Sec.4) 1979 to free fall as detailed below.

- a) Number of falls 2
 b) Height of fall 2000 mm

- c) Method of release To allow free fall from horizontal position of normal suspension, with a minimum disturbance at the moment of release with LCD display facing upwards.

After conclusion of the test there shall not be any physical damage and loss\change of data. The functionality of the CMRI shall not be affected.

3.02.8(b) Shock test:

The CMRI shall be subjected to shock test by method specified in section 1 of IS9000(Part 7-Sec 1) -1979 to shocks as described below

- a) Peak acceleration: $400 \text{ m/s} \times S$ (40g)
- b) Pulse Shape: Half sine wave.
- c) Pulse duration: 18 ms
- d) Number of shock: Two in both directions of three mutual perpendicular axes (total of 12 shocks)

The test shall be conducted on a different test specimen for each direction of shock (also on a specimen different from one to be used for the vibration test)

After conclusion of the test there shall not be any physical damage and loss\change of data. The functionality of the CMRI shall not be affected.

3.02.8(c) Vibration test:

The CMRI shall be subjected by the method specified in IS 9000(Part/8):1981 to vibrations as detailed below.

- a) Range and Sweep frequency: 10-150-10 Hz)
- b) Cut-off frequency: 16.7 Hz
- c) Amplitude: (between 10Hz and 16.7Hz) 4mm peak to peak
- d) Acceleration: (between 16.7 Hz & 150Hz) 2.2g (g=acceleration due to gravity)
- e) Sweep rate: One Octave per minute
- f) Duratio: 1 hour in each direction.
- g) Directions: Along three mutually perpendicular axis(in the directions of upper and lower, right and left, back & forth)

The test shall be conducted on a different specimen for each direction of vibration. After conclusion of the test, there shall not be any physical damage and loss\change of data. The functionality of the CMRI shall not be affected.

3.02.8(d) Tests of climatic influences:

- (i) Tests of Protection against Penetration of Dust and Water.

These shall be carried out according to IS: 12063 under the following conditions:

- a) Protection against penetration of dust CMRI in non-operating condition. The test should be conducted with sample length of cable (exposed ends sealed) of the type specified by the manufacturer in place. First characteristic digit 6 (IP 6X).

Any ingress of dust shall be only in a quantity not impairing the operation of the CMRI.

b) Protection against penetration of water: CMRI shall meet the requirements of level 1 (1st characteristic digit) IP 65 in power-off condition. After conclusion of the test, the CMRI shall show no damage or loss \ change of the data. The functionality of the CMRI shall not be affected

(ii) Dry Heat test.

The test shall be carried out according to IS-9000(Part III-Section I and V of 77) under the following conditions:

CMRI	OFF
Temperature	+70 Deg. C +/-2 Deg. C.
Duration of the test.	72 hrs.

After conclusion of the test, the CMRI shall show no damage or loss\change of the data. The functionality of the CMRI shall not be affected

(iii) Cold Test

The test shall be carried out according to IS: 9000(Part II/Section III of 77), under the following conditions:

CMRI	OFF
Temperature	-25 Deg. C +/- 3 Deg. C.
Duration of the test.	72 Hrs.

After conclusion of the test, the CMRI shall show no damage or loss\change of the data. The functionality of the CMRI shall not be affected.

(iv) Damp Heat Cyclic Test

The test shall be carried out according to IS:9000 (Part V of 81), under the following conditions:

- CMRI powered up
- Variant 1
- Upper temperature: +50 deg.C
- No special precautions to be taken regarding the removal of surface moisture.
- Duration of the test: 6 cycles.

24 hours after the conclusion of the test there shall not be any physical damage and loss\change of data. The functionality of CMRI shall not be affected.

3.02.8(e) Tests for electromagnetic compatibility (EMC):

General Test Conditions: For all these tests the CMRI shall be in its normal working position. After these tests the CMRI shall show no damage and operate correctly without loss of data.

(i) Test of Immunity of Electrostatic Discharges

The tests shall be carried out according to IEC: 1000-4- 2(1995), under the following conditions:

Test voltage.	15kV air discharge.
Number of discharges	10
Severity Level	4

After application of the electrostatic discharge the CMRI shall show no damage or change of data. The functionality of the CMRI shall not be affected.

(ii) Test of Immunity to Electromagnetic HF Fields

The test shall be carried out according to IEC: 1000-4-39\1995, under the following Conditions:

CMRI ON

Frequency band 80MHz to 1000MHz:

Test field strength 10V/m

After conclusion of the test, the CMRI shall show no damage or loss\change of the data. The functionality of the CMRI shall not be affected.

(iii) Radio Interference Measurement:

The test for radiated disturbance shall be carried out according to table 4, clause 6 of CISPR 22 for frequency range of 30 MHz to 1000MHz.

3.02.8(f) ACCEPTANCE TESTS: All the routine & acceptance test shall be carried out as per relevant ISS/IEC.

The following tests shall be conducted in the presence of purchaser's representative for the acceptance of the material.

a) Functionality Test of the Key Board: The CMRI shall be tested for proper functionality of the Key Board.

b) Free Fall Test:

The CMRI shall be subjected to Free Fall Test as details below (minimum 1no. Sample shall be selected for this test).

i) No of falls : 2

ii) Height of fall : 2000 mm

iii) Method of release: To allow free fall from horizontal position of normal suspension, with minimum disturbance at the moment of release with LCD display facing upwards.

After conclusion of the test there shall not be any physical damage and loss/damage of data. The functionality of the CMRI shall not be affected.

c) Compatibility with different makes of meters and facility for spot billing:

Tests for accepting the software for the purpose of reading and programming of different makes of static meters available with Jodhpur Discom i.e. mainly SEMs , DATA PRO, DUKE ARNICS , L&T , ABB ,GENUS ,HPL ,OMNIAGATE ,CGS etc. and shall be verified for compatibility communication with the meters.

The CMRI shall be capable of communicating with the meters and retrieving the data. Similarly the spot billing software will be loaded into CMRI and shall be verified for its suitability.

This test either shall be carried at manufacturer's premises or in the meter test labs of the Jodhpur Discom, at Purchaser's convenience.

The CMRI shall be accepted only if it is found suitable for communicating with/retrieving from different makes of meters and suitability for spot billing. The purchaser shall provide the software of specific meters, which are to be interfaced with CMRI.

Immediately after finalization of the Programme of acceptance/ routine testing, the manufacturers shall give fifteen days advance intimation to the purchaser, to enable him to depute his representative for witnessing the tests.

3.03 DRAWING & TECHNICAL LITERATURE:

One set of drawing, descriptive literature and instructions manual for operation of CMRI being supplied shall be enclosed with the offer.

3.04 SPECIAL REQUIREMENT:

A third party software may also be loaded for special applications such as manual meter reading, data entry, printing, display of balance memory etc.

DATA SECURITY: The meter manufacturers are responsible for maintaining the security of the data extracted from the meters using manufacturer specific algorithms (non compliant to IEC62056) in the software up to down loading to BCS.

3.05 PHYSICAL INTERFACE:

INTERFACE BETWEEN METER AND CMRI:

- a) Meter optical sensor terminating into a 9 pin D type male connector with a cable of 500 mm length with electrical circuit.
- b) Pin function listing (Female Connector)

PIN Signal Name

- 01 Carrier Detector (CD)
- 02 Receive Data (R X D)
- 03 Transmit Data (T X D)
- 04 Data Terminal ready (DTR)
- 05 Signal Ground (SG)
- 06 Data Set ready (DSR)
- 07 Request to send (RTS)
- 08 Clear to send (CTS)
- 09 Power Supply (+4.5Vto12.5V)

- c) This cable will be supplied by the CMRI manufacturer.

INTERFACE BETWEEN CMRI AND BASE COMPUTER STATION

Suitable cable for communication between CMRI and base computer station shall be provided. This communication shall be Serial RS 232 C. On the BCS end of the cable 9 pin D type female connector shall be provided. The cable shall be supplied by the CMRI manufacturer. Both connecting cables described

above shall be made of flexible material and shall be shielded. The two ends of each type of cable shall be stress relieved.

3.06 GUARANTEED TECHNICAL & OTHER PARTICULARS:

The tenderer shall furnish complete guaranteed and other particulars of material offered by him as per Schedule-V.

3.07 TYPE TEST CERTIFICATES:

Along with tender necessary type test certificates (not older than three years from date of opening of tender) from any CPRI/ERDA/NABL accredited test lab is required for offered material.

3.08 INSPECTION & TESTING:

Inspection & testing shall be as per relevant IS/GTP'S of PO. The inspecting officer shall select 5% samples randomly from the offered lot for physical verification and inspection as per specification and purchase order.

The suppliers should satisfy themselves that the stores are in accordance with the terms of the contract and fully confirm to required specifications by carrying out a through pre-inspection of each quota before tending the same for inspection to the inspecting officer nominated by the purchaser. Such pre-inspection on the part of the suppliers would minimize the chances of rejection in inspection.

The material shall be tested and inspected by an authorized inspecting officer of the purchaser before dispatch. The purchaser reserves the right to get the material tested in any testing laboratory before dispatch.

3.09 PREFERENCE:

The offers of standard make and directly from the manufacturers/traders quoting shorter delivery period shall be preferred.

3.10 DEPARTURE FROM SPECIFICATION:

Should the tender wish to depart from the specification in any respect, he should clearly state such departures indicating the reasons thereof only in Schedule VI-A & B. Unless this is done, the departmental specification will hold good and shall be binding on the supplier unless the departures have been approved in writing by the purchaser.

3.11 TENDERS:

Tender shall furnish complete particulars of the material offered by them in regard to this specification and submit the same with their tender in single copy.

Failure to do so or any incomplete entry therein may prevent a tender from being considered.

3.12 GENERAL

The tenders received without complete details required as per enclosed forms/schedules are liable to be rejected.

3.13 SAFETY REQUIREMENTS

All supplied Equipment shall be designed & constructed in such a way as to avoid introducing any danger in normal use and under normal working conditions, so as to ensure especially Personal safety against electric shock/ against effects of excessive voltage and Safety against spread of fire etc. The design of the equipment should be based on relevant safety standard as applicable for offered equipment enabling safe operation.

3.14 AUTHORIZATION CERTIFICATE:

Authorization letter from the original manufacturers confirming that you are the authorized dealer / distributor in the region and you are authorized to quote on their behalf should be furnished with the offer. In case of offering an imported brand a letter from the manufacturers confirming that you are their authorized representative in the country and you are authorized to quote on their behalf is essentially required with the offer.

3.15 PACKING AND FORWARDING

The packing of the equipment shall be such that it should not get damaged during transit. Each test set shall be supplied with suitable packing for easy transportation, rugged use and to prevent damage during transit in addition to packing as per relevant clause of GCC. The supplied equipments should be immune to vibrations and shocks in normal transportation and handling.

3.16 COMPLETENESS OF EQUIPMENT:

Any fittings accessories or apparatus, which may not have been specifically mentioned in the specification, shall be deemed to be included and shall be supplied by the supplier without any extra charges. The equipment shall be a complete unit in all respect whether such details are mentioned in this specification or not.

3.17 INSTALLATION AND COMMISSIONING:

The installation and commissioning of the equipment at Central Test Lab, Jodhpur / Stores of Jodhpur Discom as specified, wherever applicable shall be got arranged by the supplier through service engineer of the manufacturer free of cost particularly in case of Porosity Testing Machine, Capacitor bank, Green

Generator Set of 50 KVA capacity and Automatic Transformer BDV Test set etc. irrespective of whether it is mentioned in the specifications or not.

3.18 MAINTENANCE AND GUARANTEE:

It shall be governed by clause 1.40 of GCC except that the guarantee shall be for a period of 3 years from the date of supply. The equipment found defective within the above guarantee period shall be repaired /replaced by the supplier free of cost within one month of receipt of intimation.

3.19 AFTER SALE SERVICE:

The bidder has to indicate clearly what type after sales service shall be provided within guarantee period and outside guarantee period and address of sales service centre, details of engineers shall be submitted with offer.

3.20 GUARANTEED TECHNICAL PARTICULARS:

A statement of guaranteed technical particulars shall be furnished in the format attached as per Schedule V-A along with the bid without which the Bid shall be treated as Non-Responsive.

3.21 PRICES:

The bidder must quote prices on "FIRM" price basis inclusive of all applicable taxes & duties with complete break up of unit FOR price of individual equipment included in this specifications. The prices shall be quoted item wise as per details of items and their standard accessories necessarily for all items of this specifications failing which tender offer may be rejected.

3.22 DELIVERY SCHEDULE:

The commencement period for supply shall be 30 days from the date of receipt of PO and supply shall be completed within one month.

**SCHEDULE-I****SCHEDULE OF REQUIREMENT**

S.N.	Description of the equipment required	Quantity (Nos.)
1.	Common Meter Reading Instrument (CMRI)	300

Note: The quantity indicated above is only provisional and the purchaser reserves the right to either revise the same or purchase any ratio in any number as per requirement at the time of deciding the tender.

SCHEDULE-III (A)

PRE-QUALIFICATION REQUIREMENT

The bidder should fulfill following qualification requirements for successful participating in the bid along with relevant documentary evidence supporting each qualifying requirement without which the offer shall be considered non responsive & rejected.

1.0 Status of bidder:

a) The bidder should be manufacturer of offered item. The offers from authorized dealer/ sole selling agent/sole distributor shall not be entertained.

b) Old / new Suppliers:- Any bidder located within or outside the state of Rajasthan has participated for the first time in a particular Discom & meeting minimum qualification requirement and has supplied the tendered material/or of higher rating in other utility shall be treated as an old supplier. Rajasthan's firms although supplied in past but not meeting minimum quantity supplied criterion including altogether new units which have not supplied any quantity but having adequate & required manufacturing and testing facility and technical know-how of the tendered material shall be considered as new firms and would be eligible for trial order only. In case of supply made to the licensed power utility outside India, the C.A. certificate furnished by firm shall be considered.

2.0 Past supply and performance criteria:

The bidder shall meet both past supply and performance criteria as detailed below for opening of bids.

2.01) PAST SUPPLY

2.01.1 The bidder is required to quote for minimum 10% of tendered quantity failing which their offer may be considered Non-Responsive.

2.01.2 The bidder should have designed, manufactured / fabricated, tested and supplied to utility / Discoms / Govt. Departments at least 2 X QQ (QQ being the quoted quantity) of similar item / higher rating of tendered material / equipment in last 3 financial years from the date of opening of technical-commercial bid.

Note: Requirement of quantity manufactured, minimum quantity to be offered and amount of Bank Guarantee to be furnished in absence of test certificate shall be reduced to 25% for Rajasthan based units.

2.01.3 In support of fulfillment of the past supply criteria, the bidder shall furnish documentary evidence in the form of certificate from Chartered Accountant in the enclosed prescribed proforma only. This prescribed proforma should be furnished either in original or copy duly attested by Notary. The bidder shall also sign and affix seal on the C.A. Certificate. The certificate should have membership number with the name & address of the chartered accountant. Certificate should clearly indicate the quantity supplied, period of supply, voltage Class, Rating of the Transformer etc. in the format prescribed, any deviation to format or information diverted format, will not be considered and rejected.

Note:-The material supplied and accepted for same/higher rating for Turnkey projects to a licensed power utility/Govt. shall be considered for the purpose of evaluating criteria. The certificate given by C.A. shall indicate above quantity separately.

3. PERFORMANCE CRITERIA

(i) If a bidder could supply upto 50% of ordered quantity in previous bid upto date of opening of subsequent bid and scheduled delivery period expired, the bid of such bidder will not be opened in the Discom for that item.

(ii) However, if the supplies have been completed for a quantity more than 50% but not completed upto date of opening of subsequent bid and scheduled delivery period expired, then quantity equal to the quantity pending in previous bid for that item shall be reduced from the subsequent bid quantity to be allocated to the bidder.

4. TYPE TEST CRITERIA

a The bidder shall furnish valid and authenticated type test certificate from a Govt. approved/ a Govt. recognized/ NABL accredited laboratory/ ILAC i.e. International Laboratory Accredited laboratory / ILAC i.e International Laboratory Accrediation Corporation (In case of foreign laboratory) of similar rating and design of tendered material. The bid of the bidders be also considered for meeting the Type Test criterion if the bidder have the requisite type test conducted successfully on the samples selected from the 1st Lot supplied to JdVVNL against previous tenders and its report are available with the Nigam & furnish certified copy of such Type Test Reports with the bid or reference of order / tender be mentioned in Bid document for verification purpose . Such type test certificates should not be older than five years as on the date of bid opening. For this purpose date of conducting type tests will be considered.

b) The type test certificates by in house laboratory of bidding firm even if it is a Govt approved/ Govt recognized/ NABL accredited Laboratory / ILAC accredited, shall not be accepted, in case of their own bid. This will not apply if bidding firm is Govt. Company/ Public Sector Undertaking.

c) The bidder should furnish documentary evidence in support of the laboratory whose type test have been furnished, that the said laboratory is a Govt. / a Govt. approved / a Govt. recognized / NABL accredited laboratory / ILAC accredited (in case of foreign laboratory).

d) The type test certificates shall be furnished either in original or duly attested by notary.

e) The bids of only those bidders shall be considered to be meeting the type test criteria who furnishes complete type test certificates with the bid as per above provision.

f) However, in following cases the Bidder is not in a position to furnish Type Test Certificate as mentioned above, the bid of the bidder may be considered meeting the type test criteria if the bidder furnishes an undertaking stating that valid type test certificate from a Govt. approved / Govt. recognized / NABL Accredited laboratory / ILAC Accredited laboratory shall be furnished from first lot received in Nigam store (without asking any delivery extension) along with bank guarantee with the technical bid from a Nationalized / Scheduled Bank in prescribed proforma at Schedule-III C or DD / Pay Order amounting to **Rs. 5,00,000/- (Five Lacs Only)** on non judicial stamp of Rs. 0.25% of BG or Rs 25000 whichever is lower. The initial validity of bank guarantee shall be nine months with claim period of three months in addition

i) Where a new Rajasthan based firm is participating & is technically competent.

ii) Where one or more type test(s) is/ are older than 5 years.

iii) Where Rajasthan/out side Rajasthan firm furnishes requisite type test report of higher rating material.

5. POOR RECORD OF PERFORMANCE AND DELIVERY

The bidders who have been black listed or with whom business relations have been severed in any of the State Discom shall not be considered. Severment of business relations will be done in case of following circumstances for the period and with the recovery mentioned against each.

When vendor does not accept order awarded on its accepted prices and terms and conditions and does not comply with contractual formalities	Forfeiture of EMD/cancellation of vendor registration to recover amount of EMD along with severment of business relations for three years from the date of issue of order.
When vendor complies with contractual formalities but does not commence supplies	Levy of maximum recovery on account of delay in delivery along with severment of relation for a period of two years from the date

	of issue of order or in next two bids whichever is later along with forfeiture of EMD/cancellation of vendor registration.
--	--

6. BLACK LISTING

After having given Show Cause Notice of 30 days, and having established & cogent reasons for blacklisting of the firm as given below, the firm should immediately be blacklisted for a period of 5 years indicating reasons of doing so, in the letter itself, and a copy of such blacklisting should be given to the firm, with the approval of CLPC:-

(i) There are sufficient and strong reasons to believe that the supplier or his employee has been guilty of malpractices such as manhandling/misbehavior with Government official by supplier or his partner/employee, bribery, corruption or abatement of such a offence in a position where he could corrupt Nigam's official, fraud, vitiating fair tender process including substitution of or interpolation in tender, mis-representation, pilfer-aging or unauthorized use or disposal of Nigam's material issued for specific work etc.

(ii) Where a supplier or his partner or his representative has been convicted by a court of Law for offences involving moral turpitude in relation to the business dealing or where security considerations including suspected disloyalty to the Nigam/state so warrant the blacklisting.

(iii) If the State Bureau of Investigation or any other authorized investigating agency recommends for blacklisting after completing the investigation.

Note: - 1 If a supplier after having tendered for a supply or after negotiations gives application voluntarily vitiating the fair tendering process, it shall also tantamount to malpractice.

Note:- 2 A register containing the reasons for blacklisting the supplier as also the names of all the partner of the suppliers and the allied concerns coming within the effective influence of the blacklisted supplier will be maintained.

Note: - 3 A register of black listed supplier will be maintained which will not only include suppliers enlisted with the Enlisting Authority but also black listed suppliers in Nigam.

Note :-4 A Black listed supplier (i) shall not be entitled for registration in any of the Discom (ii) shall not be awarded any supply order in future in any Discom during the notified period.(iii) his registration if any shall stand cancelled immediately and his registration security /EMD/S.D. shall stand forfeited. (iv) In case of blacklisting of the firm by any one of Discom for the cogent prescribed reason(s) as stipulated above, the same shall be applicable to all the three Discoms and as a consequence of blacklisting, all the pending orders to that firm, will be cancelled in all three (3) Discoms

with immediate effect. However in respect of completed/executed contract G.P. obligations as well as other liabilities shall be fulfilled by the supplier.

(B) Severment of Business relation:

(a) After having given Show Cause Notice of 30 days, and having established & cogent reasons for Severment of business relation as given below, the firm should immediately be severed the business relations for a period of 2 to 3 years indicating reasons of doing so, in the letter itself, and a copy of such severment should be given to the firm, with the approval of CLPC:-

(i) The supplier continuously refuses to pay Nigam dues without showing adequate reasons and where the purchasing authority is satisfied that no reasonable dispute attracting reference to Settlement Committee or Court of Law exists for the supplier's action of non-supply.

(ii) When vendor does not accept LOI/detailed purchase order awarded on its accepted prices and terms & conditions or does not comply with the contractual formalities.

(iii) When vendor/supplier who otherwise completed contractual formalities but does not commence supplies on the date of opening of technical bid of the fresh tender/completion of schedule delivery period whichever is later.

Note-1-In case supplier does not deposit outstanding dues towards Nigam, even after completion of severment period, the period of severment will continue.

2. Severment done purely/ mainly on account of non-deposition of dues against the supplier/vendor/contractor could be lifted by CLPC, if the dues are deposited prior to the expiry of such severment period.

3. Severment done by one Discom for non-supply of material and /or corresponding non-recovery of dues will not be effective in other Discoms except in respect of common purchase cases of three Discom.

4. On severment of business, the EMD/SD/vendor registration security will be forfeited.

5. The orders in execution satisfactorily will not be cancelled other than the order on which severment have been done.

(C) DEBARMENT

Reasons on which Debarment can be made:-

(i) The competent authority may debar the supplier on account of his performance or other disabilities, if it is no longer considered fit to remain under vendor registration as per his obligation under vendor registration.

(ii) If at any subsequent stage of inspection of firms after award of contract, it is found that firm does not have sufficient tech. staff or required/necessary technical equipments, the purchasing authority can debar the firm for one year or next tenders whichever is later. The debarment will be lifted only on re-inspection of firm's works; the defects noticed earlier are fully rectified to the satisfaction of Nigam.

(iii) When contract agreement executed and supplies commenced but could supply only up to 50% of ordered quantity and scheduled delivery period expired, then the firm can be debarred for one year or next tender whichever is later in that Discom only for that particular item/rating/capacity/size etc.

(iv) The suppliers who have been awarded contract for supply of material is not adhering to the periodic delivery schedule, the contract awarding authority reserve the right to terminate the contract and may debar the firm in participating in tender for a period of 2 to 3 years.

Note:-1. On debarment, the EMD/ SD/Vendor Registration security shall be forfeited.

Note:-. 2. If the firm is debarred in one Discom for any reasons then the same should not be applicable in other Discom subject to exception that in case of common Discoms purchases such debarment of a firm would be applicable to all three Discoms for that particular item and rating/capacity/size etc.

6.0 APPEALS AND APPLICATIONS:-

Appeal against the order of blacklisting, severment and debarment can be filed before BOD within a period of 3 months from the date of intimation. The letter of appeal will be addressed to the order placing authority. Who will process the case for placing the matter in B.O.D. with in a period 60 days. The BOD may reduce or waive the penalty, if sufficient reasons/supporting documents are furnished by the supplier.

GENERAL CONDITIONS : - (ALL CONDITIONS BE DULY SIGNED & SEALED)

The bidder shall clearly indicate the deviations such as 'Technical Deviation & Commercial Deviations' in the prescribed proforma only. The deviations indicated elsewhere in the bid shall not be accepted.

The bidder must clearly fill up each and every particular of guaranteed technical particulars annexed with Technical Specifications otherwise he will be responsible for Technical Non-responsiveness.

All documents required in the prescribed format are to be furnished along with the bid itself only except an attested copy of BIS license (wherever it is required), failing which the bid will be summarily rejected.

However, a copy of BIS License may be submitted by the bidder up to the official working hours of one working day prior to the schedule / notified date of opening of price bid.

Schedule-III-B

BANK GUARANTEE IN LIEU OF FURNISHING OF TYPE TEST CERTIFICATE

(On Rajasthan Non-Judicial Stamp Paper worth Rs.. 0.25% Of BG Or Rs 25000 Whichever is Lower)

To,

The Superintending Engineer(MM&C),
Jodhpur Vidyut Vitran Nigam Limited,
New Power House ,
Jodhpur.

Dear Sir,

Whereas Jodhpur Vidyut Vitran Nigam Limited, Jaipur (hereinafter called the Purchaser) has issued a tender enquiry under TN-1282for procurement of _____(name of material).

Whereas M/s _____(hereinafter called the bidder) has furnished a bid for supply of _____to the Superintending Engineer(Proc.), Jodhpur Vidyut Vitran Nigam Limited.

Whereas in accordance with the provision of the specification of the aforesaid TN_____, the bidder can deposit a bank guarantee in lieu of the requirement of furnishing the type test certificates.

Whereas M/s _____(the bidder) have requested us (Name of the Bank) to furnish the bank guarantee, in lieu of the type test certificate, for an amount equivalent to Rs. _____(in words also) only.

Under this Bank Guarantee, we (Name of the Bank) hereby undertake unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to the purchaser on his first demand without whatsoever right of objection on our part and without his first claim to the bidder, in the amount not exceeding (amount of guarantee in figures and words).

Payment pursuant to this undertaking will be demanded by the purchaser from the Bank and will be met by the Bank without question in the case in which the bidder, on receipt of the order and/or after the acceptance of this tender, makes default in furnishing the required type test certificates as to whether the occasion or ground has arisen for such demand the decision of the Superintending Engineer(MM&C.), Jodhpur Vidyut Vitran Nigam Limited shall be final.

The liability of the Bank shall not at any time exceed Rs. _____(Rupees _____).

The undertaking will be determined on but will not withstanding such determination, continue to be in force till the expiry of 3 months from that date.

No indulgence or grant of time by the purchaser to the bidder without the acknowledgement of the Bank will discharge the liabilities of the Bank under this guarantee.

The guarantee herein contained shall not be affected by any change in the constitution of the bidder.

All disputes arising under the said guarantee between the Bank and the bidder or between the bidder and the purchaser pertaining to the guarantee shall be subject to the jurisdiction of Courts only at JAIPUR in Rajasthan.

The Bank further undertake not to revoke this guarantee during its currency except with the previous consent of the Superintending Engineer(Proc.), Jodhpur Vidyut Vitran Nigam Limited,Jodhpur.

Notwithstanding anything contained herein before, the Bank's liability under this guarantee i.e. restricted to Rs._____ (Rupees_____) and the guarantee shall remain in force within three months from that date, the Bank shall be released and discharged from all liabilities thereunder. However, the validity of the bank guarantee shall be extended as and when required by the purchaser.

IN WITNESS WHEREOF THE Bank has executed these presents the day_____month____ and year_____.

Yours faithfully,

(Bankers)
EXECUTANT

Witnesses:

1.

2.

SCHEDULE – III

JODHPUR VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking

Prescribed technical specification for supply of
 (Name of Material/Equipment/Machinery/T&P etc.)

S.No.	Technical specification to which material/equipment/Machinery/T&P shall confirm	Name of IS/other standard specification to which material should confirm	Other particulars if any.
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Certified that we agree to all the aforesaid technical specification except at S.No..... for which our technical specification shall be as under:-

S.No.	Technical specification to which material/equipment/Machinery/T&P shall confirm	Name of IS/other standard specification to which material should confirm	Other particulars if any.
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(Signature)

Name & Designation
with seal of the bidder.

SCHEDULE-IV `A`**Must be filled-in by the tenderer and attach with technical bid (Part-I)**

To,
The Superintending Engineer (MM&C),
Jodhpur Vidyut Vitran Nigam Limited,
Jodhpur.

Dear Sir,

With reference to your invitation to tender against specification No.

JDVNL/SE/MM&C/TN-1282, we agree to supply the following quantity:-

S. No	Particulars of item	Tendered Quantity (In Nos.)	Qty. Offered (In Nos.)	Status of type test reports submitted.
1	2	3	4	5
1.	Common Meter Reading Instrument (CMRI)	300		

1. The offer is valid for a period of 120 days from the date of opening of this tender.
2. It is noted that the quantities as mentioned in the specification are approximate and we agree to supply any quantity as per your requirement.
3. The delivery shall strictly be in accordance with our delivery clause as given in Schedule-VIII of this specification. In case we fail to deliver the material as indicated in the clause No. 1.23, we are liable to pay recovery for delay in delivery as per clause No. 1.24 of this Schedule-II of this specification. The material shall conform to your specification No. **JDVNL/SE/MM&C/TN-1282** and as per relevant ISS in all respect.
4. We confirm that we agree to all the terms & conditions as well as the technical stipulations of your specification No. **JDVNL/SE/MM&C/TN-1282** and there are no deviations other than as specified in the Schedule VI (A&B).

Dated:
stamp

Yours faithfully,
Signature of tenderer with

SCHEDULE – V

JODHPUR VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking

Statement of guaranteed technical particulars and other performance data for supply of (Name of material) against specification no.....

S.No.	Particulars of technical & other performance data guaranteed.
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Certified that we agree to all the aforesaid technical particulars and other performance data except following:-

S.No.	Particulars of technical & other Performance data	Reasons for deviations/departure.
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(Signature)

Name & Designation
with seal of the bidder.

SCHEDULE-V-A
GUARANTEED TECHNICAL PARTICULARS COMMON METER READING INSTRUMENT AGAINST NIT No. JdVVNL/SE (MM&C)/ TN-1282

S. N.	Description	Technical Particulars offered.
A	COMMON METER READING INSTRUMENT	
1.	Name of manufacturer and address	
2.	Type /designation , Make & Model of CMRI offered	
3.	Class of accuracy of CMRI	
4.	Standards applicable CBIP report No. -111/IS: 9000 as per specifications.	
5.	Whether CMRI bears BIS certification mark	
6.	Rating and General Particulars:	
a	CMRI Model No.	
b	Control Unit	
i	Processor	
ii	Clock rate	
iii	Details of Operating System	
iv	BIOS Memory	
v	BIOS/OS on Flash / EEPROM memory?	
7	Display Unit	
a	Display	
b	Characters	
8	Key Board	
a	Type	
b	Number of Keys	
c	Key life	
9	Mode of Communication and details of Port.	
a	Nos. of Serial Port	
b	COM Port	
10	Real Time Clock	
a	Real Time	
b	Back up Battery	
c	Details of Calendar, Time Drift & Time Setting Facility.	

11	Physical Features	
a	Dimensions LxWxD	
b	Weight	
c	Cabinet	
d	Material used for meter housing	
12	Environmental Specifications	
a	Operating Temperature Range	
b	Storage Temperature Range	
c	Relative Humidity	
13	Power Supply	
a	Main Battery	
b	CMRI has auto-power save facility?	
14	Charger / Fast Charger (Typical Charging Time.	
15	Type of battery primary/rechargeable and is it possible to charge battery without removing from unit?	
16	Whether CMRI has provision to check the memory space available before reading meter?	
17	Details of communication protocols complied by CMRI.	
18	Whether CMRI is capable to provide power supply to optical sensor used for meter reading application?	
19	Whether display has graphics or wiring verification software which give values of voltage, current and phase angles. Capable to display type of error enabling for suitable corrections.	
20	Minimum number of meters which can be read at a time with/without load survey as per specifications.	
21	Whether meter serial number can be identified through CMRI.	
22	Details of communication cables and associated softwares supplies with CMRI.	
23	Details of Type test reports enclosed as per relevant standards.	

SCHEDULE – VI (A)



JODHPUR VIDYUT VITRAN NIGAM LIMITED

A Govt. of Rajasthan Undertaking

DEPARTURE/DEVIATION FROM TECHNICAL SPECIFICATION

The bidder shall state under this schedule the departure from the Purchaser's specification in respect of technical is as under:-

S.No.	Main Deviations from Technical Specification.
-------	---

Certified that we agree to all the technical specification of the NIT except for the deviation to the extent indicated above.

(Signature)
Name & Designation
with seal of the bidder.

SCHEDULE – VI (B)



JODHPUR VIDYUT VITRAN NIGAM LIMITED

A Govt. of Rajasthan Undertaking

**DEPARTURE FROM COMMERCIAL TERMS & CONDITIONS OF THE
SPECIFICATION**

The bidder shall state under this schedule the departure from the Purchaser's specification in respect of Commercial terms & conditions:-

S.No.	Main Deviations from Specification.
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Certified that we agree to all the commercial terms & conditions as laid down in General Conditions of Contract to the specification except for the deviation to the extent indicated above.

(Signature)

Name & Designation
with seal of the bidder.

SCHEDULE – VII**JODHPUR VIDYUT VITRAN NIGAM LIMITED****A Govt. of Rajasthan Undertaking****LIST OF PAST SUPPLIES**

The bidder shall state under this schedule whether material and equipments, similar to those offered in the tender have been previously supplied by him. A list shall be given of such orders executed by him together with information regarding the names of purchasing organizations, quantities supplied and when the supplies were affected. This list should be in form given below:-

S.No.	Detailed particulars of items supplied	Qty in Nos.	Order No. & Date	Name & details of purchasing authority	Date of Completion
1	2	3	4	5	6

If executed partially to be mentioned	whether still to be executed	Delivery stipulated in order	Remarks (Qty. in M.T.)
7	8	9	10

Note: Separate schedules are to be furnished by the bidder for past supply to the JdVVNL, Jodhpur other State Electricity Boards and other Departments /Organizations.

(Signature)
Name & Designation
with seal of the bidder.

SCHEDULE-VIIA

PROFORMA FOR C.A. CERTIFICATE FOR QUANTITY VERIFICATION
TN No.1282

TO WHOM SO EVER IT MAY CONCERN

This is to certify that M/s. _____
 (complete with address) have manufactured and supplied the goods / equipments / material during the following financial year(s) to the Electrical utilities / Government Department / Discoms / Organization as detailed out below :

S. No.	Financial Year in which material supplied	Detailed particulars of item(s) supplied	Name & particulars of Purchasing Authority	Order No. & date against which item(s) supplied.	Unit	Ordered		Actual supplied upto		Remarks
						Qty.	Value (Rs.)	Qty.	Value (Rs.)	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.

Signature
 Name & Designation
 With Seal of the Tenderer
 Date _____
 Place _____

The above particulars are true and correct based on explanations, records and books of accounts produced before us. Further the above certificate has been issued on the request of the company.

CA Firm(_____)

SCHEDULE – VIII

JODHPUR VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking

DELIVERY SCHEDULEPART-A

The delivery schedule of the material by the Purchase Officer is as mentioned hereunder:-

S.No.	Particulars of Material	Commencement period per Month.	Rate of supply per Month	Period for completion of delivery of entire material
-------	-------------------------	--------------------------------	--------------------------	--

The supply shall commence within 30 days from the date of receipt of PO and shall be completed in one month.

PART-B

In case bidder deviates from the delivery schedule mentioned by the purchaser in Part-A then the delivery schedule shall be indicated/mentioned by the bidder as under:-

S.No.	Particulars of Material	Commencement period per Month.	Rate of supply per Month	Period for completion of delivery of entire material
-------	-------------------------	--------------------------------	--------------------------	--

- Note:**
1. During the commencement period the process of model assembly and submission of B.O.M. for approval shall be got completed.
 2. During the commencement period the contractual formalities shall be got completed.

(Signature)
 Name & Designation
 with seal of the bidder

SCHEDULE – IX



JODHPUR VIDYUT VITRAN NIGAM LIMITED
A Govt. of Rajasthan Undertaking

List of Equipments and Technical Hands Available with the Firm
(To be filled in by the bidders & enclosed with the bid)

Manufacturers and / or their authorized agents who are quoting against this bid are requested to furnish the following information along-with the bid. The Purchaser will have the discretion to ignore the bid without the under noted particulars and/or ignore the bid particulars.

1. Name and Address of Manufacturer.
2. Place where works exist.
3. Details of machinery particularly with B.H.P. of each item installed.
4. Details of staff employed in the works.
5. Date when started the manufacturing of item under reference.
6. List of items manufactured.
7. Literature and drawings of items manufactured showing their description, size, design and other important technical particulars.
8. Details of order so far, executed along with the names of organization to whom supplied.
9. Manufacturing capacity.
10. Is the workshop open for inspection by the representative of the board, if required?
11. Statement of financial resources and Banking Reference along with Balance-Sheet for previous two years.
12. Testing facilities available for the manufactured articles in the testing laboratory of works.
13. Whether the Firm is a small/medium/large scale industry.
14. Registration No. with :-
 - i. Small Scale, National/State.
 - ii. DGTD
 - iii. State Industries Department.

(Signature)

Name & Designation
with seal of the bidder.