

TN-55

INSTALL AND OPERATE FEEDER MONITORING SYSTEM & AMR SYSTEM ON SERVICE MODEL

Service Model:

- (i) Orientation of system is based upon the actual output of service and not on the Infra deployment.**
- (ii) The payment shall be made on the basis of actual output services on monthly basis.**
- (iii) No upfront payment except mobilization advance towards**

Superintending Engineer (IT)

JAIPUR VIDYUT VITRAN NIGAM LTD |
OLD POWER HOUSE BANIPARK, JAIPUR-302006.
WWW.JAIPURDISCOM.COM

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Tender Notice

Reference No: TN-55

Jaipur Vidyut Vitran Nigam Ltd. [JVVNL] invites bids from competent agency for work OF "INSTALL AND OPERATE FEEDER MONITORING SYSTEM & AMR SYSTEM ON SERVICE MODEL" in following manner

1. Feeder Monitoring system for at 33 KV/11KV sub stations spread across Jaipur DISCOM
2. Automated Meter Reading System at following locations:-
 - i) Boundary Meters across Jaipur Discom
 - ii) Distribution Transformers in Urban areas
 - iii) Consumers of different categories having load above 15 HP in SIP, 18.65 KW in NDS, ML, DS and agriculture connections or any other consumers

The contract period shall be initially for seven years. The contract period may further be extended upto 2 years as mutually agreed.

Mode of Bid Submission	Online through eProcurement/eTendering system at http://eproc.rajasthan.gov.in
Procuring Authority	Superintending Engineer (IT) Jaipur Vidyut Vitran Nigam Ltd. Old Power House, Banipark, JAIPUR-302006.
Estimated cost of Project (Approx.)	Rs. 73.05 Crs
Submission of Banker's Cheque/ Demand Draft for Tender Fee , with AO(TW) in favour of AO(TW), JVVNL, Jaipur (non-refundable)	Rs. 5000/- (Rupees five thousand Only)
Submission Demand Draft for e-Tender Processing Fee with AO(TW) in favour of M.D, RISL payable at Jaipur (non-refundable)	Rs.1000/- (Rupees One thousand only)
Submission of Earnest Money Deposit (EMD) with AO(TW) in favour of AO(TW), JVVNL, Jaipur (20% in form of Banker's Cheque/ Demand Draft and remaining 80% in the form of Bank Guarantee)	Rs. 1.46 Crs
Publishing Date/Time	1.06.16
Document Download / Sale End Date/Time	1.06.16
Bid submission Last Date/ Time	30.06.16 upto 2.00 pm
Submission of Banker's Cheque/ Demand Draft for Tender Fee, EMD, and Processing Fee	upto 29.06.16 UPTO 3.00pm
Date & Time of Opening of Technical Bids	30.06.16 at 3.00PM
Date & Time of Opening of Financial Bids	Will be intimated later to technically qualified and responsive bidders as per bidding document

Websites for downloading Tender Document, Corrigendum's, Addendums etc.	www.Jaipurdiscom.com , www.eproc.rajasthan.gov.in
Bid & EMD Validity	120 days from date of opening of part-A bid or 90 days from the date of opening of part-B bid whichever is later

The prospective bidder should have the necessary competence, adequate financial standing, sufficient experience, expertise and adequate experience as per Pre Qualification Requirement. The other qualifying requirements are detailed in the specification.

The work involves real time basis automated collection of various parameters from 33/11KV Substation's feeder meters, and breakers and Automated Meter Reading of Boundary Meters, Distribution Transformers Meters & Consumer Meters information aggregation at central web server and information dissemination through web application and web portal, Integration with RAPDRP system on Industry Standard practice.

NOTE:

1. The tender/bid shall only be submitted through online tendering system of www.eproc.rajasthan.gov.in.
2. Bidders who wish to participate in this tender will have to register on <https://www.eproc.rajasthan.gov.in>. To participate in online tenders, Bidders will have to procure Digital Signature Certificate (Type – II or Type – III) as per Information Technology Act-2000 using which they can sign their electronic bids. Bidders can procure the same from any CCA approved certifying agency i.e TCS, Safecrypt, Ncode etc. or they may contact e-Procurement Cell, Department of IT & C, Government of Rajasthan for future assistance. Bidders who already have a valid Digital Certificate need not to procure a new Digital Certificate.

Contact No. 0141 – 4022688 (Help desk of RISL - 10.00 AM to 6.00 PM on all working days)

E-mail: eproc@rajasthan.gov.in

Address: e-Procurement Cell, RISL, Yojana Bhawan, Tilak Marg, C-Scheme, Jaipur.

3. Bidders should go through the website <https://www.eproc.rajasthan.gov.in> should refer to the website and go through the link “Help For Contractors”, “Information About DSC”, “FAQ” and “Bidders Manual Kit” and **Section-I** to know the process for submitting the electronic bids at the website.
4. The ‘Instructions to bidders’ and other terms and conditions of this tender pertaining to the bidding process generally follow the guidelines of e-tendering system of the government of Rajasthan, available at URL <https://www.eproc.rajasthan.gov.in>. However, wherever there is any anomaly between the conditions referred to in this document and the GoR e-tendering system, the latter shall be final.
5. The complete bid document has been published on the websites, www.jaipurdiscom.com and <https://www.eproc.rajasthan.gov.in> for the purpose of downloading.
6. The downloaded bid document shall be considered valid for participation in the bid process subject to submission of required Bid document fee of Rs. 5000/- only (Rupees Five Thousand only) in Demand Draft with AO(TW) in favour of AO(TW), JVVNL, Jaipur payable at Jaipur and e-Tender Processing Fee: Rs. 1000/- (Rupees One Thousand only) in Demand Draft in favour of M.D, RISL payable at Jaipur. A copy of the bid document fee receipt must be enclosed along with the Technical bid/ proposal failing which the bid will be summarily rejected.
7. All the communication/ correspondence including the bid document (Technical and Financial Bid) should be signed digitally and stamped on each page by the designated authorized representative of the bidder.
8. No contractual obligation whatsoever shall arise from the RFP/ bidding process unless and until a formal contract is signed and executed between the tendering authority and the successful bidder(s).
9. JVVNL disclaims any factual/ or any other errors in this document (the onus is purely on the individual bidders to verify such information) and the information provided herein are intended only to help the bidders to prepare a logical bid-proposal.

10. Bids will be considered only in the prescribed form/ document. Bids not submitted in the prescribed format will be summarily rejected and EMD submitted along with the bids shall be forfeited. Also, bidders should refrain from providing the information which is not relevant.
11. Copies of various documents to be enclosed along with the bid-proposals must be legible and be self-attested by the authorized signatory with official seal. Claims made by bidder related to the project experience and other requirements shall be considered only when appropriate supporting documents are provided.
12. All the communication/correspondence including the bid document (Technical and Financial Bid) must be signed and stamped on each page by the designated authorized representative of the bidder failing which the bid will be summarily rejected.
13. The Bids can be submitted up to date and time given as specified in the NIT.
14. The complete bidding process is defined in the RFP document.
15. In case, a bidder imposes conditions which are in addition or at variance or in conflict with the terms and conditions as specified in this RFP document, all such bid-proposals will be summarily rejected and EMD submitted along with the bids will be forfeited.
16. Tendering Authority reserves the complete right to accept or reject in part or full any or all the offers without assigning any reasons whatsoever. No further discussion/ interaction will be held with the bidders whose bids have been disqualified/ rejected by the purchaser/ tendering authority.
17. In case, a dispute arises with regard to interpretation/ omission/ error in the RFP document, bid submitted, other documents; the decision of SE (IT), JVVNL, JAIPUR will be final and binding upon the bidders.
18. Interested bidders may obtain further information from the office of **The Superintending Engineer (IT), Jaipur Vidyut Vitran Nigam Ltd, Old Power House Banipark, Jaipur** on any working day between From 2.06.16 from 10:00 AM to 6:00 PM.

Superintending Engineer (IT)

Jaipur Vidyut Vitran Nigam Ltd.

Old Power House, Banipark, JAIPUR-302006.

Introduction

Jaipur Vidyut Vitran Nigam Limited (JVVNL/Jaipur DISCOM) is engaged in distribution and supply of electricity in 12 districts of Rajasthan, namely Jaipur, Dausa, Alwar, Bharatpur, Dholpur, Kota, Bundi, Baran, Jhalawar, Sawai Madhopur, Tonk and Karauli.

There are number of 33 / 11 KV substations spread across JVVNL from where 5-8 Nos of 11KV feeders are emanating for supply electricity to various areas ,each feeder is installed with HTTVM meters of different makes. These meters have majorly optical port and some have 485, RS-232/RJ11 communication ports apart from optical ports. Some meters have DLMS protocol and most of meters are on proprietary protocols.

Also JVVNL intends to have Automated Meter Reading System for the meters installed at Boundary of administrative and revenue areas of different entities, Distribution Transformers And various category of high value consumers .

Objective

To develop a Self sustained independent web based system for automated System for:-

1. Feeder Monitoring system for 33/11 KV sub stations spread across Jaipur DISCOM for acquisition of various information as described in the specifications
2. Automated Meter Reading System at following locations for acquisition of billing & other parameters from the meters, as per specifications:-
 - iv) Boundary Meters across Jaipur Discom
 - v) Distribution Transformers in Urban areas
 - vi) Consumers of different categories

The scope covers the monitoring of all sub-station feeders and reading the Meters with the help of Installation of DCU and the Automated Meter Reading on Boundary Meters across Discoms, Distribution Transformer in Urban Area and High Value Consumers with the help of installation of Modems.

The system shall be meant for Data Logging of various essential parameters of all the Incoming (33KV & 11KV) & Outgoing 11KV feeders from 33 KV sub stations and meter reading & other features available in the meter for the boundary meters , Distribution Transformers Meters, & consumers meters installed in the field . This system shall be useful to make the information available online for various stake holders including public portal, on near real time basis for power supply monitoring, alerts, meter data analysis, information dissemination, consumption of consumers meters and energy audit.

The System would help JVVNL for monitoring power supply, Power consumption ,proper planning, decision support, and automated billing of consumers and taking corrective actions on the business activities in addition to transparently disseminating the power supply status.

The System would further facilitate consolidation of various parameters downloaded from the meters installed on the feeders,, breakers and consumers meters into a common database thus enabling generation of various holistic MIS reports for analysis and actions.

Broad Scope of Work

- 1.1 The bidder shall host the entire system on a cloud environment or at a tier 4 data centre to be communicated to Jaipur DISCOM. One backup system shall be installed at Discom Headquarter.
- 1.2 The system shall be scalable to accommodate the information of feeders and other meters as per schedule of requirement. (Distribution Transformers- Consumers)
- 1.3 Supply, install, operate and maintain the required system at the 33/11 KV sub stations , Boundary meters , Distribution Transformers & Consumer premises for automated meter data, online supply status and transmit the same on near real-time basis to the central servers.(**In the scope the supply of meters & metering equipment are not included**)
- 1.4 Provide, install, operate and maintain the required GPRS/ GSM connectivity network at the slave location and suitable connectivity at the central server level.
- 1.5 Design, develop, install and implement the required web based software solution for data acquisition, data aggregation, data storage in common format, data dissemination, data display on responsive website, data analysis and depiction in form of dashboards, graphs and MIS reports etc., provision for automated SMS alerts and email.
- 1.6 The web based software solution shall be built on service oriented architecture for data exchange between various other existing and future IT systems of the DISCOM.
- 1.7 Supply, install, operate and maintain the required IT infrastructure at DISCOM level as backup system. The required hardware and software for a secure, reliable and high available system shall be designed and deployed. The system shall be accessible over internet irrespective of type of connectivity.
- 1.8 Provide the required manpower for operation, maintenance and Updating of the system implemented.
- 1.9 Impart the required training to DISCOM officers for operation and usage of the system.
- 1.10 Transfer the infrastructure (as detailed in specification) supplied and installed along with the required licences to JVVNL at the end of the contract period.

Pre-Qualification Requirements

The minimum requirement with respect to experience, capability and other particulars of the Bidder to be considered eligible for participation in the bid for the proposed work. The BIDDER shall become eligible to bid on satisfying the following “Pre-Qualification Requirements” and on production of the required documentary evidences along with the Tender.

S.No.	Criteria	Supporting Documents Required
4.1	Proposals shall be submitted by an individual Bidder or through Joint Venture.	Self-Declaration
4.2	The bidder (Single) / Lead Bidder (JV) should be an Information Technology Services Company / OEM (Modem/DCU/Meter/CTPT) / Automation Company registered in India as per Indian Companies ACT and should have been providing services to power utilities / Transmission companies / Generation companies / E-Governance in India for the past 5 years	Certificate of Incorporation, MOU, AOA and other relevant certificate to substantiate the same.
4.3	The bidder (Single) / Lead bidder (JV) shall have experience of providing System Integration Services involving supply, deployment of Hardware, Software Development & Manpower to power utilities / Transmission companies / Generation companies / E-Governance in India in any one of services like Meter Data Downloading & generating Reports, Meter Data Management, Meter Data Acquisition in last 5 years. Experience of bidder as Consortium Member or sub contract Works shall not be considered	Proof of Work Orders & Performance Certificates to be submitted.
4.4	The Lead bidder should be ISO 9001:2008 (Quality Management System)	Valid Certificates should be submitted.
4.5	The bidder (Single) / Lead bidder (JV) should have a total turnover of Rs 30 Crores during the last three financial years ending on 31-Mar-2016 (i.e. for the 2013-14 & 2014-15 & FY 15-16) . In case of consortium / Joint Venture, the lead bidder should meet minimum 75% of the Turnover requirement.	Copy of the audited statement of accounts (PL Account & Balance Sheet) duly certified by the Chartered Accountant to be submitted as a proof of turnover.
4.6	The bidder should not have been black listed by any power utility in India.	Self-Declaration

4.7	<p>The bidder should have a minimum net worth of at least 7 Crore during financial year ending on 31-Mar-2015.</p> <p>In case of consortium / Joint Venture, the lead bidder should meet minimum 75% of the net worth requirement.</p>	<p>Copy of the audited statement of accounts (PL Account & Balance Sheet) duly certified by the Chartered Accountant to be submitted as a proof of net worth.</p>
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NOTE:-

1. In case of non-furnishing of requisite document along with the bid the bid will be considered as non-responsive and bid will be summarily rejected.
2. **Joint Venture / Consortium mean One Lead Partner and One other partner.**

SECTION –I INSTRUCTION TO BIDDER

1. GENERAL INSTRUCTIONS

- 1.1. The Jaipur Vidyut Vitran Nigam Ltd or any authority designated hereinafter called 'OWNER' will receive bids in respect of services as set forth in the accompanying specification.
- 1.2. All bids shall be prepared and submitted in accordance with these instructions.
- 1.3. The Bidder, in his own interest is requested to read very carefully these instructions and the terms and conditions as incorporated in General Conditions of Contract and Technical specification before filling the Bid proposal form.
- 1.4. If the bidder has any doubt as to the meaning of this specification or any portion thereof, he shall before submitting the Bid, may refer the same to the Superintending Engineer(IT), Jaipur Vidyut Vitran Nigam Limited, Jaipur in writing well in time before the specified date of opening of Bids so that such doubts may be clarified.
- 1.5. Submission of the Bid shall be deemed to be the conclusive proof of the fact that the Bidder has acquainted himself and is in agreement with all the instructions, terms and conditions governing the specification, unless otherwise specifically indicated/ commented by him in his Bid.
- 1.6. Bids submitted after the time and date fixed for receipt of bids as set out in the invitation to Bid shall be rejected and returned to the bidders.
- 1.7. The works referred herein shall cover the entire scope of the proposal which include commissioning and erection of equipment including the successful completion of performance and guarantee tests which the owner desires to get executed.

2. INTRODUCTION

Jaipur Vidyut Vitran Nigam Limited (JVVNL/Jaipur DISCOM) is engaged in distribution and supply of electricity in 12 districts of Rajasthan, namely Jaipur, Dausa, Alwar, Bharatpur, Dholpur, Kota, Bundi, Baran, Jhalawar, Sawai Madhopur, Tonk and Karauli.

There are number of 33 KV substations spread across JVVNL from where 5-8, 11KV feeders are emanating for supply electricity to various areas each feeder is installed with meters of different makes and are HTTVM type. These meters have majorly optical port and some have 485, RS-232/RJ11 communication ports apart from optical ports. Some meters have DLMS protocol and most of meters are on proprietary protocols.

Also JVVNL intends to have Automated Meter Reading System for the meters installed at Boundary of administrative and revenue areas of different entities, Distribution Transformers And various category of high value consumers .

3. FIELD CONDITIONS

- 3.1 The bidder may in its own interest, before submitting the bid, inspect and examine the area involved and satisfy it regarding the existing system.

- 3.2 For ascertaining the existing Feeder Metering condition the Agency may contact the Superintendent Engineer (IT/O&M/M&P) of Jaipur DISCOM.
- 3.3 No claim for change in the bid or terms & conditions of the contract shall be entertained on the ground that the conditions are different than what were contemplated.

4. SUCCESSFUL IMPLEMENTATION AND GOOD PERFORMANCE

Any work if specifically not mentioned but reasonably implied for the successful implementation and good performance of the proposed work is deemed to be included and is to be executed within the ordered price.

5. PREPARATION OF BIDDING DOCUMENT

5.1. EARNEST MONEY DEPOSIT (EMD):

- 5.4.1 The tenderer shall furnish Earnest Money of Rs. 1.46 Crs Only (Rupees One Crore Forty Six Lacs only) 20% in the form of Banker Cheque / DD in the name of Accounts Officer (TW), JVVNL Ltd., Jaipur and 80% in the form of Bank Guarantee shall be payable as per prescribed format.
- 5.4.2. The tenderers shall deposit the EMD in above said format to the Accounts Officer(TW), JVVNL, Jaipur up to stipulated date & time, and obtain a receipt, thereof Accounts Officer (TW) will be the custodian of the EMD.
- 5.4.3. Any tender not accompanied by a copy of the receipt for depositing earnest money (EMD) shall be rejected and the tender will not be opened.
- 5.4.4. In case of unsuccessful tenderers, the Earnest money will be refundable on production of the original receipt within a fortnight period after finalization of the tender. In case of successful tenderers the Earnest Money will be taken into account in arriving at the amount of the Security Deposit if vendor desire to furnish cash security deposit, however the security deposit if furnished, through bank guarantee the EMD will be released after acceptance of Security Bank Guarantee.
- 5.4.5. Request for adjustments/proposals for acceptance of Earnest Money deposits, if any, already lying with the Nigam in connection with some other bids/orders shall not be entertained.
- 5.4.6. No interest shall be payable on such deposits.
- 5.4.7. The JVVNL reserves the right to forfeit Earnest Money deposit or a part thereof in circumstance, which according to him indicate that the bidder is not earnest in accepting/executing any order placed under the specification

5.1. TENDER SPECIFICATION COST & TENDER PROCESSING FEE

The bidders are permitted to download the bid document from websites <https://www.eproc.rajasthan.gov.in>, www.jaipurdiscom.com but must pay the cost of tender/bidding document Rs. 5,000/- (Rs. Five thousand only) [non-refundable] in Bank Draft payable to Accounts Officer (TW), JVVNL, Jaipur and e-tender processing fee amounting to Rs. 1000/- (Rs. One thousand only) by DD in favour of M.D, RISL payable at Jaipur up to stipulated date & time in the office of Accounts Officer (TW), Jaipur and obtain acknowledgement thereof. The processing fee will be sent to RISL by AO (TW).

6. CLARIFICATIONS AND AMENDMENTS & DEVIATION FROM BIDDING DOCUMENT

6.1. CLARIFICATIONS TO THE BID DOCUMENT

- 6.1.1. If the prospective bidder has any doubts as to the meaning of any portion of the bidding document, then he is allowed to refer the same to the tendering authority and get clarifications. He may do so by contacting the tendering authority in writing at the tendering authority's address indicated in the NIT.
- 6.1.2. The Tendering authority shall forward copies of its response to all Bidders who have acquired the Bidding Document directly from it and shall also place it on the website of JVVNL, including a description of the inquiry but without identifying its source.
- 6.1.3. Should the Tendering authority deem it necessary to amend the Bidding Document as a result of a clarification or otherwise, it shall do so by issuing a revised bidding document and/ or Addendum/ Corrigendum. If need be, the deadline for submission of Bids may also be extended in order to give reasonable time to the prospective Bidders to take into account the amendment.

6.2. AMENDMENT OF BIDDING DOCUMENT

- 6.2.1. At any time prior to the deadline for submission of the Bids, the tendering authority may amend the Bidding document by issuing Corrigendum/Addendum.
- 6.2.2. Any Corrigendum/Addendum issued shall be a part of the Bidding document and shall be communicated through web portal in writing to all, who have purchased the Bidding document.
- 6.2.3. To give prospective Bidders reasonable time in which to take a Corrigendum/Addendum into account in preparing their Bids, the tendering authority may, at its discretion, extend the deadline for the submission of the Bids.
- 6.2.4. Any change in date of submission and opening of bids would be published on the websites mentioned in the NIT.

6.3. DEVIATION FROM BID DOCUMENTS

The bid offer must include a separate statement indicating all deviations from the bid documents as per format enclosed at **Schedule-1**. All such deviations shall be clearly mentioned in **Schedule of Deviation**. JVVNL reserves the right to accept the deviation with financial implication or reject out rightly. Unless the deviations from the bid documents are specifically mentioned, it will be understood and agreed that the proposal is based on strict conformity to JVVNL's specifications in all respect and it will be assumed that all terms & conditions are acceptable to the Bidder.

7. SUBMISSION AND OPENING OF BIDS

7.1. COST OF BIDDING

The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the tendering authority shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

7.2. LANGUAGE OF BIDS

The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the tendering authority, shall be written only in English Language. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English/ Hindi language, in which case, for purposes of interpretation of the Bid, such translation shall govern.

7.3. BIDS ARE TO BE SUBMITTED IN TWO PARTS

7.3.1. **Part- A:** will contain (i) Tender Cost (ii) Tender processing fee (iii) EMD (iv) Supporting documents to ascertain the eligibility / qualification as per the PQR requirements of the tender (v) Technical offer comprising details & design of the proposed system(s) to meet out the work requirement together with its capabilities.

7.3.2. **Part- B:** will contain the financial offer for carrying out the scope of work defined for this project

7.4. SUBMISSION OF PROPOSALS

7.4.1. Bidder shall submit their bid in electronic format, digitally signed and stamped on each page by a responsible and authorized person. Bidder shall procure Digital Signature Certificate (DSC) as per IT act - 2000.

7.4.2. **Physical submission of bids is not allowed.** But the bidder is required to submit original technical physical bid in hardcopy as well to the Superintending Engineer (IT), Jaipur Vidyut Vitran Nigam Ltd, Old Power House Banipark, Jaipur before opening of price bid.

7.5. FILLING OF BIDS

7.5.1. Tenders shall be submitted online in the electronic format attached here to and all blanks in the tender and the schedule to the specification shall be duly filled in. The completed forms, schedule(s) shall be considered as part of the contract documents in the case of successful tenderer(s).

7.5.2. No alteration should be made to the format of the tender specification and schedules. The tenderer must comply entirely with specification.

7.5.3. The tender and all accompanying documents shall be in Hindi/English Language and shall be signed digitally by a responsible and authorized person. The name, designation and authority of the signatory shall be stated in the tender.

7.5.4. Tender must be submitted online after signing digitally.

7.5.5. All additions, alterations and over-writing in the bid must be clearly signed by the signatory of the bidder otherwise bid will be summarily rejected.

- 7.5.6. The bidder must quote the prices strictly in the manner as indicated herein, failing which bid is liable for rejection. The rate/prices shall be entered in words as well as in figures. These must not contain any additions, alterations, over-writing, cuttings or corrections and any other marking which leave any room for doubt.
- 7.5.7. The Purchase Authority will not be responsible to accept any cost involved in the preparation or submission of bids.
- 7.5.8. All bids and accompanying documents shall be addressed to the Jaipur Vidyut Vitran Nigam Limited.
- 7.5.9. The tenders/quotations given in the form other than prescribed form will not be considered.
- 7.5.10. Only one representative, on submission of valid authorization of the signatory of the bid, will be allowed to be present during the opening of the bid.
- 7.5.11. The bidder shall clearly indicate the deviation such as Technical Deviation & Commercial Deviation in the prescribed format only. The deviation indicated elsewhere in the bid shall not be accepted.
- 7.5.12. The tender offer shall be submitted in time specified on <https://www.eproc.rajasthan.gov.in> in electronic format in the following manner:
 - 7.5.12.1. **COVER – I** Fee(to be filed in pdf format)
 - i. Proof of depositing EMD in cash & furnishing BG in the prescribed form as defined hereunder at Clause “Earnest Money Deposit (EMD)” i.e the receipt issued by the Accounts Officer (TW), Jaipur on account of depositing .
 - ii. Proof of submitting RISL Processing Fee i.e the acknowledgement issued by the Accounts Officer (TW), Jaipur on account of depositing the processing fee of RISL through DD in favour of M.D, RISL payable at Jaipur.
 - iii. Proof of submitting Tender document cost i.e the acknowledgement issued by the Accounts Officer (TW), Jaipur on account of depositing tender document cost of through DD in favour of Accounts Officer(TW), Jaipur DISCOM payable at Jaipur.
 - 7.5.12.2. **COVER – II** Techno- Commercial Bid (to be filed in pdf format)

In this part of bid, tenderer will have to furnish Technical Compliance For Executing this Project as per Annexure 9 (Part-A) and confirmation of commercial terms and conditions of GCC (General Conditions of Contract) and its addendum/corrigendum, if any, along with details required in various/schedules “EXCEPT THE PRICE SCHEDULE” so that the purchaser will be able to examine whether the offer submitted is technically acceptable and also confirm to our commercial terms and conditions or not.
 - 7.5.12.3. **COVER – III** Financial/Price Bid/BOQ (to be filed in xls format).

The price bid is submitted in excel file of BoQ. The price bid will be opened only after being satisfied with Technical and Commercial Bid as per qualifying requirement stipulated in the Specification and bid of such qualified bidders will

only be opened. The date of opening of such price Bids will be intimated in due course of time.

7.6 DOCUMENTS COMPRISING THE BID

- 7.6.1. The tender shall be accompanied with the schedules, documents mentioned in the specification.
- 7.6.2. The tender which is not accompanied by any or all mentioned schedules, documents or is accompanied by incomplete Schedules/ schedules is liable for rejection.
- 7.6.3. The purchaser may advise any bidder to furnish the documents in original or copy duly attested by Notary as the case may be for verification, in physical form on short notice of seven days.
- 7.6.4 Techno- Commercial Bid as detailed below:
 - i. The bidder needs to furnish full details about organization's competence, financial strength, details of experience in accordance with the QR specified in this document. The bidder must submit its proposal along with the following documents.
 - ii. Proof of depositing EMD in the prescribed form as defined hereunder at Clause "Earnest Money Deposit (EMD)" i.e the receipt issued by the Accounts Officer (TW), Jaipur DISCOM, Jaipur on account of depositing EMD in favour of Accounts Officer (TW), Jaipur DISCOM, Jaipur.
 - iii. Proof of submitting tender processing fee i.e the acknowledgement issued by the Accounts Officer (TW), Jaipur DISCOM, Jaipur on account of depositing the processing fee of RISL through DD in favour of M.D, RISL payable at Jaipur.
 - iv. Proof of submitting Tender document cost i.e the acknowledgement issued by the Accounts Officer (TW), Jaipur DISCOM, Jaipur on account of depositing tender document cost through DD in favour of Accounts Officer(TW) payable at Jaipur.
 - v. Cover letter on company's letter head
 - vi. All Annexure
 - vii. All Schedules
 - viii. Power of Attorney/Board Resolution in favor of signatory of the bid
 - ix. Original consortium agreement between the bidder and his collaborators or associates, if any;
 - x. Supporting documents to ascertain the eligibility/ qualification as per the Qualification Requirements (QR) of the tender as per details at Section III Part -I.
 - xi. Other details as called for in the tender specification document or which the bidder may like to highlight
 - xii. Check lists as given in this document.
 - xiii. Techno-commercial proposal shall be furnish by the bidder comprising details & design of the proposed system(s) to meet out the work requirement, together with its capabilities along with commercial terms and conditions.
 - xiv. In this part the bidder will submit full relevant documents substantiating the details provided in the annexure and schedules

- xv. The bidder will substantiate details of the company in the form of Certificate of Incorporation, MoU, registration certificate or any other relevant document as the case may be
- xvi. Controlling offices that would be established to undertake the proposed work
- xvii. Project organization structure
- xviii. Names of the key resources that would be deployed along with their proposed position
- xix. CVs of the key proposed resources as mentioned in point (xviii)
- xx. Audited balance sheet and P&L statement required to ascertain the qualification of turn over
- xxi. Copies of work order and performance report for the projects undertaken/ in hand
- xxii. Approach and methodology to execute the project
- xxiii. Details of guaranteed and other reports.
- xxiv. Project implementation plan (in form of a Gantt Chart)
- xxv. Details of the system proposed; a write up on the system that would be installed / developed to meet the requirements as specified in scope of work
- xxvi. Details of equipments, data sheets/ compliances sheets/ and hardware that would be deployed along with bill of material indicating the number and make and technical specifications
- xxvii. Details of connectivity for the proposed network
- xxviii. Schematic network diagram showing (sample) locations and components
- xxix. Schematic flow of information
- xxx. Schematic LAN and connectivity diagram
- xxxi. Details of hardware for creation secured IT infrastructure

7.6.5 **COVER – III for Financial/Price Bid/BOQ:** The financial proposal in excel file of BOQ

7.7 ALTERNATIVE BIDS

Alternative bids shall not be considered at all.

7.8 BID PRICES

- 7.8.1 All the prices should be quoted only in Indian Rupees (INR) Currency.
- 7.8.2 Prices/ Rates shall be written both in words and figures. There should not be errors and/ or over-writings. Corrections/ alterations, if any, should be made clearly and initialed with dates by the authorized signatory.
- 7.8.3 The prices quoted in BOQ.xls should be inclusive of all service tax and other government levies as applicable but have to explicitly specify applicable rate of taxes in financial offer declaration (MS Word Format). These rates of applicable taxes and Govt. Levies shall be revised as and when updated.
- 7.8.4 The quantity of each component under scope mentioned in DISCOM is on average basis and may increase or decrease, however the payment shall be made as per the actual work made during the month.
- 7.8.5 The bidder will furnish the break-up of the quoted price in financial offer, indicating rate and type of each tax clearly, as per the prevailing rate on the bid date. Any statutory variation and imposing new tax by government subsequently during the

currency of contract shall be on JVVNL account of fee subject to submission of documentary proof of new taxes/ statutory variation.

7.8.6 Duties and taxes: Jaipur Vidyut Vitran Nigam Limited is registered under Rajasthan VAT and Central Sales Tax Act Reg No. 08372105543 and is entitled to concessional rate of Central/State sales tax as per rules in force.

- i. The work contract tax, Service Tax, VAT/CST, excise duty, local taxes, entry tax as applicable/ leviable on the goods procured from outside Rajasthan, levies, and other liabilities of Government, if leviable in respect of the transaction between the owner and the contractor under the contract on the date of opening of bids (commercial) shall be treated as included in the bid price and no additional payment on this account shall be paid by the purchaser.
- ii. If Applicable , any income tax, surcharge on income tax and other corporate taxes including work contract tax, service tax and entry tax as applicable/ leviable on the goods procured from outside Rajasthan as attracted under the law, shall be deducted at source, as per the prevailing Govt. rules by payment making authority from each bill. Necessary TDS certificate shall be issued by payment making authority.
- iii. Jaipur Vidyut Vitran Nigam Limited is a registered under Rajasthan VAT and Central Sales tax Act and is entitled to concessional rate of Central Sales Tax / State VAT as per rules in force. Necessary declaration Form 'C' or prescribed certificate for availing supply of material on concessional sales tax shall be issued by the Nigam to bidder
- iv. Any statutory variation in existing rates of taxes /duties/ levies/charges during contractual completion period only of contract will be to Nigam' account. However, for claiming any such statutory variation, the contractor is required to furnish the documentary evidence / proof in support of the same for scrutiny and approval. Any downward variation in above rates of taxes/duties/levies will have to be passed on to the Nigam

7.9 PERIOD OF VALIDITY OF BIDS

- 7.9.1 The submission of any bid connected with these documents and specification shall constitute an agreement that the Bidder shall have no cause of action or claim, against the owner for rejection of his bid. The owner shall always be at liberty to reject or accept any bid or bids at his sole discretion and any such action will not be called into question and the Bidder shall have no claim in that regard against the owner.
- 7.9.2 The bids shall be valid for a minimum period of 120 (One hundred twenty) days from the date of opening Part-A or 90 (Ninety) days from the date of opening of Part-B wherever is later. Bids mentioning a shorter validity period than specified are likely to be summarily rejected / ignored.
- 7.9.3 Purchaser may ask for extension in validity period. The Bidder will be at liberty to accept it or not.

7.10 FORMAT AND SIGNING OF BID

- 7.10.1 The bidder has to submit Earnest Money Deposit, Tender document fee and e-tender processing fee before opening of Technical bid as given in the NIT. The Technical bid and financial bid shall be submitted on the website <https://www.eproc.rajasthan.gov.in>.
- 7.10.2 All copies of the bid shall be typed or clearly hand written and shall be signed (all the pages) by a person duly authorized to sign on behalf of the bidder, in token of acceptance of all the terms and conditions of the bidding document. This authorization shall consist of a written confirmation as specified in the bidding document and shall be attached to the bid.
- 7.10.3 Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the authorized person signing the bid.

7.11 SIGNATURE OF BIDDER

- 7.11.1 The bid must contain the name, address and place of business of the person or persons making the bid and must be signed and sealed by the Bidder under his usual signature. The name(s) of all the persons signing should also be typed or printed below the signature.
- 7.11.2 Bid by a partnership must be furnished with full names of all partners and be signed with the partnership firm name, followed by the signature (s) and designation (s) of the authorized partner (s) or other authorized representative (s).
- 7.11.3 Bids by corporation/ company must be signed with the legal name of the corporation/ company by the President, Managing Director or by the Secretary or other person or persons authorized to bid on behalf of such corporation/company in the matter.
- 7.11.4 A bid by a person who affixes to his signature the word 'President', 'Managing Director' 'Secretary', 'Agent' or other designation without disclosing his principal will be liable to be summarily rejected.
- 7.11.5 Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the bid.
- 7.11.6 The Bidder's name stated on the proposal shall be exact legal name of the firm.
- 7.11.7 Erasures or other changes in the bid documents shall bear the initials of the person signing the bid.
- 7.11.8 Bids not conforming to the above requirements of signing shall be disqualified.

7.12 DEADLINE FOR THE SUBMISSION OF BIDS

- 7.12.1 Bids must be submitted by the bidders on the website <https://www.eproc.rajasthan.gov.in> at the address and no later than the date and time indicated in the NIT.
- 7.12.2 Any change in date of submission and opening of bids would also be placed on the JVVNL websites immediately. However, if the modifications in bidding document,

specifications of goods and service are substantial, fresh publication of original bid inquiry may also be issued.

- 7.12.3 The tendering authority may, at its discretion, extend the deadline for the submission of bids by amending the bidding document, in which case all rights and obligations of the tendering authority and bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

7.13 DELAYED/ LATE BIDS

The tendering authority shall not consider any bid that arrives after the deadline for submission of bids as indicated in the NIT. Any bid received by the tendering authority after the deadline for submission of bids shall be declared as late and returned unopened to the Bidder.

7.14 RECEIPT OF TENDERS/ BIDS

7.14.1 Access to the bids is strictly restricted and will be provided only to the concerned officers of JVVNL doing the evaluation.

7.14.2 Bids received by modes other than submission on <https://www.eproc.rajasthan.gov.in> website will not be considered.

7.15 WITHDRAWAL, SUBSTITUTION AND MODIFICATION OF BIDS

A Bidder may substitute or modify its bid after it has been submitted before the deadline prescribed for submission of bids as per the e-tendering process but bidder cannot withdraw his bid after submitting it once.

7.16 BID OPENING

7.16.1 The designated Procurement Committee will perform the bid opening, which is a critical event in the bidding process.

7.16.2 All the bids received up to the specified time and date in response to all the bid inquiries shall be opened by the members of the designated Procurement Committee after entering their corresponding credentials (login id and digital signatures) in the website <https://www.eproc.rajasthan.gov.in> at the specified place, date and time in the presence of bidders or their authorized representatives who may choose to be present.

8. EVALUATION AND COMPARISON OF BIDS

8.1 BID EVALUATION

8.1.1 BID OPENING

- i. All the bids received up to the specified time and date shall be opened by the members of the designated Procurement Committee after entering their corresponding credentials (login id and digital signatures) in the website <https://www.eproc.rajasthan.gov.in> at the specified place, date and time.
- ii. Only the bids of those bidders who are technically qualified would be eligible for Financial Bid consideration. The date and time of Financial Bid opening to the qualified bid would be intimated. The bidder who's bid is financially lowest shall be termed as the successful bid.

8.1.2 Evaluation of techno commercial offer

The evaluation of bids will be made in the following three stages:

1st stage: Qualification Requirement (part 'A')

All the received bids will be evaluated first on the basis of minimum qualification requirement prescribed "Qualification Requirement" of this specification and on the basis of adherence to conditions given in this document.

The bidders who meet all the minimum requirements laid in this section shall be selected for evaluating the Technical offer. The bidders who do not qualify the QR as per section III, part 2 of this specification and other conditions, shall be considered as "not Qualified Bidder" and no further correspondence in this regard shall be entertained and no clarifications on reasons of not qualifying will be intimated.

It may be noted by the bidders that by merely meeting the qualification requirement does not mean that the bidder has been short listed for opening of financial offer.

2nd stage: Technical Evaluation

Technical details submitted by the bidders would be evaluated with respect to the relevant documents substantiating the details provided in the schedules and annexure.

The approach & methodology, previous experience of the firm, overall strength and capability to handle the work as per scope of work, experience of the key professionals, details of hardware, software, functionalities and other technical aspects would be evaluated. The objective of evaluation of techno-commercial proposals is to ensure that the bidder has the necessary competence to execute the project successfully and timely. Broad technical evaluation criteria are defined below.

8.1.3 Technical Bid Evaluation

The tendering authority shall determine to its satisfaction whether the bidder is selected based upon an examination of the documentary evidence of the bidder's qualifications submitted by the bidder, submission of valid EMD, valid bid document and bid processing cost and techno commercial proposal, schedules and forms as specified in the bid document.

Further a responsive bid would be the one that meets the requirements of the bidding document without deviation, reservation, or omission.

8.2 CONFIDENTIALITY

8.2.1 Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until publication of the Contract award.

8.2.2 Any attempt by a bidder to influence the tendering authority or other officials in the examination, evaluation, comparison, and post qualification of the bids or Contract award decisions shall result in the rejection of his bid.

- 8.2.3 From the time of bid opening to the time of Contract award, if any bidder wishes to contact the tendering authority on any matter related to the bidding process, he is allowed to do so in writing.

8.3 CLARIFICATION OF BIDS

- 8.3.1 The bidder is required to carefully examine the specifications and documents and fully inform himself as to all the conditions and terms matters which may in any way affect the Work or the cost thereof.
- 8.3.2 If any Bidder finds discrepancies or omissions in the specifications and documents or is in doubt as to the true meaning of any part, he shall at once request in writing for an interpretation/clarification by the owner.
- 8.3.3 The Owner, then, will issue interpretation and clarifications as he may think fit in writing. After receipt of such interpretations and clarifications, the Bidder may submit his bid but within the time and date as specified in the Invitation to Bid. All such interpretations and clarifications shall form a part of the specifications and documents, and accompany the bidder's proposal.
- 8.3.4 Verbal clarifications and information given by the owner or his employee(s) or his representative(s) shall not in any way be binding on the owner.
- 8.3.5 To assist in the examination, evaluation, comparison and post qualification of the bids, the tendering authority may, at its discretion, ask any bidder for a clarification of his bid. The tendering authority's request for clarification and the response shall be in writing.
- 8.3.6 Any clarification submitted by a bidder with regard to his bid that is not in response to a request by the tendering authority shall not be considered.
- 8.3.7 No change in the prices or substance of the bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the tendering authority in the evaluation of the Commercial/ Financial Bids.

8.4 DETERMINATION OF RESPONSIVENESS

- 8.4.1 The tendering authority's determination of the responsiveness of a bid would be based on the contents of the bid itself.
- 8.4.2 A responsive bid would be the one that meets the requirements of the bidding document without deviation, reservation, or omission where: -
- i. "Deviation" is a departure from the requirements specified in the bidding document.
 - ii. "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document.
 - iii. "Omission" is the failure to submit part or all of the information or documentation required in the bidding document.
- 8.4.3 A deviation, reservation, or omission is one that,
- i. If accepted, would: -

- a) Affect in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the bidding document; or
 - b) Limits in any substantial way, inconsistent with the bidding document, the tendering authority's rights or the bidder's obligations under the proposed Contract; or
 - ii. If rectified, would unfairly affect the competitive position of other bidders presenting responsive bids.
- 8.4.4 The tendering authority shall examine the technical aspects of the bid in particular, to confirm that all requirements of bidding document have been met without any material deviation or reservation.
- 8.4.5 The tendering authority shall compare all responsive bids to determine the best bid, in accordance with the provisions of this bidding document.

8.5 NON-MATERIAL NON-CONFORMITIES

8.5.1 Deviation from bid documents

- i. The offer must have 'No Deviation' certificate as per tender document
It is clarified that the bid should ideally be without any deviations. However if bidder opts to ask for certain deviation the same may be mentioned in the deviation sheet provided. JVVNL has right to accept or reject the deviations subject to their financial & technical implications. If deviation materially deviates the system envisaged the bid may also be rejected

It is further clarified that:-

(I) Bidder if don't have any deviation in its bid he can sign the certificate of no deviation.

Bidder if having any deviation in its bid he can give details of all deviation in the deviation sheet.

In case of deviation sought by the bidder that will be examined in two ways

- A) TECHNICAL DEVIATION: Whether the deviation will affect the specification, If so the bid may be declared not responsive
- B) COMMERCIAL DEVIATION: The financial implication of each deviation will be worked out and that will be loaded to bidder's quoted price while comparing with other bidders.
- ii. If the bidder has certain deviations, such deviations may or may not be accepted on its merit subject to financial and technical implications.
- iii. The bid must include a separate statement indicating all deviations from the bid documents as per format enclosed in tender document.
All such deviations must be clearly mentioned in Schedule of Deviation

9. Clarification or modification of bids

In the course of evaluation and comparison of bids, JVVNL may ask bidders individually for clarification, in writing. No change in the substance of the bid shall be permitted except as required to confirm the correction of any typographical error. JVVNL may modify Part-B of bid document even after opening of Part-A.

10. Revised Financial Offer

Before opening of original financial offer, JVVNL reserves the rights to ask the bidders probably only to the shortlisted bidders to furnish revised sealed financial offer, instead of opening the original financial offer, on account of any scope changes to be incorporated in the specifications subsequent to the opening of part A.

Under such circumstances the original financial offer will not be considered and will be superseded by the revised financial offer.

11. Opening of Part B bid

The date and time for opening Part-B Financial Offer will be intimated to the bidders, short-listed by JVVNL in due course. Part-B bid of the bidders, not short-listed shall not be opened and shall be returned to such bidders. Short-listed bidders or their representatives may attend Part-B bid opening.

12. Signing of agreement

The successful bidder will, on receipt of Letter of award from JVVNL enter into a contract with JVVNL by jointly signing an agreement. The draft of the agreement based on the terms sheet, detailed in Section-II and Section-III will be forwarded to the successful bidder for execution. The agreement will be executed within fifteen days thereafter. The person to sign the agreement must be duly authorized by the Bidding entities.

13. Rejection of bids: The bid may be considered as rejected /non-responsive on account of the any of following reasons:

- i. Any action on the part of the bidder to revise the rates/prices and modification in technical or commercial substance of original offer, at their own.
- ii. Submission of any supplementary information unless & otherwise asked for at his own instance after the opening of the Bid may result in rejection of the Bid and also debar him from submission of Bid to the purchaser at least for one year.
- iii. The owner reserves the right to accept or reject any bid on the established background, and to cancel the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for the owner's action.
- iv. In case of bidder not furnishing the desired information in the desired format the bid/offer may be rejected/non-responsive.
- v. In case of bidder not adhering to the format of financial offer given with this document the bid / offer may be rejected / non-responsive.
- vi. In case of any noting with financial offer comprising any supplementary statement or discount or any condition the bid / offer may be rejected / non-responsive.
- vii. In case of any misapprehension at bidder level which consequent to wrong price bidding , JVVNL reserve the right to reject the bid or take necessary loading / unloading to arrive the correct price as per perception of JVVNL / tender specification. Accordingly the bidders are advised to ask to clarify about any mis-apprehension before bidding. No excuse shall be considered in this regard.
- viii. The zero priced or null value price bid / bid component, offer may be rejected /considered non-responsive.
- ix. The Bidder has been disqualified from any other DISCOM for any violation of code of conduct.

- x. In case of bidder not furnishing the desired information in the desired format the bid/offer may be rejected/non-responsive.
- xi. In case of bidder not able to produce the original certificate as asked by Procurement Committee, the bid/offer may be rejected/non-responsive.
- xii. In case of bidder not adhering to the format of financial offer given with this document the bid / offer may be rejected / non-responsive.
- xiii. In case of any foot note or explanatory statement in the financial offer the bid/offer may be rejected/non-responsive.
- xiv. Does not meet the minimum eligibility criteria as mentioned in the bidding document.
- xv. During validity of the bid or its extended period, if any, increases his quoted prices.
- xvi. Has imposed conditions in his bid.
- xvii. Has made misleading or false representations in the forms, statements and attachments submitted in proof of the eligibility requirements.
- xviii. Has been terminated or suspended from work under any contract with a government department of India and their performance guarantee/ security forfeited due to violation of terms. If bidder hides any facts in this regard an appropriate action shall be taken and EMD shall be forfeited.
- xix. Has submitted bid which is not accompanied by required documentation and Earnest Money Deposit (EMD).
- xx. Who is found to canvass, influence or attempt to influence in any manner for the qualification or selection process, including without limitation, by offering bribes or other illegal gratification shall be disqualified from the process at any stage.

Note: Bidders may specifically note that while processing the bid documents, if it found expressly or implied, that some bidders may have compounded in any manner whatsoever or otherwise joined to form a cartel resulting in delay/ holding up the processing of bids then the bidders so involved are liable to be disqualified for the contract as well as for a further period of two years from participation in any of the bids floated by any department, Govt. of Rajasthan. It may also be clarified that if need arises then Tendering authority would go in for appointment of outside party(s) to undertake the work under the captioned bid

14. Financial Bid Evaluation

Bids of those bidders who have been determined as technically qualified would be opened and compared. The lowest quoted bid on the basis of Total Quoted price would be declared as successful bid.

15. AWARD OF CONTRACT

15.1. ACCEPTANCE OF THE TENDER/BID AND NOTIFICATION OF AWARD

- 15.1.1. Prior to the expiration of the period of bid validity, the tendering authority shall notify the successful bidder, in writing, that its bid has been accepted.
- 15.1.2. The tendering authority shall award the Contract to the bidder whose offer has been determined to be substantially responsive and having lowest price .
- 15.1.3. Decision on bids shall be taken within original validity period of offers which shall be kept up to 90 days from the date of opening of financial bids. If the decision on acceptance or rejection of a bid cannot be taken within the original bid validity

period due to unavoidable circumstances, all the bidders shall be requested to extend validity period of their bids up to a specified date.

- 15.1.4. As soon as a bid is accepted by the tendering authority, its written intimation would be sent to the concerned bidder. If the issuance of formal Work Order is likely to take time, a Letter of Intent (LOI) may be sent in the meanwhile. In the same intimation the bidder may be asked to execute an agreement in prescribed format on a non-judicial stamp of prescribed value and deposit the amount of prescribed performance security deposit within 15 days from the date of issue of acceptance.
- 15.1.5. The acceptance of an offer is complete as soon as the letter of communication is posted to the correct address of the bidder.
- 15.1.6. The acceptance of the bid shall also be placed on website of JVVNL for general information to all.
- 15.1.7. The EMD of the bidders whose bids could not be accepted shall be refunded soon after the agreement with the successful bidder is executed and his performance security deposit is obtained. Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.

15.2. SIGNING OF CONTRACT

- 15.2.1. The successful bidder will, on receipt of Letter of award from DISCOM enter into a contract with DISCOM by jointly signing an agreement.
- 15.2.2. The draft of the agreement based on the terms sheet, detailed in Section-II and Section-III will be forwarded to the successful bidder for execution.
- 15.2.3. The agreement will be executed within fifteen days thereafter. The person to sign the agreement must be duly authorized by the Bidding entities

15.3. RESERVATION OF RIGHTS

- 15.3.1. To take care of unexpected circumstances, DISCOM shall reserve the rights for the following:
 - i. Extend the closing date for submission of the bid proposals.
 - ii. Amend the bidding requirements at any time prior to the closing date, with the amendment being notified to prospective bidders.
 - iii. Allow a bidder to change its Technical proposal if the same opportunity is given to all bidders.
 - iv. To reject any bid on established grounds.
 - v. Terminate or abandon the bidding procedure or the entire project whether before or after the receipt of bid proposals.
 - vi. Seek the advice of external consultants to assist JVVNL in the evaluation or review of proposals.
 - vii. Make enquiries of any person, company or organization to ascertain information regarding the bidder and its proposal.
 - viii. Reproduce for the purposes of the procedure the whole or any portion of the proposal despite any copyright or other intellectual property right that may subsist in the proposal.

- ix. Note: Direct or indirect canvassing on the part of the bidder or his representative would be a disqualification.

15.4. Correction of errors, and omissions:

1. 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 Discom 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;
2. 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
3. If there is a discrepancy between words and figures, the amount in words shall prevail. However, where the amount expressed in words is related to an arithmetic error, the amount in figures shall prevail subject to (1) and (2) above.
4. If there is a discrepancy between percentage and figures related to various taxes or levies, the percentage shall prevail over figure mentioned. However, where the amount expressed in percentage is related to an arithmetic error, the amount in figures shall prevail subject to (1) and (2) above. It should also be noted that at time of payment against, the prevailing tax/levy rates will be used as on the date of approval of payment.

16. RE-INVITATION OF TENDERS/ BIDS

Re-invitation of bids would generally be avoided by the tendering authority. However, in case, higher prices than prevalent market rates have been received in the bidding process or considerable changes in specifications, terms and conditions are required to be made as a result of discussion in pre-bid conference or otherwise, re-invitation of bids shall be done.

17. GENERAL:

- 17.1.** Only one bid will be accepted against cost of specification paid. This specification is not transferable. The cost of specification will not be refunded under any circumstances.
- 17.2.** The bidder shall treat the details of the specification and other Bid documents as private and confidential and shall not reproduce without the written authorization of the JVVNL.
- 17.3.** The JVVNL does not bind itself to accept the lowest or any bid or any part of the bid and shall not assign any reason(s) for the rejection of any bid or a part thereof.
- 17.4.** The fact of submission of bid to the JVVNL shall be deemed to constitute an agreement between the bidder and JVVNL whereby such bid shall remain open for acceptance by the JVVNL and Bidder shall not have option to withdraw his offer, impair or derogate the same. If the Bidder is notified during the period of validity of bid that his bid is accepted by the JVVNL, he shall be bound by the terms of agreement constituted by his bid and such acceptance thereof by the JVVNL, until formal contract of the same bid has been executed between him and the JVVNL in replacement of such agreement.
- 17.5.** The successful bidder will have to execute the contract agreement for the proper fulfillment of the contract. In case of ambiguous or contradictory terms and

conditions mentioned in the bid, interpretations as may be advantageous to JVVNL may be taken, if satisfactory clarification is not furnished within the prescribed period.

17.6. JVVNL will not be responsible for any cost or expenses incurred by the bidder in connection with preparation or submission of bids.

17.7. Telex, Telegraphic or Fax bids shall not be acceptable.

17.8. JVVNL reserves the right to:

- a. Amend the scope of the proposed contract.
- b. Reject or accept any bid.
- c. Cancel the bid process and reject all applications.
- d. Vary the area.
- e. JVVNL shall neither be liable for any action nor be under any obligation to inform the bidders of the grounds for any of the above actions.

SECTION-II TERMS & CONDITIONS

Terms and Conditions

The Terms and Conditions of the contract shall prevail and shall be binding on the Agency and any change or variation expressed or impressed howsoever made shall be in operative unless expressly sanction by the JVVNL. The Bidder shall be deemed to have fully informed himself and to have specific knowledge of the provisions under terms and Conditions of this specification mentioned hereunder:

1. DEFINITION OF TERMS:

In constructing these general conditions and the annexed specification, the following words shall have the meaning here in assigned to them unless there is anything in the subject of context in consistent with such construction.

DISCOM shall means the power distribution companies viz. JVVNL.

The “JVVNL” shall mean the JAIPUR VIDYUT VITRAN NIGAM LIMITED represented by Chairman/Managing Director and shall include their legal personal representative, successors and assignees. The “Customer” or “Owner” or “Purchaser” shall mean “JVVNL”.

The “Tenderer”/ “Bidder” shall mean and include one or more persons or any firm or any company or body in corporate who has submitted the tender in response to “Invitation of Tender”.

The “Agency”/“Vendor”/ “Contractor” shall mean the tenderer who’s tender has been accepted by the “JVVNL” and shall include the tenderer heirs, legal representative, successors and assignees approved by the purchaser.

The “Chairman/Managing Director” shall mean the Chairman/Managing Director, JVVNL, Jaipur.

The “Engineer” shall mean the Chief Engineer, Dy. Chief Engineer, Superintending Engineer, Executive Engineer, Assistant Engineer, JVVNL, Jaipur or other Engineer or Officer for the time being or from time to time duly authorized and appointed in writing by the customer to act as engineer or Inspector for the purpose of the contract. In case where no such engineer has been so appointed, the word “Engineer” shall mean the JVVNL or his duly authorized representative.

“Works” mean and include the work or works to be done by the contractor under the contract.

The “Contract” shall mean and include the following:

- i. Invitation of tender
- ii. This bid document with issued amendments.
- iii. Bid furnished by the bidder.
- iv. Earnest Money Deposit.
- v. Letter of Intent and it’s acknowledgement.

- vi. All Bank Guarantees.
- vii. Formal Work order.
- viii. Addenda that may hereafter be issued by the purchaser to the contractor in the form of letter and covering letters and schedule of prices as agreed between the contractor and the purchaser.
- ix. The agreement is to be entered as per Terms & Conditions.

The "Specification" shall mean the specification and its issued ammendments; specific conditions annexed to the General Conditions, the contract schedule, and the annexure thereto, if any.

The Month shall mean, English calendar month i.e. period of 31/30 days and week shall mean a period of 7 days.

The "Site" shall mean the place or places named in the contract and include, where applicable, the lands and buildings upon or in which the works are to be executed.

"Letter of Intent" shall mean the customer's letter conveying his acceptance of the tender subject to such reservations as may have been stated therein.

The "Contract Price shall mean the sum named in or calculated in accordance with the provisions of the contract purchase or any amendments thereto.

Formal work order shall mean the customer's letter which may be issued in the way of letter of intent containing detailed terms and conditions of the work and such other particulars which the customer may like to convey to the contractor pending execution of a formal written agreement.

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

The Work "Codes" shall mean the Indian Electricity Act/Electricity Supply act and Indian Electricity Rules and the rules made there under applicable in the State of Rajasthan on the date of letter of intent with such special modification thereof as may be specially stipulated by competent State Authorities i.e. Chief Electrical Inspector of Rajasthan.

Works importing "PERSON" shall include firms, Companies, Corporations and other bodies whether incorporated or not.

Words importing the singular only shall also include the plural and vice version where the context requires.

Terms and expressions not herein defined shall have the same meaning as one assigned to them in the Indian Contract Act (Act IX of 1872) and falling that in the General Clause Act, 1897).

2. **CONTRACT:** After the completion of bidding process JVVNL will issue Letter of Award to the successful bidder. A contract shall be entered into between JVVNL and the successful bidder.
3. **CONTRACT VALUE:** Contract Value shall be calculated on the basis of quoted price of entire project as quoted in the financial schedule and accepted by the DISCOM.

4. **CONTRACT PERIOD:** The contract period shall be initially for a period of 10 years from the date of award of contract. The contract period shall be extendable for further 2 years on mutually agreed conditions.
5. **IMPLEMENTATION PERIOD:** The implementation period of project shall be maximum of eight months from the date of issue of work order for Feeder Monitoring System and for Additional points for Automated Meter reading shall be within 30 days date of notification by the Discom (in lots) if notified quantity is more than 500 meters then the same shall be completed @ 1000 meters per month, where in all the hardware, software, resources etc. should be installed/deployed.
6. **TERMINATION OF CONTRACT:** The termination of contract is based upon the performance of the work. If the average meter read provided by the contractor is less than 60% in three consecutive months than JVVNL the contract may be terminated (Except the penalty holiday period).
7. **FALL BACK ARRANGEMENT:** In the event of failure of the Agency to fulfil its obligations, duties and responsibilities as per the agreement terms, JVVNL shall **interalia** have the right, at any time to resort to fall back arrangement. Under this plan, JVVNL shall take charge of all facilities and systems whether in operation or under execution after giving suitable notice as provided in the agreement and can recover from the security deposit the losses suffered due to such failure. If the security deposit is insufficient, the Agency shall pay the difference to JVVNL failing which JVVNL shall have right to recover the sum through legal or other means.

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

The JVVNL shall have the right in such circumstances to blacklist/barred/disqualify the agency from submission of Bid to the NIGAM at least for one year.
8. **HANDING OVER ON TERMINATION/ PROJECT COMPLETION:** Following is to be handed over:
 - 8.1. All infrastructure in working condition at Backup centre with the licenses of operating system and database if any, has to be handed over to the Discom.
 - 8.2. Application software with source code and required licenses.
 - 8.3. All equipment's deployed by the vendor. 95% of the quantity of the transferred substation equipment's should be in working condition.
9. **SECURITY BANK GUARANTEE / DEPOSIT :** A Security Deposit/Guarantee equivalent to 2% (two percent) of annual contract value less amount of cash portion of earnest money deposited, within 15 days of receipt of work order, in cash or by crossed Bank Draft or by way of Bank Guarantee from any scheduled Bank in the prescribed proforma (In case, vendor furnishes the BG instead of cash deposit the amount of earnest money will be refunded) on a Rajasthan State Non judicial stamp paper of requisite amount duly authenticated by the issuing Banker.

This Bank Guarantee is to remain valid for a period of 12 months from the date of award of contract in the first instance and may have to be extended if desired. This bank guarantee shall

be released after 3 months of successful commencement of information received from all circles.

- 10. PERFORMANCE DEPOSIT/GUARANTEE:** A performance deposit / Guarantee equivalent to 10 % of annual contract value shall be deposited by the successful bidder either in the form of Bank Guarantee from scheduled Bank on non-judicial stamp papers of appropriate value as intimated by JVVNL in the prescribed format, for satisfactory work performance within 15 days of receipt of the Detailed Purchase Order. The Bank Guarantee is to be remained valid for a period of 5 years from the date of commencement of contract and may have to be extended upto 2 yrs if the contract period is extended as mutually agreed.

The PBG shall be released after expiry of contract period and on the basis of system generated performance report by the SE (IT).

11. CONTRACTOR TO INFORM HIMSELF FULLY

The Contract shall be considered to have come into force from the date of the issue of work award. The contractor shall be deemed to have carefully examined the General Conditions, specifications and schedules also to have satisfied himself as the nature and character of the work to be executed and where necessary, of the site conditions and other relevant matters and details. Any information thus had or otherwise obtained from the owner or the Engineer shall not be in any way relieve the contractor from his responsibility for the supplying of the hardware, software and other equipment and executing the work in terms of the contract including all details and incidental works and supply all accessories or apparatus which may not have been specifically mentioned in the contract but necessary for ensuring complete erection and safe and efficient working of the equipment if he has any doubt as to the meaning of any portion of the general and any special conditions of contract and specifications, he shall before offering his bid proposal, set-forth the particulars thereof and submit them to the Engineer in writing in order that such doubt, misunderstanding, misconceptions, whatsoever could be allied.

12. CONTRACT DOCUMENTS

The order placed under this specification shall be governed by the terms and conditions as incorporated in this Specification and as given in the detailed work order and its annexure(s). The terms and conditions as specified in this section if differ from the terms indicated in the detailed work order and its annexure(s) the latter shall prevail. The contract shall for all purposes be construed according to the Laws of India and subject to jurisdiction of Rajasthan Courts at Jaipur only. For the due fulfilment of the contract, the contractor shall execute an agreement in the prescribed form on Rajasthan State Non-judicial stamp paper bearing stamp duty as applicable. The expenses of completing and stamping the contract agreement shall be borne by the Contractor. Such agreement shall be executed and signed by the competent authority of the contractor on each page thereof. The original copy is only to be executed on the stamp paper. The remaining two copies may be executed on simple paper. Such complete agreement form along with the contract documents together with a "Power of Attorney" in favour of the Executants shall be required to be returned to the owner within a period of 15 days from the receipt of order duly signed on each page. One copy of the

executed agreement duly signed by the purchaser/owner shall be sent to the supplier for his reference. The contract documents shall mean and include the following:

- i. Contract agreement along with letter of Intent.
- ii. Work order and its Annexure.
- iii. Complete specifications and its amendments.
- iv. Bid proposal form and its schedules including price schedule and completion schedules.
- v. Power of Attorney in favor of the signatory.

The agreement shall set out specific events of default that will entitle the innocent party to terminate the agreement. The party committing an event of default, which is capable of being remedied, will be given a reasonable opportunity to remedy the default.

The agreement can however be otherwise terminated by either party by giving six-month notice and on terms to be mutually agreed which may include payment of suitable compensation for losses suffered by the other party due to such termination. These terms shall be included in the Contract Agreement.

Agency shall indemnify JVVNL against any claims, demands, costs and expenses whatsoever which may be made against it, because of failure of the Agency or its representatives in the performance of their duties and negligence, any accident or injury to any person

13. CHANGE OF QUANTITY

The owner reserves the right to increase or decrease the quantities of items as specified in the accompanying technical specifications as may be necessary, at the time of award of contract or during the execution of the contract. Any item can be deleted in total, if not required during execution.

14. Grafts AND COMMISSIONS ETC.

Any gift, commission, or advantage given, promised or offered by or on behalf of the contractor or his partner, agent, officers, director, employee or servant or any one on his or their behalf in relation to the obtaining or to the execution of this or any other contract with the owner, shall be, in addition to any criminal liability which it may incur, subject of any loss or damage to the owner resulting from any cancellation. The owner shall then be entitled to deduct the amount so payable from any moneys otherwise due to the contractor under the contract.

- 15. COMPLIANCE OF LABOUR LEGISLATION:** The tenderer shall discharge its liability of employer/ contractor in respect of personnel to be engaged for service, as said out in EPF and MP Act, 1952 ESI Act, 1948 (in ESI implemented area), workmen's compensation act, 1923 (in non ESI implemented area) contract labour (R&A) Act, 1970, Payment of Wages Act, 1936, Minimum Wages Act, 1948 etc. The tenderer is required to get separate code under the provision of EPF and ESI Acts, if not already taken and deposit the employer's contribution along with employee subscription, as per rule and submit copy of challans at the time of claiming payment, failing which an amount equivalent to employer's contribution and employees subscription shall be deducted from his each bill and deposited with the concerned authorities. The tenderer shall be solely responsible for any consequences arising out of breach of any legislation.

16. **SAFETY OF SYSTEM:** The Agency shall be fully responsible for upkeep, operation, maintenance, security and safety of substation equipment's installed by the vendor.
17. **INSURANCE:** The agency at his cost shall arrange, secure and maintain all insurance (equipment's installed at substation by them & the manpower) as pertinent to the works and obligatory in terms of law to protect its interest and interest of JVVNL against all perils. **Further all material shall be procured in the name of Jaipur Discom with the liability of vendor for replacement, insurance till currency of contract.**
18. **REMEDY ON AGENCY'S FAILURE TO INSURANCE:** If the Agency fails to effect and keep in force insurance referred to in this document hereof or any other insurance which he may be required to effect under the terms of contract then the JVVNL may effect and keep in force any such insurance and pay such premium(s) as may be necessary for that purpose and from time to time deduct the amount so paid by the JVVNL as aforesaid from any money due or which may become due to the Agency or recover the same as debt from the Agency.
19. **LIABILITY FOR ACCIDENTS AND DAMAGES:**
 - 19.1. The Agency shall be liable for and shall indemnify the JVVNL in respect of all injury to person or damage to property resulting from the negligence of the Agency or his workman or from defective work but not from any other cause.
 - 19.2. Provided that the Agency shall not be liable for any loss or profit or loss of Contract or any other claim made against the JVVNL not already provided for in the contract, not for any injury or damage caused by or arising from the acts of the JVVNL or of any other person or due to circumstances over which the agency has no control, not shall his total liability for loss, damage or injury under this clause exceed the total value of the Contract.
 - 19.3. The Agency will indemnify and save harmless the JVVNL against all actions, suits, claims, demands, costs, or expenses arising in connection with injuries (other than such as may be attributable to the JVVNL or his employees) suffered prior to the date when the work shall have been taken over hereof by persons employed by the agency on the work, whether at common law or under the workman's compensation Act-1923 or any other statute in force at the date of contract relating to the question of the liability of employees for injuries suffered by employees and will if called upon to do so take out the necessary policy or policies of insurances to over such indemnity.
 - 19.4. The agency shall insure against such liabilities with an insurer approved by the Engineer and shall continue such insurance, during the whole of the time that any person(s) are employed by him on the works and shall when required produce to the Chief Engineer, Jaipur and concerned Superintending Engineer (O&M) such policy of insurance and the receipt for payment of the current premium.
20. **MAINTENANCE OF FACILITIES AND PERSONNEL:** The Agency shall maintain all requisite facilities of its own as required to carry out the work as per the specification.
 - 20.1. The Agency shall provide and maintain a controlling office with requisite infrastructure at Jaipur with proper staff, & facilities shall remain open at all reasonable hours to receive communications.

- 20.2. The agency shall also maintain communication equipment's like telephone with fax, mobile phone, Internet etc. for interaction with JVVNL and others.
- 20.3. **PERSONNEL:** The Agency shall maintain supervisory and other personnel for efficient management of the work under contract. However this contract is on service model, agency shall be responsible for smooth & timely execution of work by appointing sufficient number of manpower.
- 20.3.1. Manager or an alternate shall be available for communication during all business hours.
- 20.3.2. Agency shall not change the Manager/nodal officer, frequently.
- 20.3.3. Agency shall immediately inform JVVNL about any change of personnel/contact numbers through Email/ post.
- 20.3.4. Agency shall issue identification cards to all its personnel engaged in the work under the contract. The identification card duly signed by Sr. Manager of the agency shall be consisting of Resume and photograph of the concerned personnel along with name and logo of the agency.
- 20.4. **NODAL OFFICER FOR EXECUTION OF PROJECT:** After award of contract to interact between the field offices and agency, JVVNL shall appoint a Nodal Officer if required. Similarly, the agency shall communicate the name of the authorized person(s) that would act as a Nodal Officer(s) from its side.
21. **AGENCY'S RIGHTS:** The agency will be given rights to operate in the area during the agreement period for carrying out the work, which shall cease to exist on completion of the said period or on termination of the contract.
- The Agency's rights in the area will be as an agent of JVVNL to observe proper functioning of meter/ DCU installation at 33/11KV Substations and other metering points.

22. PAYMENT TERMS & PENALTIES

22.1. Invoicing

The agency has to submit a Circle wise monthly invoice to the designated officer of the Nigam to be intimated in work order in triplicate for the entire area of the scope on rates indicated in the Work Award. The invoice has to be raised for the quantity of feeder meters monitored, read & meter data acquired and any other invoice as per scope of work during the calendar month.

The automated report generated from the web based software indicating the quantities of data acquired and uptime of the system as published on real-time basis has to be attached in support of the quantities claimed in the invoice.

22.2. Certification and verification

The designated officer of the Nigam shall verify and certify the invoice through system generated reports, the vendor shall provide an interface for verification of the invoice in the software to facilitate the verification authority to compute the actual work carried out and

amount of applicable penalty . The authenticity of verification interface shall be made by JVVNL before commencement of payment and it shall be password protected and un-editable.

22.3. Payment

100% invoice payment after deducting penalties if any shall be made within 30 days from the date of verification of the Invoice. Payment shall be made by Sr Accouts Officer(CPC) Jaipur Discom. The name of verification officer shall be notified in the work order.

22.4. Penalties :

- a. For any delay in IMPLEMENTATION AND ROLLOUT SCHEDULE of clause 23 A(8) and B beyond stipulated schedule, a penalty @1/2% (half percent) per week or part thereof shall be levied / recovered subject to a maximum of 10% (ten percent) of the contract value. Thereafter Nigam reserve the right to cancel the contract.
- b. Penalty shall be calculated on the circle basis and as under:

Sr.No.	Particular	Extent of penalty / No Payment
A	Extent of feeder / Meter information received on system**(monthly)	
1	Upto 95% of Total Feeders/ meters of Circle	No penalty
2	Below 95% and Upto 90% of Total Feeders / meters of Circle	No payment towards non reporting feeders + 5% penalty on unit rate on total number of non reporting feeders
3	Below 90% and Upto 85% of Total Feeders/ meters of Circle	No payment towards non reporting feeders + 10% penalty on unit rate on total number of non reporting feeders
4	Below 85% and Upto 80% of Total Feeders/ meters of Circle	No payment towards non reporting feeders + 15% penalty on unit rate on total number of non reporting feeders
5	Below 80% and Upto 75% of Total Feeders/ meters of Circle	No payment towards non reporting feeders + 25% penalty on unit rate on total number of non reporting feeders
6	Below 75% of Total Feeders/ meters of Circle	No payment shall be made
	**The penalty shall be calculated strictly as per above slabs and no benefit should be given for the preceding slabs	
B	Daily Data Communication of the SIM	
1	Communication of SIM for at least 21 days in a month	No penalty

2	Communication of a SIM is less than 21 days per month	Rs. 200/- per month per SIM
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Penalty Holiday : No Penalty shall be levied for Six months after roll out of System in First Circle.

Note :

- (i) Where ever reading will be taken from both Feeder Meters as well as meter provided on breakers, payment shall be made considering these as single unit. However, if even a single meter is communicated, shall not be considered for penalty provision.
- (ii) The firm shall furnish the daily communication report of the SIM alongwith the payment invoices
- (iii) Integration of the proposed System is to be done with RAPDRP system on Industry practice. The first payment shall be released only after necessary integration with the existing system at least for billing of consumers upto JVVNL satisfaction.

22.5. MOBILIZATION ADVANCE :-

On the request of firm an advance of 10 % of the contract value for one year may be made against Bank Guarantee (10 % of contract value of one year). The Bank Guarantee will remain valid initially up to 15 Months. The mobilization advance shall be recovered in 12 equitable monthly installments from the first running bill till the advance amount is fully adjusted.

The commencement of payment shall be effective only after completion of all contractual formalities and acceptance of BGs.

23. IMPLEMENTATION AND ROLLOUT SCHEDULE

The total completion period shall be as under:

A. For Feeder Monitoring System

S.NO	PARTICULAR OF ACTIVITY	TIME SCHEDULE DESIRED
1	FURNISHING DETAILED ROAD MAP	WITH IN 15 DAYS FROM THE DATE OF AWARDING CONTRACT
4	SUBMISSION OF DETAILED DATA SHEET OF SOFTWARE	WITHIN 45 DAYS FROM THE DATE OF WORK ORDER
5	PROOF OF CONCEPT	WITHIN 75 DAYS FROM THE DATE OF WORK ORDER.
6	COMMENCEMENT OF INSTALLATION OF SUBSTATION EQUIPMENT	WITHIN 90 DAYS FROM THE DATE OF WORK ORDER AND TO BE COMPLETED WITHIN 150 DAYS OF THE WORK ORDER
7.	COMMENCEMENT OF SYSTEM IN ONE CIRCLE WITH HOSTING ON CLOUD	6 MONTHS FROM THE DATE OF WORK AWARD

S.NO	PARTICULAR OF ACTIVITY	TIME SCHEDULE DESIRED
	COMPUTING	
8.	COMMENCEMENT OF SYSTEM IN ENTIRE AREA	8 MONTHS FROM THE DATE OF WORK AWARD

B. Additional Points for Automated Meter Reading (AMR) : The Commencement of the AMR system shall be subsequent to Feeder Monitoring System for which JVVNL shall issue notification within two years of date of work order. After Notification from Discom, work shall be completed for the notified numbers within 30 days of notification by the Discom (in lots) if notified quantity is more than 500 meters then the same shall be completed @ 1000 meters per month, where in all the hardware, software, resources etc. should be installed/deployed.

24. GOVERNING LAWS AND JURISDICTION: the Indian Law shall govern the agreement. Only appropriate courts in Jaipur shall have exclusive Court Jurisdiction to deal with any matter arising out of or relating to the agreement or otherwise.

25. JURISDICTION FOR LEGAL PROCEEDINGS: The contract shall be governed by the laws of India for the time being in force and be subject to the court of competent jurisdiction at JAIPUR CITY (RAJASTHAN) INDIA. All disputes, differences questions whatsoever arising between the JVVNL and the agency upon or in relation to or in connection with the contracts shall be deemed to have arisen at JAIPUR CITY only and no court other than court at Jaipur, Rajasthan shall have jurisdiction to entertain or try the same.

26. SETTLEMENT OF DISPUTES: In any time any question, dispute or difference what so ever which may arise between JVVNL and the agency, the same shall be decided by CMD/MD of JVVNL, or by the settlement committee constituted by him and shall be final and binding on both the parties.

The JVVNL has constituted settlement committee to settle the disputed cases. For the disputed amount up to Rs. 3.00 Lac the case may be referred to the CE level settlement committee and if the disputed amount is more than Rs. 3.00 Lac the case shall be referred to the corporate level settlement committee. The non refundable fees for referring the case to the settlement committee are as given below or prescribed time to time:

26.1. Reference fee for CE level settlement committee - Rs. 500/-

26.2. Reference fee for corporate level settlement committee-Rs. 3000/-

26.3. Fee for review of cases by corporate level settlement committee- Rs. 15000/-

26.4. The settlement committee fees as shown above or prevailing at that time shall be deposited in cash .

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

28. **LIEN:** In case of any lien or claim pertaining to the work and responsibility of the agency for which JVVNL might become liable, it shall have right to recover such claim amount from the agency.
29. **TENDER FORMS AND ACCEPTANCE OF TENDER:** Each tenderer must prepare and submit his tender strictly according to the procedure laid down in the instructions to tenderer annexed herewith.
30. **FORCE MAJEURE CONDITIONS:** If at any time during the currency of the contract the performance in whole or in part be prevented or delayed by reason of any war hostility acts of public enemy, civil commotion, sabotage, fire floods, explosion, epidemics, quarantine restrictions, strikes, lockouts or acts of god (hereinafter referred to as Events) then provided Notice and adequate proof of the production/dispatch having suffered on account of these events is given within 21 days from the date of occurrence thereof the provision of penalty Clause of this specification shall not be invoked by the purchaser provided further that the deliveries under the contract shall be resumed, as soon as practicable after such event (s) has ceased to exist and the decision of the purchaser as to whether the deliveries have been so resumed or not shall be final and conclusive provided further that in case the strike/lockout prolongs beyond a period of seven days, the supplier shall immediately inform about to the purchaser in which case the purchaser reserves the right to procure the material equipment on order or part thereof from any other source at the risk and cost of the supplier.

Delay in providing requisite protocols or delay in providing requisite CT PT Sets and Meter by Nigam shall be considered in force majeure conditions

31. **COMPLETENESS OF CONTRACT:** The contract shall be considered completed on termination of the contract period after full handing over of data, documents or material and clearing all dues towards the agency as specified in this document and certification by SE(IT).
32. **INSPECTIONS AND TESTING:**

The following clauses shall be applicable as per the requirement of this tender

The bidder shall furnish the valid Type Test Reports (Not Older than Three Years) for the offered material prior to supply, if same are applicable.

- 32.1. Before commencement of operation, JVVNL shall verify the infrastructure and equipment's as per the contract terms and specification subsequent to intimation by the agency. Also the requisite tests of the softwares shall be carried out.
- 32.2. The agency has to arrange demonstration of software or the entire solutions provided by it before deployment and incorporate requirements of JVVNL pertaining to work.
- 32.3. **The inspection and testing of offered material shall be arranged by the Superintending Engineer (IT), JVVNL, Jaipur and shall be governed by the provisions of clause of General Conditions of Contract of the bidding documents. All the material supplied should be duly inspected & cleared by the Nigam, before dispatch. The inspection may also be carried out by the Nigam at any stage of manufacturing. The contractor/manufacturer**

shall grant free access to the Nigam's representative at a reasonable time when the manufacturing is in progress. The contractor shall give 15 days advance intimation to the Nigam to enable to depute its representative(s) for witnessing the tests. Inspection and testing of any material by the Nigam against this contract shall not relieve the contractor of his obligations for supply of material in accordance with the specification and shall not prevent subsequent rejection if the material is found to be defective

32.4. **The vendor shall ensure compatibility of DCU/modem with meter prior to installation of DCU /Modem**

33. **VAT / SERVICE TAX** : The payment of State VAT / Service tax / Central Sales Tax shall be made only on furnishing the following certificate, which may be affixed on the bills preferred, or the material Supplied.

VAT / SERVICE TAX CERTIFICATE (Annexure)

i) Certified that the goods on which VAT / Service tax / Central Sales Tax has been charged have not been exempted under the Central Sales Tax Act / State VAT Act / Central Excise Tax act and that the charges on account of VAT on these goods are correct under the provisions of the relevant act or the rules made there under and that in case of supplies against regular contract, the relevant contractor also includes a specific provisions that the VAT is payable by the J.V.V.N.L.

ii) Certified further that we-----are registered as dealers in the state of-----under registration No.-----for the purpose of Central/State VAT/ Central Excise Tax.

iii) Certificate for VAT as per Rajasthan VAT / Service Tax Act and (c) form(s) as per Central Sales-Tax Act will be issued by the Sr. Account Officer (MM), JVVNL, Jaipur to the supplier on his request on completion of the entire supplies under order and on furnishing the copies of the relevant invoices together with the above declaration certificate.

iv) In no circumstances certificate for VAT and "C" form shall be issued along with letter of acceptance/purchase order and shall not be demanded by the supplier through bank on presentation of the dispatch documents.

v) In case the VAT assessment of the supplier(s) become due become completing the entire supplies against the order, certificate for VAT and C Form(s) for the supplies made shall be issued on specific request of the supplier made at least 10 days before the due date of VAT assessment on fulfilling the requirement of sub Clause(s).

34. **SUSPENSIONS OF WORKS**: The purchaser shall not be liable to pay the contractor any compensation whatsoever arising from suspension or for idle labour.

35. **DEATH BANKRUPTCY ETC.:**

35.1. If the contractor shall die or dissolve or commit any act or bankruptcy or being a corporation commence to be wound up except for reconstruction purpose or carry on hits, business under a receiver, the executors successors, or other representatives in law of the state of the contractor or any such receiver, Liquidator, or any persons to whom to the contract may become vested shall forth-with given notice thereof in writing to the purchaser and shall for one (1) month during which he shall take all reasonable steps to prevent stoppage of the

work have the option of carrying out the contractor subject to his or their providing such guarantee as may be required by the purchaser but not exceeding the value of the work for the time being remaining relieve unexecuted provided however that nothing above said shall be deemed to relieve the contractor or his successors of his or other their obligations under the contract under any circumstances. In the event of stoppage of the work the period of the option under this clause shall be seven (7) days only. Provided that, should the above option be not exercised, the contract may be terminated by the purchaser by notice in writing to the contractor and the same power and provisions reserved to the purchaser in clause 1.4 in the event of taking the work out of the contractor's hand's shall immediately become operative.

- 35.2. Change of name of the tenderer/supplier at any stage after tendering, the purchaser shall deal with the contractor only in the name and at the address under which he has submitted the tender. All the liabilities/responsibilities for due execution of the contract and if in circumstances he shall be relieved of any obligation under the contract. The purchaser may, however at his description deal with Agents/Representatives/Distributors/Manufacturers/Associates Principals/ Sister Concerns and such dealing shall not absolve the supplier(s) from his responsibilities/obligations/liabilities so the purchaser under the contract. Any change/alteration of name/constitution/organization of the supplier shall be duly notified to the purchaser, and the purchaser reserves the right to determine, the contract, in case of any such notification in the event of such determination the purchaser may affect the purchase of the material not supplied from elsewhere at the risk and cost of the tenderer/supplier.

36. GUARANTEE and REPLACEMENT OF DEFECTIVE/DAMAGED MATERIALS:

GUARANTEE:

This contract is on service model hence the entire Feeder Monitoring System and Additional Points for Automated Meter Reading should be guaranteed for satisfactory operation and good workmanship at least for an initial period of Ten years after date of award of contract. If contract is extended beyond this period, the guarantees shall be extended automatically. **During the period of contract all the supply, operate, repair, replacement, maintenance cost of entire system shall be borne by contractor.**

REPLACEMENT OF DEFECTIVE/DAMAGED MATERIALS

Notwithstanding anything contained in the above liquidated damages clause when the whole or part of the materials are found to be defective/damaged or are not in conformity with the specification or sample, such defects or damages in the materials supplied shall be rectified within 120 working hours from the time of intimation of defect/damage either at the point of destination or at the supplier's works, at the cost of supplier, against proper security and acknowledgement. In the alternative, the defective or damaged materials shall be replaced free of cost within 120 working hours from the date of receipt of the intimation from the purchaser of such defects or damages. If the defects or damages are not rectified or replaced within this period, the supplier shall pay a sum towards liquidated damages as per liquidated damages clause given above, for the delay in rectification/replacement of the defects or damages

37. **FAILURE TO EXECUTE THE CONTRACT:** Suppliers failing to execute the order placed on them to the satisfaction of JVVNL under terms and conditions set forth therein, will be liable to make good the loss sustained by the Nigam, consequent to the placing of fresh orders elsewhere at higher rate, i.e. the difference between the price accepted in the contract already entered into and the price at which fresh orders have been placed. This is without prejudice to the imposition of Liquidated Damages and forfeiture of security deposit.
38. **NON-ASSIGNMENT:** - The supplier shall not assign or transfer the contract or any part thereof to any agency/ personal during the contract period.
39. **EFFECTING RECOVERIES:** Any loss, arising due to non-fulfilment of this contract or any other contract, will be recovered from the Security & Performance Deposit/ Guarantees held and or any other amount due to the supplier from the Nigam from this Contract as well as from other contracts.
40. **ACCEPTANCE OF CONTRACT:** The successful bidder will be forwarded two sets of work order, two of which will be signed (each page) by him/his authorized representative in token of his accepting the contract and returned to the authority placing the order within 15 days of its issue, failing which, his EMD is liable to be forfeited.
41. **CLIMATIC CONDITIONS:** The system are for use in various geographical area of respective DISCOM and should be satisfactory for operation under tropical conditions of Rajasthan and shall be able to maintain the desired output and withstand a wide range of temperature & climatic experience in the area under scope.
 - i. The ambient temperature will be within the range of + 0 Degree Centigrade to + 55 Degree Centigrade.
 - ii. The altitude will be less than 500 metres.
 - iii. The maximum & minimum atmospheric humidity will be in the range of 95% & 10 % respectively.
 - iv. Average Number of thunderstorm days per annum is 65.
 - v. Average Number of dust storm days per annum is 15.
 - vi. Average Number of rainy days per annum is 65.
 - vii. Average annual rainfall is 100 cm.

The climatic conditions are prone to wide variation in ambient condition and equipment's offered under this specification shall be suitable for installation at any of the location in the area of Jaipur DISCOM

SECTION –III PART-I Pre-Qualification Requirements

INTRODUCTION: This section covers the minimum requirement with respect to experience, capability and other particulars of the Bidder to be considered eligible for participation in the bid for the proposed work. The BIDDER shall become eligible to bid on satisfying the following “BID QUALIFICATION REQUIREMENTS” and on production of the required documentary evidences along with the Tender.

- i. The bidder must possess the following requirements. It is clarified that the offer of those bidders who do not qualify the following requirements shall not be entertained and the same shall be considered as disqualified. It is also intimated that merely meeting the following requirements does not indicate that the bidders shall be short listed for opening of financial bid.
- ii. The short listing shall be made considering all the technical parameters furnished by the bidder along with the technical offer.
- iii. Qualification will be assessed upon meeting all the minimum criteria regarding the applicant’s general and particular experience, personnel capabilities, infrastructure availability, financial position, system proposed, methodology and plans to be adopted as detailed in the Bidder’s response to Technical Offer.
- iv. Merely on the basis of qualifying the requirements according to this section does not mean that the bidder is short listed / qualified for opening of financial offer.
- v. No deviation in the Qualification requirement shall be considered or allowed in any case.
- vi. Proposals may be submitted by an individual firm or joint ventures as one of the following:
 - a) A single firm, which meets all the requirements, mentioned above.
 - b) A joint venture/ consortium of upto two firms shall meet the requirements indicated above so that they jointly meet the requirements.

The figures of annual turnovers for joint venture partners shall be added together to determine their compliance with the minimum annual turnover requirements for the package. (In the ratio as defined below)

If the bidder forms a Consortium, it must collectively satisfy the pre-qualification criteria mentioned above for which purpose, the relevant figures shall be provided for each of the partners and total of these figures added together shall be considered to arrive at the Consortium’s capacity and capability. The bid shall be signed so as to legally bind all members indicating the role and responsibility of lead member and Consortium member. A copy of the consortium agreement on Non judicial stamp paper duly registered with sub registrar office of appropriate value satisfying the above conditions shall be submitted with the bid indicating role and duties of each consortium member.

The lead member of the consortium will be designated who shall be in-charge. He shall have due authorization with a power of attorney on non-judicial stamp paper, and shall be submitted with the bid from the Consortium members. The lead member shall be authorized to incur liabilities and receive instructions for and on behalf of any and all Consortium members for the entire execution of the job and dealing shall be done exclusively with the

lead member-in-charge. He shall also be authorized to receive payments on behalf of all members.

- vii. In case of successful bidder, the agreement shall be signed so as to be legally binding on all members of the consortium. All members of the consortium shall, however, be liable jointly and severally for execution of the job and fulfilling the terms and conditions of the agreement.
- viii. No Consortium shall be considered as valid unless each member has specific segregation of duties.

S.No.	Criteria	Supporting Documents Required
4.1	Proposals shall be submitted by an individual Bidder or through Joint Venture.	Self-Declaration
4.2	The bidder (Single) / Lead Bidder (JV) should be an Information Technology Services Company / OEM (Modem/DCU/Meter/CTPT) / Automation Company registered in India as per Indian Companies ACT and should have been providing services to power utilities / Transmission companies / Generation companies / E-Governance in India for the past 5 years	Certificate of Incorporation, MOU, AOA and other relevant certificate to substantiate the same.
4.3	The bidder (Single) / Lead bidder (JV) shall have experience of providing System Integration Services on service model involving supply, deployment of Hardware, Software Development & Manpower to power utilities / Transmission companies / Generation companies / E-Governance in India in any one of services like Meter Data Downloading & generating Reports, Meter Data Management, Meter Data Acquisition in last 5 years. Experience of bidder as Consortium Member or sub contract Works shall not be considered	Proof of Work Orders & Performance Certificates to be submitted.
4.4	The Lead bidder should be ISO 9001:2008 (Quality Management System)	Valid Certificates should be submitted.
4.5	The bidder (Single) / Lead bidder (JV) should have a total turnover of Rs 30 Crores during the last three financial years ending on 31-Mar-2016 (i.e. for the 2013-14 & 2014-15 & FY 15-16) . In case of consortium / Joint Venture, the lead bidder should meet minimum 75% of the Turnover requirement.	Copy of the audited statement of accounts (PL Account & Balance Sheet) duly certified by the Chartered Accountant to be submitted as a proof of turnover.

4.6	The bidder should not have been black listed by any power utility in India.	Self-Declaration
4.7	The bidder should have a minimum net worth of at least 7 Crore during financial year ending on 31-Mar-2016. In case of consortium / Joint Venture, the lead bidder should meet minimum 75% of the net worth requirement.	Copy of the audited statement of accounts (PL Account & Balance Sheet) duly certified by the Chartered Accountant to be submitted as a proof of net worth.

NOTE:-

1. In case of non-furnishing of requisite document along with the bid the bid will be considered as non-responsive and bid will be summarily rejected.
2. **Joint Venture / Consortium mean One Lead Partner and One other partner.**

SECTION –III PART-II Detailed Scope of Work

Jaipur Vidyut Vitran Nigam Ltd. [JVVNL] intends to implement the Feeder Monitoring and Automate Meter Reading System to cut down on the instances of erroneous and delayed feeder information and meter reading & other information so as to improve distribution network performance with timely preparation of energy audit and other reports.

The objectives is to provide services for efficient meter reading & complete data management by using modern technology i.e. AMR and MDAS system so that all feeder information and consumer meters can be read timely for generating all kinds of reports correctly without human intervention.

The supply of the meters are not covered in the scope of this contract. The meters at different locations provided are MODBUS/DLMS compliant. However, the solution provided shall be compatible with future meters also, which may be introduced in Indian market complying with DLMS/COSEM/IEC-62056/ANSI C-12 19/IEEE P 1377 Standards. The required protocols for communicating with the meters will be provided by the DISCOM.

1. The Broad Scope of work shall be as under :

S.No.	Particulars	Scope of work
A.	Substation Information System for Feeder Meters	Supply and install the required infrastructure at sub-station which includes : (i) DCU with Modem (alternatively separate DCU and Modem may be given) (ii) Cabling and accessories (iii) Boxes for housing the DCU and accessories (iv) Connectivity in name of the vendor shall be taken and if required NOC will be given (v) Integration with the RAPDRP system on Industry Standard methods
B.	Additional Points to be covered for Automated Meter Reading (AMR)	
a.	Boundary Meter Reading	(i) Store and forward type Modem with Cabling and accessories (ii) Integration with the RAPDRP system on Industry Standard methods
b.	Distribution Transformers in urban area	
c.	Consumers having load above 15 HP in SIP, 18.65 KW in NDS, ML, DS and agriculture connections or any other consumers	
C.	Proof of concept and Establishment of Data Center on cloud computing with backup server at Jaipur (a) Sizing of Data Center on the basis of AMR + FMS + 5% growth per annum (b) Connectivity from Data Center to Central level	

2. System Hosting:

The bidder shall host the feeder monitoring and Automated Meter Reading system on a cloud environment or at a tier 4 data centre. The IT infrastructure and system shall be highly secure, reliable, scalable, elastic and highly available throughout the entire contract duration. The cloud environment shall have inbuilt real-time backup facility. The setup should have auto failover configured and shall have availability of over 99%. The application shall be accessed over internet with required encryption and all the administration credential shall be shared with the DISCOM along with the required audit trails. There shall be a backup server installed by the vendor at JVVNL.

- i. The system shall run in the cloud where all portions shall be managed. No extra licensing fees shall be paid and new users can be added. **However for the sake of sizing all JEN, AEN, XEN, SE, CE and other officers approx. 1000 -1200 numbers may be considered as user with concurrency factor of 20%.**
- ii. In order to achieve goals System shall be able to access from a variety of devices like PC Tablets and Android & Windows Mobiles, in the office or on the go, which allows easier collaboration among your team.
- iii. The vendor shall manage servers, networking and storage, application, database and operating system and storage etc on cloud basis. This allows to avoid expenditure on automate scaling.
- iv. If owner needs extra data space for processing power on occasion the system shall be scaled based on **the growth rate of 10% per annum for 7 years on DISCOM needs.** This means that the extra data processing space is available whenever need it.
- v. Using this service model, and applications, data, operating system, middleware and runtime shall also be manageable by Discom.
- vi. **Integrating the proposed Feeder Monitoring System and AMR system with Metering, Billing , collection system, GIS system, WSS and other necessary software being implemented under RAPDRP Part A.**

3. GENERAL FEATURES

3.1. The substation meters and breakers shall be connected to the DCU through adequate cabling (vendor scope) through suitable last mile connectivity. The substation DCU device will acquire data from feeder meters and breakers, and will transmit the same to central data center server(s). Likewise the consumer and Boundary meters shall be connected through modem and will transmit the data to Central server and billing server to be integrated.

3.2. The proposed Feeder Monitoring and Automated Meter reading System is expected to provide continuous on line monitoring and logging of essentially, though not limited to, the following parameters in respect of metering points and Sub stations **as per Industry Standards. The system shall transfer complete data daily at 00 hours. However consumer meters information may be sent on weekly interval basis.**

- i. Active Energy Cumulative FWD
- ii. Active Energy FWD

- iii. Active Energy Cumulative REV
- iv. Active Energy REV
- v. Reactive Energy Cum FWD
- vi. Reactive Energy Cum REV
- vii. Apparent Energy Cum FWD
- viii. Apparent Energy Cum REV
- ix. Average Power Factor FWD
- x. Average Power Factor REV
- xi. Frequency
- xii. Breaker Tripping status (Only for Feeder Monitoring System)

3.3. The proposed system is expected to provide continuous on line monitoring and logging of above mentioned parameters and capability to disseminate information on web based application for:

1. System outage / downtime feeder wise with total power on HOURS
2. Energy balancing at sub stations
3. Daily peak loads feeder.
4. Peak Load of the Substation.
5. Bus bar profile.
6. Daily Log sheets
7. Tripping Status / number of tripping of breakers/ kiosk **(For capturing the breaker status for Earth Current / Over Current, requisite necessary components (CMR / DMR etc) shall be arranged by the bidder. The cost of these components shall be taken care off in their price bid.)**

3.4. The System shall transfer the complete load profile of the meter data for the 24 hrs period on daily basis at 00 hours (**consumer meters information may be sent on weekly interval basis**), complete load profile data on monthly basis etc., to the central server. The meter data shall be stored and made available for various analysis, generation of exception reports, export to third party systems and energy audit.

3.5. The System shall be accessible on internet and the information dissemination would be primarily through a web site designed on responsive technologies for facilitating access through mobile device, tablets, laptops, desktops etc.

3.6. The web application with user and role based access facility would be available over internet for access by various officers of the DISCOM.

4. BROAD FUNCTIONALITIES OF SOFTWARE

Sr.No.	Feature	Functionality
1.	Modular Design	Applications, systems and infrastructure are to be characterized as service-oriented, component-based & reusable. The system will be modular in design, operations and implementation.

2.	System Architecture	The supplier is to balance the adoption of standards used by market leading vendors and products, and adherence to industry standards and open architectures. Systems are to be acquired, developed, or enhanced in such a way that business processes; application and infrastructure services and data can be shared and integrated across the Utility and with potential business partners.
3.	Application architecture	Application architectures must be highly granular and loosely coupled. This is focused on loosely coupling systems compliant to Service Oriented Architecture to facilitate application recovery. This is to ensure that the failure of one component does not cascade to others. A tier can also be scaled to run separate applications to optimize performance.
4.	Web based design	All the application designed for this purpose shall be web based and the Purchaser at workstation shall be able to access through the latest available version of the web browser such as Internet Explorer, Fire Fox etc., Any add-on required must be integrated with latest version released by the developer at the time of Bid opening
5.	Business Process Requirement	Application requirements will be based on Utility's business processes and the functional requirements that derive from them. The application system should empower the Business Users in defining the business processes by process modelling.
6.	Data base server	The applications must be capable of running in a clustered environment as high availability configuration of database server that will run multiple workloads.
7.	Basic system architecture and Unified Access framework	The applications system should be built upon WS* specifications using open industry standards of Web services using XML, SOAP, WSDL and UDDI and should have the unified access framework compliant to W3C portal specifications for people, process and information by integrating the backend applications with single sign-on feature, role based, request based and hybrid user type access, searching and collaborative environment.
8.	Directory service	Common enterprise wide directory services shall be leveraged by all access systems and services used by all the enterprise users and adhere to commonly accepted standards such as LDAP.
9.	Message based interface	As per the requirement, Interfaces between separate systems (both internal and external systems) will be messaged based compliant to W3C XML standard/OPC/DDE/ODBC interface.

10.	Application Integration	<p>Integration technologies must be industry proven standards. They must be scalable in capacity and provide for extensive functionality.</p> <p>WS* based Web Services Integration specifications shall be used for integrating disparate systems, such as:</p> <ul style="list-style-type: none"> • Web Services Messaging Specifications including SOAP • Web Services Reliable Messaging • Web Services metadata Specifications including WSDL • Web Services XML Specifications • Web Services Business Process Specifications including BPEL4WS • Web Services Management Specifications EDIFACT and ANSI
11.	Data Storage	Data is considered to be an utility wide asset and is to be shared across the utility. Data stores for transaction processing shall be kept separate from data stores for decision support.
12.	Data access	The applications will access data through business rules i.e. the applications must not access data directly without going through APIs managed by business rules/ validation/workflow. Data should be collected once and used many times.
13.	Central data storage	Data shall be stored at central data centre.
14.	Network environment	The application should be capable in running in a hybrid network connectivity environment i.e. Dialup, PSTN, Wireless, Leased Line, WAN environment etc. including MPLS/VPN based secured tunnel.
15.	Mobile application	For display of critical information on Android / IOS base mobile, necessary software shall also be developed by vendor.

5. Dashboards and Reports

The application software shall have drilldown dashboards for depicting the real time status of the feeders along with the details of the energy flow statistics. The details and formats of the dashboards and reports that need to be generated online shall be finalized with the vendor during the implementation. Further the vendor should provide for changes, updating, modifications, new dashboards and reports during the entire project implementation as per the requirement of the DISCOM as and when required. The reports shall be generated and published periodically on the web server and shall be readily available for download and consumption. Further all the reports generated shall have option of exporting into xls, pdf etc.

Some of the reports that need to be generating at desired periodicity are:

1. Periodic information retrieval of all the feeders Meters and breakers. Meter reading and consumption consolidation into daily, fortnightly and monthly data for all other additional points for Automated Meter reading.
2. DATE WISE REPORT (WITH 3 PHAS E & 1 PHASE SEPARATELY) with monthly average.
3. ENERGY COMPARSION OF FEEDER METER & VCB PANEL METER (wherever VCB panel meters are available)
4. STATUS OF NON COMMUNICATING METERING EQUIPMEMTS
5. Transaction made during the reporting month i.e. change of CT-PT sets /Meter/DCU/any other equipments
6. INSTANTANEOUS PARAMETERS i.e. Voltage, Current, PF, Frequency, KWH
7. DAY WSIE BREAK UP OF 3-PH AND 1-PHASE SUPPLY HRS WITH monthly average along with GRAPHICAL PRESENTATION (Only for Feeder Meters):
 - a. GRPAHICAL PRESENTATION
 - b. GRAPHICAL PRESENTATION OF CONSOLIDATE SUPLLY HOURS
8. Feeder wise tripping (only for Feeder Monitoring System)
 - a. Over Current
 - b. Earth Fault

(For capturing the breaker status for Earth Current / Over Current, requisite necessary components (CMR / DMR etc) shall be arranged by the bidder. The cost of these components shall be taken care off in their price bid.)
9. Any other report which can be generated from the available data.
10. Finalization of reports which are to be available on the system shall be finalized before commencement of work.
11. Tripping Analysis (only for Feeder Monitoring System)

6. One time activity

Sr.No.	At Central level	At substation and other AMR level
1.	Design, develop and deploy the web based application software for data acquisition, data aggregation, data storage in common format, data dissemination, data display on DISCOM website, data analysis and depiction in form of dashboards, graphs and MIS reports etc. System for automated SMS alerts and email. The gateway and SMS charges is in the scope of vendor. Mobile application shall also be developed.	Supply and install the required infrastructure at sub-station level which includes : <ol style="list-style-type: none"> (iv) DCU (v) Modem (If not integral part of DCU) (vi) Soft SIM(Preferable) (vii) Cabling and accessories

	However it is expected that 500-600 SMS per month may be generated.	(viii) Boxes for housing the DCU and accessories At Consumer, Distribution Transformers and Boundary Meters: (i) Store & Forwarded type Modem with SIM (ii) Cabling and accessories (iii) BOX for Housing the Modem
2.	Supply and install the Backup system at a central location as specified by JVVNL . In case if other DISCOM are also opting this system, Separate backup system shall be installed there.	Arrangement of connectivity shall be on soft SIM basis (If available).
3.	Testing of Application software (Proof of concept, functionalities of software, availability of Service oriented architecture (SOA))- Details of tests at different stage shall be furnished by the bidder.	
4.	Providing catalogue of services, documentation including data structure.	
5.	To install backup system at JVVNL location which includes Server, Printer and other network equipment's.	
6.	Hosting of system on cloud computing.	
7.	Network equipment for Internet Bandwidth connectivity at Central location as per load condition	
8.	Network equipment for Internet Bandwidth connectivity of minimum 5 mbps at backup location	

Note : All other activities required for successful commissioning of the project are in scope of vendor.

7. Recurring activity

- Provide appropriate mode of connectivity at all level for pushing the data on the desired frequency on near real time basis at 00 hours to the central server on daily (Feeder Meters and DT meters) / weekly basis (consumer meters). It would be preferred that DCU/Modem should have provision of SOFT SIM (if applicable).
- Provide the required internet connectivity for web applications at Hosting level and backup location.

- iii. Provide the required supervisory and support personnel for operation and maintenance of the system.
- iv. Publish the required reports and MIS information online and publish the same for consumption by various users of the system.

8. Infrastructure to be supplied, installed and configured at different level

8.1. Data Convertor Unit (DCU) (AT SUBSTATION LEVEL)

Generic features:

- i. Bidder shall supply DCU suitable for monitoring of all substation feeders and reading the meters.
- ii. The bidder shall maintain DCU under good running conditions and ensure prompt support in case of any failure. Ideally, but not mandatorily the agency should maintain an inventory of the frequently required spare parts along with repair facility in order to reduce the down time of the devices. The agency shall keep sufficient buffer of spare devices for replacement of faulty ones.
- iii. DCU and its all related expenses i.e. operational, incidental, overhead, insurance and consumable, including GPRS data SIM or other mode charges etc. thereof will be borne by the agency.
- iv. Bidder shall ensure proper maintenance support for these devices with the OEM for entire duration of the contract.
- v. The DCU shall be able to communicate with the central server in real time basis at 15/ 30 minutes interval and shall be updated on the server immediately.
- vi. The selection of service provider for GPRS data SIM or other mode shall be done by the agency on the basis of availability of signals at a particular location.
- vii. The bidder shall furnish one sample of DCU conforming to specification duly sealed along with the test certificates directly in the office of the Superintending Engineer (M&P), JVVNL on the intimation by DISCOM.
- viii. The bidder must comply all the technical specifications as described in below table. The bidder may also supply higher version. Following are the mandatory technical specifications:

S.NO.	FUNCTIONALITY	DESCRIPTION
1	Processor	The DCU should have Real time operating Processor for reliable stand- alone operation, control, acquisition and Real Time Deterministic Control. The DCU shall have sufficient processing capability to handle data collection of IO points as per the IO count mandated, as well as handle scheduled meter data polling from upto 20 Energy Meters, handle data processing to update user interface requests and handle data reporting to central head end system simultaneously without degradation of performance.
2	Memory	DCU shall offer Storage for 5000 events and 15min load profile

		data from 20 meters for a duration of upto 45 days.
3	Network Communication	Network Communication: a)Local Area Network - 10/100 Mbps Ethernet LAN Port , b) Wide Area Network, c) device management/configuration - RS232 /USB2.0/ 10/100Mbps Ethernet LAN port viz a viz otherwise
4.	Communication Protocol	The DCU must support the MODBUS/DLMS protocol to communicate with Modbus enable peripheral devices.
5	Power Requirements	<ul style="list-style-type: none"> a. Power supply voltage range 110-120V DC/220VAC \pm 30% b. Low Power Consumption c. Adequate Battery back-up with minimum 2 hours backup to report power failure d. Inbuilt 6 KV surge protected SMPS based power supply
6	Environment	0 to +55 °C temperature range
7	Alarming & Scheduling	The alarms and schedules can be pre-set or customized as per the requirements of the utility. There should not be limitations on the number of alarms and schedules as per setting requirements
8	Data Logging & File Compression	Real-Time high speed data logging should be possible. The files shall be stored in various formats like text, CSV, Spreadsheet, ASCII, binary etc. It should be possible to implement various kinds of file compression techniques.
9	Inbuilt Clock on Real Time Controller	<ul style="list-style-type: none"> a. The real-time controller should have a very stable inbuilt clock with a battery backup b. Maintain time sync with meters and central location.
11	Date & Time Determination	The date and time of the controller should be possible to set remotely. At the same time it should be possible to configure to acquire the local date and time from the internet / GPRS network
12	GSM / GPRS Features	<ul style="list-style-type: none"> a. Supported GSM bands Quad GSM band: 900/1800 MHz b. GSM standard SMS, Fax, CSD (circuit), GPRS c. Cellular Data class 10 d. SIM card reader Tray Push Type and provision of soft SIM e. SIM lock function
13	On-board Stack	Suitable to address the needs of the envisaged system with adequate expansion facility.
14	Other Features	<ul style="list-style-type: none"> a. LEDs to display various status information e.g Tx, Rx, Communication with meter , GSM quality status

		<p>and data communication with server</p> <p>b. DCU shall have 8 Digital input & output, which shall be made expendable up to 2 times for which provision for extra card should have in DCU to monitor the status of circuit breaker and isolator, monitoring transformer, to cater the future need.</p> <p>c. DCU shall have the modularity and expandability to add additional capacity of DI/DO/AI (100 %)</p> <p>d. The proposed DCU at 33/11 kV Sub Stations shall have provisions to install a PC for local monitoring.</p> <p>e. Remote configuration of DCU over the air</p> <p>f. Two watchdog timers</p> <p>g. Time synchronization over network</p> <p>h. Network signal quality/strength monitoring over control center</p>
15	Status input	Should have inbuilt digital Input to monitor the status of power system devices and scalable for future expansion
16	Meter Interface	Interface with Meters: DCU shall have minimum 3 Serial port and one 10/100 Mbps LAN port to interface with Energy Meters. At least 2 serial port must be RS485 to connect multiple channels of multi dropped meters
17	Earthing of DCU	The earthing of the DCU shall be in the scope of the contractor
18	Local Monitoring	DCU shall have a native web server to enable authenticated user login for viewing of meter data, SLD, breaker status, alarms events, perform configuration download and monitor hardware health status on a local operator PC in the substation using standard web client such as Internet Explorer, Chrome, Firefox

8.2. Modem (Store and Forward type at all Distribution Transformer, Boundary meters and all other consumers)

General Features / requirements

1. The modems to be installed at respective premises shall be housed in the metal / SMC / Wooden enclosure in which meter(s) are installed.
2. The modems shall be suitable for remote meter reading via GSM / GPRS infrastructure. The communication and reading shall be enabled in the Software.
3. The modem shall read the data from the meter at pre-defined regular interval and stores in the modem's internal memory and subsequently forwards to the central control station for viewing and analysis via Software.
4. The system shall use optically isolated RS 232 serial port for communication with the meter.

5. A suitable wall mounting arrangement shall be provided.
6. The Modem shall comply with IP50 rating.
7. The modem base and top cover shall have a suitable sealing arrangement so that the GSM / GPRS card can not be tampered with.
8. The modem should be compact, rugged and reliable in design. The bidder shall furnish detailed dimensional drawings of the modem and its mounting arrangement along with the offer
9. All parts, which are subject to corrosion under normal working conditions, shall be protected effectively. Any protective coating shall not be liable to damage by ordinary handling or damage due to exposure to air, under normal working conditions.
10. The modem shall be designed and constructed in such a way as to avoid introducing any danger in use and under normal conditions so as to ensure specially personnel safety against electric shock.
11. EMI / EMC requirements
12. The modem shall meet the following EMI / EMC specification
 - a) Electrostatic Discharge as per IEC 61000-4-2
 - b) Fast Transient Burst as per IEC 61000-4-4
 - c) Surges immunity as per IEC 61000-4-5
 - d) Conducted Emissions as per IEC 61000-3-2 and CISPR 22
 - e) Radiated Emissions as per CISPR 22
 - f) Radiate Immunity as per IEC 61000-4-3
13. Inbuilt backup battery for main module and a separate second battery unit for GSM / GPRS module RTC.
14. Options of interfacing with IAMR via both optical port and RS 232 ports.
15. Screw mount / Magnetic mount antenna with different cable lengths and different

S.No.	FUNCTIONALITY	DESCRIPTION
	Applicable standards:	The modem shall conform in all respects to the relevant International Standard Specifications with latest amendments there to unless otherwise specifically mentioned in this specification The modem shall conform to following standards
		EN60068-2-6 : Vibration 10-500 Hz Sine vibration 5g
		EN60068-2-30 : Temperature / humidity damp heat cycling
		EN60068-2-1 : Cold (-40° C)
		EN60068-2-2 : Dry Heat (+85° C)
		EN60068-2-14 : Change in temperature (-40° C to +85° C)
		IEC 68-2-27 : Shock - 3 Shocks / 3mS duration 50g

	Power Supply	<ul style="list-style-type: none"> i. The modem shall be capable of being powered up with 110 Volt & 230 Volts \pm 30%, 50 Hz AC supply. ii. The modem shall get supply from the incoming terminals of the meters. iii. The external power circuit shall be provided along with the modem. Adequate electrical protection and isolation devices shall be provided in modem. iv. The modem should be capable to withstand surges and voltage spikes of minimum 6KV as per I EC 61000-4-5 by providing necessary isolation and/or suppression system in the modem. The bidder shall provide the details of the same along with the offer. v. The modem shall safely withstand the usual fluctuations arising during transient and persistent faults in the network without any damage to or mal-operation of the modems vi. Length of the power supply cable shall be minimum 1.0 meter. vii. The External power supply section shall be connected through a suitable 2 core cable directly soldered to the modem using a "Strain Relief sleeve. Or should be directly soldered on to the Modem PCB. iii. Power Consumption <ul style="list-style-type: none"> a. In idle condition : 2VA b. Max consumption during peak transmission : 10VA
	Environment	0 to +55 °C temperature range

	GSM / GPRS / Feature	<p>It shall comply the following.</p> <ul style="list-style-type: none"> i. The modem shall operate in dual band GSM / GPRS 900 and 1800 MHz. ii. The modem shall be compliant with ETSI GSM / GPRS Phase 2+ standard. iii. The GSM / GPRS engine shall be fully type tested and the supplier is required to submit the test reports along with the offer. iv. The modem shall be operated at <ul style="list-style-type: none"> a) Class 4 (2 W @ 900 MHz) b) Class 1 (1 W @ 1800 MHz) v. The modem shall support the following <ul style="list-style-type: none"> a) Short Messaging Service (SMS) features. b) Point to point transmission as well as cell broadcast features. c) CSD Asynchronous non transparent up to 9.6 kbps. d) HSCSD (2+1) up to 28.8 kbps e) Serial binary and asynchronous data format for data transfer vi. The modem shall have command buffer of at least 40 characters. vii. The modem shall have auto-dial feature.
	SIM Card	<ul style="list-style-type: none"> i. A SIM card hold holder shall be provide on the GSM / GPRS mother board and shall be accessible only after removal of cover of the GSM / GPRS modem. ii. It shall not be possible to insert / remove SIM card without opening the modem enclosure. It is desirable to have further interlocking facility under the modem enclosure. iii. Separate ESD (Electro-static Discharge) protection for SIM card on PCB. (The Opening and closing of IAMR with human hand may damage SIM inside modem due to ESD). iv. The bidder shall specify the specification of the SIM card to be used for the offered modem
	RF selection	<p>A SMA interface shall be provided on the GSM / GPRS modem to which either a fixed, removable or wired dual band antenna of 3 dbi gain can be connected</p>

	Memory	<ul style="list-style-type: none"> i. The modem shall have sufficient memory to store resident Software and data. The memory shall be scalable / upgradeable. ii. The modem shall have non-volatile memory, so that the registered parameters will not be affected by loss of power. iii. The non volatile memory should have a minimum retention time of 10 years. iv. Inbuilt 4MB non-volatile Data memory (Expandable to 8MB). Data memory for storing billing data, tamper information, voltages, currents, PF's etc. Inbuilt non-volatile memory for storing unit identification, loading circle, meter number & configuration data
	Real Time Clock	<ul style="list-style-type: none"> i. The modem shall have a real time clock and calendar with a battery totally independent of power supply. ii. Meter time or GSM / GPRS time would be synchronized in both the SOFTWARE and modem to take care of RTC variation errors
	Status Indicator	<ul style="list-style-type: none"> i. The modem shall have LED in the front which can be visible from the distance. ii. The LED shall indicate the operational status of the modem like <ul style="list-style-type: none"> a. Continuously glowing LED indicates absence of SIM card or no service or insufficient signal strength. b. OFF LED indicates non-availability of power to the modem c. Slow blinking LED indicates healthiness of the modem and is registered in the network d. Fast glowing LED indicates data communication in progress e. The bidder shall supply any other arrangement as a substitute to the above
	Baud Rate	<ul style="list-style-type: none"> i. The modem shall have capability to send / to receive data in asynchronous mode, transparent and non-transparent up to 14,400 bits per second. ii. The modem shall have non-transparent data transmission at 1200 / 2400 / 4800 / 9600 bps. The rate shall be selectable
	Memory Resident Software	<ul style="list-style-type: none"> i. The modem resident Software should be reconfigurable in order to select any one or a group of above parameters for load survey. The bidder shall provide details of load survey duration with combination of above parameters. ii. The modem shall be able to store following information as a part of configuration setting. <ul style="list-style-type: none"> a) No of meters connected to the modem

	Dialling	<p>b) Service number of the customer(s) c) Meter serial number(s) d) Name of the customer(s) The above can be reconfigured from the Software</p> <p>iii. Inbound dialling facility a) The modem shall have inbound dialling facility to a particular GSM / GPRS or PSTN number at specified time (Hourly / daily / weekly / monthly etc) for the purpose of meter reading. This configuration of the modem shall be available to the user via offered Software b) If the modem fails to establish connection to modem placed at the central station at specified time then it shall retry the same continuously for number of times. The number of times the modem will try shall be configurable through offered Software.</p> <p>iv. Event Based dialling a) The modem shall initiate a data call in the event of any tamper being logged by the meter and shall be able to send the relevant data to the central control station. b) The modem shall also send an SMS of minimum length of 150 characters which shall contain Customer Service Number, Name of the customer, area, mobile number, tamper description, date and time of tamper occurrence / restoration. It shall be possible to select all or group of tampers for initiating SMS service. c) When all the voltages are not available, the modem shall be able to detect power-off event and power-on event when supply is restored. Logging of power off event and power on event will be done on the next power up event. The power on and off event will be logged with date and time. ASMS shall be initiated by modem for such event. d) The modem shall poll all connected meters for occurrence of an event. The frequency of the polling shall be 30 minutes. If an event is found in the meter, it shall perform a meter reading of the meter and forward this data to the SOFTWARE. It shall also send SMS to minimum three predefined mobile devices.</p> <p>v. Outbound dialling a) It shall be possible to initiate a data call from the central control station. The connection shall be established by the server to the device using AT commands and transparent communication mode shall be established. Whatever data is coming on the serial port of the modem shall be transferred to the meter and response from the meter shall be transferred to the Software. b) The user shall have an option to collect the data directly from the meter or data already available in memory of the modem.</p> <p>vi. Facility to differentiate data inbound or outbound calls resulting in drop calls needs to be provided</p>
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Data Transfer between Modem and SOFTWARE

There shall be four different ways meter data transfer shall take place between modem and SOFTWARE.

- a. Transparent mode with outbound dialling
 - i. SOFTWARE initiates reading of meter data on user request or through scheduler.
- b. Non-transparent mode with outbound dialling
 - i. SOFTWARE initiates reading of meter data available in the modem memory.
- c. Non-transparent mode with inbound dialling
 - i. The modem shall initiate data transfer at a scheduled time configured in modem. The data stored in the modem is forwarded to the SOFTWARE.
- d. Non-transparent mode with event based outbound dialling
 - i. The modem shall initiate data transfer on occurrence of an event registered by the meter. The data stored in the modem is forwarded to the SOFTWARE.

Additional Features of the Software for Automated Meter Reading

- (i) The base control station shall be equipped with multiple serial communication ports which can be used to collect the data from the meters.
- (ii) The Software shall support multiple dialling through multiple communication ports at a time.
- (iii) The Software shall be able to schedule the meter reading. The SOFTWARE shall also configure data collection time, type of data to be collected, no of days of load survey data, tamper events as per user requirement.
- (iv) It shall be possible to exchange the configuration information (for writing configuration in to the modem or for reading existing configuration from it) of the modem.
- (v) Database Management: The bidder shall describe in detail the database management system for effective management and analysis of data received from all the meters.
- (vi) Data Validation : Whenever data is collected, the system will automatically validate the data collected by data validation rules.
- (vii) During communication with the meter, the system shall verify that the device ID of the meter matches the device ID stored in the SOFTWARE.
- (viii) Alarms
 - i. The system shall be provided with alarm system for any tamper events or excess demand registered by the meter. The same shall not be resettled unless otherwise being acknowledged.
 - ii. The system shall generate alarm as "Communication fail" on in case of failure of communication system.
- b) Comprehensive Tamper reports with options for 'Balance Tamper', Tamper Durations' and 'Filter Tamper' sortable by Location (Zone / Circle / Division / Sub-Division / Region) OR meter number OR Category of customers (Residential, Commercial or Industrial) OR Type of Tamper for quick snapshot of errors in the system.
- c) Up-to 8 Flexible time slots (TOD registers) for load control and pricing
- d) Flexible scheduling of meter reading by SOFTWARE automatically on a pre-selected daily, weekly or monthly basis. Flexible scheduling of automatic billing data retrieval from IAMR on a pre-selected daily, weekly or monthly basis.
- e) In the SOFTWARE Export all database tables to user defined formats as plain text, tab delimiter, character delimiter, word & excel format so that user can integrate the data in the main user system / interface.
- f) Whenever data is collected, the system will automatically validate the data collected by universally applicable data validation rules.

- g) Provision of importing bulk data of new consumer details to database from Excel worksheet itself with complete data validation rules in SOFTWARE.
- h) Single message broadcasting to group of energy meters searchable by Meter number, Consumer number or Zone / Circle / Division / Sub-Division / Region.
- i) Multi-level configurable password control with complete event logging (Audit Trail).
- j) "Received Messages" counter in status bar of the main screen (for Tamper reporting, instant values, cumulative Energy, MD, Signal Strength and billing values) instead of pop-up menus for ease of operation.
- k) Alert generation on schedule incoming / outgoing data failure to and from meter for complete control on overall system at any given time.
- l) Scalable, based on continuous user expansion with versatile hardware architecture and flexible Software.
- m) The IAMR shall send an SMS in case of tamper occurrence to the SOFTWARE and any 3 pre-assigned user defined cell numbers for automated tamper / theft detection. The sms shall contain Customer Service Number, Name of the customer, area, tamper description, date and time of tamper occurrence / restoration and voltage, current and PF values of the meter.
- n) SOFTWARE optimized for minimal operational cost of running the system by having capability of selecting / de-selecting kind of tampers which would automatically send SMS from IAMR (example Power Failure tamper switched on in only 1 IAMR versus the complete in a certain Zone).
- o) The IAMR shall initiate data transfer at a scheduled time configured in modem. The data stored via 'store & forward mechanism' in the modem is forwarded to the SOFTWARE, thus enabling data transfer speeds of 9600 bps as versus the traditional 1200 bps in conventional modem reading setups.
- p) Minimum 6 COM ports / GSM / GPRS modems connected to Single window screen on PC due to "multi-threading" feature, thus minimizing manpower / hardware costs of running the system.
- q) Single window for all open COM ports connected to SOFTWARE modems.
- r) The modem should have provision in future for I/O points.
- (ix) Reports
 - a) The system shall be able to generate various exceptional reports on tamper events and energy data.
 - b) The format of the reports will be given while defining Proof of concept.
 - c) All these meter information shall be available in simple and easily understandable format and shall be possible to export in industry standard office suits.
 - d) The SOFTWARE shall ensure that the data extracted from the meters using manufacturer specific algorithms in the Software up to downloading to the SOFTWARE remains secure during the process.
 - e) The bidder shall provide demonstration CD of the SOFTWARE along with the offer.

8.3. Cables and accessories for connecting the meters and breakers / CT PT Sets to DCU / Modem

All the accessories like the meter interface unit, cables etc., have to be supplied and installed for ensuring 100% communication between the Feeder Meter, Breakers and the DCU(for Feeder Monitoring System) and Meter to Modem for other additional points for Automated Meter Reading. The quantity of cables etc. shall have valid IS /IEC.

8.4. Boxes for housing the DCU / Modem and accessories.

The DCU /Modem and accessories shall be housed in a box (IP-65 compliant) to withstand the field conditions.

Appropriate connectivity with sufficient bandwidth for seamless real-time transfer of data push from the DCU / Modem to the central server shall be provided

8.5. Infrastructure to be deployed at the central location as Backup

The bidder shall deploy the requisite hardware like servers, routers, firewalls and related accessories at a location to be considered as backup location other than hosting place.

The required hardware for a secure, reliable and high available system shall be designed and deployed. The hardware sizing has to be done keeping in consideration the data volumes, data archival and also the addition of new sub stations during the contract period.

The required redundant bandwidth to be provisioned for high availability and quick data transfers.

8.6. Design, develop and deploy the web based software solution (SHALL BE HOSTED ON CLOUD COMPUTING)

General scope is to Design, develop, install and implement the required web based software solution for data acquisition, data aggregation, data storage in common format, data dissemination, data display on responsive website, data analysis and depiction in form of dashboards, graphs and MIS reports etc., provision for automated SMS alerts and email.

The minimum specification or functionalities that need to be achieved by the web based Solution:

- i. The system shall be designed and developed as per the latest standards and technologies on Service Oriented Architecture.
- ii. The system shall publish the required service catalogs for information exchange with third party systems.
- iii. The system shall have a web portal for public dissemination of the information and shall have a full fledged web application for consumption of DISCOM personnel. The web portal to be designed on responsive technologies for accessing over mobiles, tablets, laptops etc.
- iv. The System shall be secure and shall have user, role based configurable configuration with required event logging.
- v. The system shall expose the required web services to the data concentrators or data loggers for pushing the meter data and events.
- vi. The meter data and event information acquired shall be stored in the data base with time stamp.
- vii. The data obtained from various meters to be processed and stored into a common data base format.
- viii. The meter data obtained shall be processed on real-time basis and information disseminated on the web site, messages, emails etc.
- ix. The system shall analyze the meter data and generate various exception reports as defined and designed by the DISCOM.
- x. The system shall have capability to exchange the meter data acquired with third party systems through web services in regular interval.

- xi. The system shall have inbuilt facility for DCU device management i.e. to register, authorize and manage DCU devices.
- xii. The System shall have facility to upgrade the firm ware or software of the DCU if desired over the air.
- xiii. The entire transaction and events of communication, failure etc., with the DCU shall be logged along with time stamping.
- xiv. The system shall have in built user management and administration model for access control and logging for audit and audit trail.
- xv. The system shall have inbuilt comprehensive MIS reports as per the requirements of the DISCOM with provision to add and modify the same as and when required.
- xvi. The system shall have dashboards to depict the near real time information emanating from the DCU on various critical and essential parameters as desired by the DISCOM.
- xvii. The system shall have built in ticketing system to recording issues, escalation and resolution.
- xviii. The system shall have inbuilt comprehensive help and manuals.
- xix. The system shall be secure, high available and responsive.
- xx. The required email and SMS gateways shall be procured by the bidder within the quoted per month charges.

Integrating the proposed Feeder Monitoring System and Additional points for Automated Meter reading RAPDRP as per Industry Standards

The above requirements are high level and tentative, the successful bidder shall gather the requirements and prepare the system requirement specification and design, develop/configure the software as per the requirements of JVVNL. The bidder shall further update and provide for additional features and functionalities as and when required by JVVNL during the contract period.

Provide qualified required manpower for operation, maintenance and Updations of the system implemented.

Impart the required training to DISCOM officers for operation and usage of the system.

Transfer the infrastructure at backup location, at substation level and application software(95% of the transferred infrastructure should be in working condition) supplied and installed along with the required licenses to JVVNL at the end of the contract period.

9. Further Details/Requirements.

9.1. The proposed system shall provide monitoring and logging of following parameters:

- i) Voltage, Phase to Phase and Phase to Neutral
- ii) Current on each phase
- iii) Power factor
- iv) Frequency
- v) Power - Active / reactive / Apparent
- vi) Energy – Active, Reactive and Apparent
- vii) Breakers ON / OFF and tripping status (Only for Feeder Monitoring System)

9.2. The above mentioned parameters shall be used to generate Spread Sheets, charts, graphs and MIS reports as below:

- i) Downtime report.
- ii) Outage Report.
- iii) Daily peak load report.
- iv) Station wise Peak Load Report. (Only for Feeder Monitoring System)
- v) Daily Log sheets & any report as required by the Utility (Only for Feeder Monitoring System)
- vi) Feeder wise Energy Accounting report (Billing data shall be provided by JVVNL)
- vii) Total power ON hours on each feeder for single Phase & Three Phase supply separately
- viii) Total number of tripping on breakers along with duration in case of Earth Fault, Over Current, Manual Tripping/Shut down . **(For capturing the breaker status for Earth Current / Over Current, requisite necessary components (CMR / DMR etc) shall be arranged by the bidder. The cost of these components shall be taken care off in their price bid.)** (Only for Feeder Monitoring System)

9.3. Before proceeding with the execution of the aforesaid work, the Contractor shall fully familiarize himself with the site conditions. It shall be the responsibility of the Contractor to arrange all inputs required for detailed engineering and execution. The Bidders are advised to visit the sites, collect all necessary inputs and acquaint themselves with the topography, infrastructure etc. The Contractor shall be fully responsible for providing all equipment, materials, system and services specified or otherwise which are required for complete implementation of Feeder Monitoring System.

Test Instruments, Spares and Training as per tender specifications.

The Contractor shall also be responsible for the overall co-ordination with external agencies, project management, loading, unloading, handling, transporting to final destination for successful implementation of Feeder Monitoring System for JVVNL as per the scope of work detailed in the tender Documents.

9.4. In addition to above, following shall also be covered under the scope in the manner mentioned hereunder.

The number of Sub-stations, Distribution Transformers, Boundary Meter and consumers at different level may increase during the execution period of project as well during running & maintenance of Ten years. All the equipment and associated items required for such works may increase accordingly shall be supplied & erected/commissioned. During the currency of contract i.e. upto expiry of O&M period , in case of installation of entity from existing numbers , the vendor shall arrange to include the same in the system. In case of increase of such number of Sub-stations, Distribution Transformers, Boundary Meter and consumers at different level shall attribute to the monthly payment accordingly.

9.5. The System shall be scalable upto 200% open-ended and shall be capable to successfully interface with other systems of purchaser.

- 9.6. The contractor will also be responsible for obtaining the required Internet connectivity for the Central backup Centre, GPRS /EDGE/3G/LTE/CDMA for field devices from service providers. The recurring charges shall be borne by the purchaser. The Purchaser will however provide the necessary support if required in getting the clearances.

Although all precautions have been taken to prepare this specification, the detailed specifications may have contradictory provisions or redundant provisions at different clauses. In such cases the specifications clause, which is beneficial to Discom, shall be considered for the interpretation.

10. SYSTEM WORKING: The working of the system shall be as follows:

- 10.1. **Data Convertor Unit:** The DCU shall be installed at Sub station level and shall continuously capture the Meter and breaker data of a group of feeders at a power substation shall have capability to store data for 20 days and shall have a TCP/IP based GPRS/EDGE/3G/LTE./CDMA or alternative communication system. The DCU shall be able to support alternative communication system and in such case the alternative system shall be installed by the Vendor at no extra cost. The DCU shall transmit the data at regular interval to Data Center. The overall system shall be web enabled with viewing/control access to select users of the utility. The DCU shall have capabilities to add additional hardware for remote On/Off of feeders that shall be controlled through appropriate relays. The DCU should have the provision to control the operation through relays. These relays shall control the tripping and closing circuit of VCB. There should be a provision in DCU to change the controlling parameters (frequency of data logging and data communication) from central data center using GPRS/CDMA communication. The DCU should have capability to capture and transmit the supply status data in real time. The DCU shall take power from the auxiliary supply of substation which shall be provided by the Nigam. All the required cabling and installation of the supplied components shall be the responsibility of the bidder.
- 10.2. **Sstore and forward type Modem :** The Modem shall be installed at Additional points to be **covered for Automated Meter Reading (AMR) i.e. Distribution Transformers, Boundary Meters and other various level consumers** and shall continuously capture the Meter data and shall have capability to store data (as defined in Modem specifications) . All the required cabling and installation of the supplied components shall be the responsibility of the bidder.
- 10.3. **Central Data Centre:** The Central Data Centre shall be cloud based and all required infrastructure as per sizing of the system (Clause No. 16) shall be arranged by the vendor.

11. FUNCTIONING OF COMMUNICATION BACK BONE: This section shall elaborate the working of communication system which shall be used for operating the total system

- 11.1. **Substation to Central Data Centre:** The communication from the field to Central Data Centre shall be through the GPRS/EDGE/3G/LTE/CDMA connectivity using TCP/IP protocol. The data from the Substation shall travel the following route to reach the Data Centre:

- i) Request from Controller card of DCU to feeder Meters (Auto request at user defined interval which may vary from 15 minutes to 1 hour)
 - ii) Request received by the Feeder Meter / Breaker.
 - iii) Data sent by the Feeder Meter to DCU
 - iv) DCU shall have sufficient memory to store data.
 - v) The DCU shall be programmed to send data through GPRS/EDGE/3G/LTE/CDMA modem / SIM at user defined interval.
- 11.2. **Additional points for Automated Meter Reading (AMR) :** The communication from Additional points for AMR i.e. Distribution Transformers, Boundary Meters and other various level consumers to Central Data Center shall be through Modem as defined in Modem Specifications

The Central Data Center (Cloud) and Backup system shall be synchronized at least once in 24 hour.

12. MINIMUM TECHNICAL SPECIFICATIONS OF HARDWARE TO BE DEPLOYED AT BACKUP DATA CENTRE:

12.1. Server : 2 Nos.

- i. **CPU:** 1 x Quad Core Intel Xeon MP 2.0 GHz processor expandable to 2 processors
- ii. **Operating System:** MS Windows Server/Linux
- iii. **Hard Disk:** 2*300 GB Hot Swappable SAS HDD
- iv. **Memory:** 32 GB RAM expandable to 64 GB
- v. **Form Factor:** Rack
- vi. **Expansion:** Required expansion slots for scalability and extendibility.

12.2. Work Stations : 4 Nos.

- i. **Operating System:** Windows 10.
- ii. **CPU:** Intel I5 2.4 GHz or greater
- iii. **Hard Disk:** 500 GB HDD
- iv. **Memory:** 8 GB RAM
- v. **Monitor:** 17" LED/LCD

12.3. Printers

A4 Laser Printer

(A4 Size) – Up to 15 ppm, 600x600 dpi, black up to 5,000 pages per month duty cycle

12.4. Networking Equipment and connectivity as per requirement

Standard 24 port switch with 10/100/1000 mbps speed

12.5. Furniture

Vendor shall arrange appropriate furniture of reputed make to house all its staff, hardware and operators.

13. **Scalability** : The entire system including hardware and software shall be designed and deployed for the capacity 200 % of total numbers of Feeders and AMR Points.

14. **Training of JAIPUR DISCOM Engineers:** The contractor is required to provide **One week Training at Circle level (at JVVNL premises) to all Engineers from Junior Engineer to Executive Engineers shall be provided as one time activity** in depth training to Owners engineers at no cost to JVVNL on all aspects of the system being supplied. Training module shall be mutually discussed and finalized to cover Owner's personnel to operate, append, modify, trouble shoot, and interface the system with other billing and revenue management through hardware and software linkages. The contractor shall provide all the documentation and write up material for trainees. The training courses shall be structured and supported by "Illustrations, Video, and Charts. Certified trainers from the vendor's office shall impart the developer and system administration training preferably. The vendor shall provide extensive lecture notes, handouts and other training documents.

15. **Maintenance:**

The contractor shall be responsible for all the maintenance of the system till the operational period under contract. The consumables and spares wherever required for maintaining the system shall be provide by the contractor till operational acceptance of the system at no cost to JVVNL.

16. **SURVEY**

The bidders are presumed to have acquainted themselves with the scope of work of this specification by doing a walk over survey of the area/feeder before submitting their bid. After award of contract, a detailed survey shall however, required to be done by the contractor along with authorized Engineer of Nigam to assess actual quantum of work. The contractor shall have to execute the works in accordance with the quantities so assessed and approved by the Nigam.

17. **WORK PLAN**

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

18. **SYSTEM PERFORMANCE REQUIREMENTS:**

- i. **System Architecture:** The System shall be an integrated, well-documented standard software application. The product must be scalable, configurable and robust.
- ii. **Capacity and Expandability:** The System equipment (hardware and software) both shall be expandable throughout the expected life time of fifteen (15) years. These changes may be consequent to power system expansion or technological advances. In view of this, it is of utmost importance that the Control System design provides sufficient capacity and expandability to handle not only the present but also expected future power system requirements.

The technical specifications contain all the information which the tenderer requires to estimate the size and capacity requirements of hardware and software. System design,

insofar as concerns capacity and expandability, shall meet the following general requirements:

- a) It shall be designed, delivered and commissioned with sufficient capacity for performing specified requirements, inclusive of` all applicable optional software packages.
- b) Hardware and software shall be of modular design. Neither system functions nor hardware structure shall be subject to major disruptions when expanding, adding to, modifying or testing the hardware or software.

Further, clearly defined procedures shall be given for the performance of all changes related to the adding of one or more supplementary DCU(s) and Modems or the making of software modifications to reflect changes in the electrical network:

- c) The Tenderer shall detail how the system that he proposes fulfils the performance requirements.
- d) The DCU and modems located at various locations shall be designed, not only to be able to handle the required amount of information but also with a 20% spare capacity for each required category of information.

19. Security & Safety: The system shall provide an integrated security system which allows administrators to create users and grant those users permission to see/use the required data. The system shall disable a username-password combination after a number of failed login attempts and report it to the Administrator. The number of login attempts shall be settable by administrators as a system setting.

A. The system provides the following security features:

- i) Access to the system must be authorized by and authenticated by individual Login ID & Password.
- ii) The system will capture logs of user activities and user logins.
- iii) The system will protect the integrity and confidentiality of the data by allowing authorized staff access only.
- iv) The system has the ability to log all access to the system.
- v) All passwords shall be encrypted

B. Security is crucial for the Control System. Consequently the system shall be designed with a high degree of security which entails for each unit the following minimum requirements:

- (i) Each component shall be designed so that its failure doesn't initiate inadvertent indications or operations .,
- (ii) Failure of one component or module shall be localized and cause no further component or system failures,
- (iii) Incorrect instructions and data, inadvertent operations and unauthorized commands shall be refused.
- (iv) System security must be given special attention, in particular neither incorrect output nor shall inadvertent operations be possible under the following conditions:

- a. Single component or all component failure,
- b. When switching over to redundant equipment,
- c. During preventive or corrective maintenance of equipment, or while testing, notably with reference to the removal or replacement of a plug-in module,
- d. With software development, debugging, integration or testing,
- e. When modifying, expanding, adding or testing hardware,

The above list is not exhaustive. All security features for the proposed system shall be described in detail by the Tenderer.

20. Maintainability: The supplied system shall possess, with reference to maintenance, the following minimum features:

- a) It will be of modular design,
- b) Diagnostic and troubleshooting procedures shall be provided to enable field replacements down to module level, when applicable.
- c) Maintenance shall be performed, as far as possible, with standard general purpose instruments and tools.

21. Availability and Performance Standards:

Equipment	Up time
Central Data Center (Servers and Networking)	98%
DCU , Modem and other Field devices	95%

22. Project Management Schedule and Documentation:

- i. **Project Management:** The Contractor shall assign a project manager with the authority to make commitments and decisions that are binding on the Contractor. Purchaser will designate a project manager to co-ordinate all purchaser project activities. All communications between purchaser and the Contractor shall be coordinated through the project managers. The project managers shall also be responsible for all communications between other members of the project staffs.
- ii. **Project Schedule:** The project implementation schedule is from date of detailed order. Based upon this schedule the bidder shall submit a preliminary implementation plan along with the bid. The detail project implementation schedule shall be submitted by the contractor after award for purchaser's approval, which shall include at least the following activities:
 - i) Site Survey
 - ii) Documents submission and approval schedule.
 - iii) Factory & Site Testing Schedule.
 - iv) Database development schedule.

v) Hardware purchase & Manufacturing, Software development & integration schedule.

vi) Installation schedule.

vii) Training schedule.

The project schedule shall include the estimated period for completion of and its linkage with other activities.

23. Documentation:

- (i) To ensure that the proposed systems conform to the specific provisions and general intent of the Specification, the Contractor shall submit documentation describing the systems to purchaser for review and approval. Further the Contractor shall also submit the drawings/ documents for all the hardware & software required for site installation, testing and commissioning and thereafter operation of the system. The contractor shall obtain approval of purchaser for the relevant document of each stage before proceeding for manufacturing, system development, factory testing, site testing, training etc. The schedule for submission / approval of each document shall be finalized during the discussions before placement of the contract; this schedule shall be in line to overall project schedule.
- (ii) Each document shall be identified by a Contractor document number, the purchaser document number, and the purchaser purchase order number. Where a document is revised for any reason, each revision shall be indicated by a number, date, and description in a revision block along with an indication of official approval by the Contractor's project manager. Each revision of a document shall highlight all changes made since the previous revision.
- (iii) The Contractor shall submit two copies of each document / drawing for purchaser's review and approval. After approval five sets of all the documents shall be submitted as final documentation, however, for site specific documents two sets of documents shall be provided for each site. Any changes observed during field implementation shall be incorporated in the as-build drawing and required sets of the same shall be submitted to purchaser/ Purchaser. In addition to paper copies all the documents shall also be provided on electronic media in two copies. In case any documentation requirement is specified in the relevant section the same shall apply for the equipment / system defined in that section. The contractor shall also supply five sets of User manuals/ guides/ O&M manuals/ manufacturer's catalogues for all the hardware & software supplied under the contract which shall be in addition to the one set each at all the locations where the system has been installed. The user manual shall at minimum include the principle of operation, block diagrams, troubleshooting and diagnostic and maintenance procedures. Considering all the components of the project briefly the following documents / drawings shall be required under the project.

-System description documents (Overview)

-Data requirements sheets.

-Software Requirements Specification.

-Data base documents.

-Drawings/ documents for manufacturing/ Assembly of the equipment/ system.

- Drawings/ documents for installation of the equipment / system at site.
- Software description / design documents for each software module.
- Factory Test report.
- Manuals for each equipment / hardware / test equipment.
- Bill of Quantities.
- Site Testing documents.
- Training documents.
- System Administration Manual.
- User guide.

(iv) The contractor shall prepare and submit 3 sets of all the standard and customized DCUs and Modem documents for review and approval which includes the following.

- (a) DCU and Modem function design document.
- (b) DCU and Modem hardware description document.
- (c) DCU and Modem test equipment user document.
- (d) Use of DCU and Modem operation and maintenance document.
- (e) DCU and Modem training documentation.
- (f) DCU and Modem Data base documentation.
- (g) DCU and Modem test procedures.
- (h) Data requirement sheets of all items.
- (i) DCU and Modem installation, layout, GA, BOQ, schematics and internal wiring drawings for each DCU and Modem site.
- (j) DCU to C&R Panel cabling details for each DCU site.
- (k) Modem to Meter cabling details.

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

- i) Detailed methodology/ project report/ modus operandi to be adopted to execute the contract.
- ii) Resources with list of man power to be deployed to execute the contract
- iii) Detailed list of inputs to be required from the JVVNL.
- iv) Clearly spell-out the obligation to be completed for execution of the work.

- v) Detailed Functional design & specification of the equipments to be installed at every location with GTP (Guaranteed Technical Particulars).
- vi) Testing procedure as per the relevant clause of the specification.
- vii) Detailed methodology of Training system.
- viii) Break up of total time schedule allowed for completion of supply in GANTT chart. The GANTT chart shall include milestone of approval of types and makes.
- ix) Type of communication system proposed at each S/S
- x) Type of modem to be used at each S/S / Boundary Meters

The JVVNL on receipt of the inception/ FDS report will furnish its recommendation for any modification, if required, within 15 days of receipt the same. If no communication is received from the JVVNL within the stipulated period it shall be presumed that the inception report is in order and you may go ahead to start the work accordingly.

25. Replacement of defective meters and CT PT sets

In case of any CT PT sets and meters are reported as defective, the same shall be replaced by the vendor on unit rate. The CT PT sets and meters shall be arranged and provided by the Feeder Manager of the circle and the same has to be replaced within 5 **working** days / 120 **working** hours from the receipt of new meter / CT PT sets.

Feeder Manager will ensure to maintain the buffer stock i.e. 5 nos. CT PT sets and 5 nos. of meters .

The transportation of CT PT Sets and meters to and Fro shall be the responsibility of the Vendor.

Feeder Manager of Discoms shall be Nodal officer to identify defective CT PT sets and Meters

26. SCHEDULE OF REQUIREMENT (Approximate) :

Sr.No.	Circle	No. of Substations	No. of feeders	Number of Boundary Meter for AMR	Number of Distribution Transformers for AMR	Number of consumers for AMR
1.	13 Nos.	1247	5000	500	40242	19730

The Protocol of the Meters shall be provided to the vendor by the Designated Officer Likely by MM wing.

TECHNICAL OFFER TO BE FURNISHED BY THE BIDDER ON THE COVER LETTER

To be submitted complete with all enclosures.

**The Superintending Engineer (IT)
Jaipur Vidyut Vitran Nigam Limited
Old Power House Premises
Near Ram Mandir, Banipark
Jaipur-302 006**

SUB: We submit our technical offer for the work of “INSTALL AND OPERATE FEEDER MONITORING AND AUTOMATED METER READING SYSTEM ON SERVICE MODEL in Jaipur DISCOM.” against TN-55.

Dear Sir,

We have submitted our technical offer for work of “INSTALL AND OPERATE FEEDER MONITORING AND AUTOMATED METER READING SYSTEM ON SERVICE MODEL in Jaipur DISCOM.” against TN-55.

We are submitting our proposals for with complete set of enclosures.

We agree for execution of tendered work

We also agree that:

- 1) The prices as mentioned in BOQ.
- 2) The prices quoted are valid for a period of 120 days from the date of opening of “Techno-Commercial bids” or 90 days from the date of opening of “Price Bids” whichever is later
- 3) The quoted / agreed prices are inclusive of the following charges:
 - Enclose details of taxes included in the prices
- 4) We also understand that the quantities mentioned in the price schedule shall be meant for bid evaluation; however payment shall be made us on the basis of actual work.
- 5) We have noted the standard terms of payment and undertake to abide by the same.
- 6) We understand that conditional offers are likely to be rejected
- 7) The execution of work shall strictly be in accordance with work completion schedule as given by us. In case we fail to complete the work as indicated therein we shall pay penalty as per specification.
- 8) The material supplied by us shall conform your specification
- 9) We confirm that we agree to adhere to all the commercial terms and conditions as well as the technical stipulation of your specification and there is no deviation. Such acceptance has also been confirmed in prescribed schedules.
- 10) We confirm that we are qualified for bidding in terms of Qualification Requirements specified in the bidding documents and have submitted the requisite qualification Certificate & data / documents with the bid.

- 11) Until a formal contract is prepared and executed, this together with your written acceptance thereof in your notification of award shall constitute a binding contract between us.
- 12) We understand that the quantity mentioned in the financial schedule is just for evaluation purpose and except the fixed monthly charges all charges shall be paid on actual work basis.
- 13) We understand that JVVNL reserves the right to invite detailed proposals from any private entrepreneur-company; irrespective of the fact whether the company or entrepreneur has been pre-qualified.
- 14) We also understand that the JVVNL reserves the right to reject any or all of the bids without assigning any reason thereof.

We agree to abide by all the conditions governing the proposals and decisions of the JVVNL.

Enclosed:

1. Annexure 1: General profile of the bidder
2. Annexure 2: Financial capabilities
3. Annexure 3: Compliances of Pre-Qualification Requirement
4. Annexure 4: Proposed System
5. Annexure 5: Details of Dash Board and Query Builder
6. Annexure 6: Approach & Methodology for executing this project (Details of the system proposed; a write up on the system that would be installed / developed to meet the requirements as specified in scope of work) (Bidders format).
7. Annexure 7: Manufacturer Authorization Form (MAF).
8. Annexure 8: Project Implementation plan. (Bidders format).
9. Annexure 9: Schedule of deviations (tech & commercial deviation)
10. Annexure 10: Confirmation of "No deviation" in technical / commercial terms and conditions of this tender
11. Power of Attorney / Board Resolution in favour of signatory of the bid. (Bidders format).
12. **An undertaking on Rs 100/- Stamp Paper that all the information against schedules, Annexure 1- 10, Certificates etc. furnished are correct and if in future Discom discover that any information furnished is not true, same may lead to the rejection of bid or termination of contract.**

Thanking you,

Yours faithfully,

Designation_____

Date:

ANNEXURE – 1: GENERAL PROFILE OF THE BIDDER

Kindly attach a copy of latest RoC to substantiate the information furnished against general profile of the bidder

Details	Responses
Full legal name of the firm	
Year of establishment	
Registered Office Address	
Address for Correspondence	
Telegraphic Address	
Authorized person(s) to be contacted	
Telephone number(s)	
Email id	
Fax number	
Names and Addresses of the Firm	
Type of the firm Private limited/Public limited/ Government sector /other	
Whether registered under companies act or any other act	
Registration Number & Date	
Total number of permanent employees in the firm	

In case of Joint Venture / Consortium, separate sheet to be furnished for each member.

ANNEXURE – 2: FINANCIAL CAPABILITIES

S. No	Financial Year	Turn Over (in INR)	Reserve and Surplus (In INR)
1	FY 2013-2014		
2	FY 2014-2015		
3	FY 2015-2016		

S. No	Financial Year	Net worth (in INR)	Reserve and Surplus (In INR)
1	FY 2013-2014		
2	FY 2014-2015		
3	FY 2015-2016		

Enclose audited Balance Sheets of the aforementioned FYs signed by chartered accountant.

Note: In case of Joint Venture / Consortium separate sheet of financial capability of each member shall be furnished.

ANNEXURE – 3: Compliance of Pre Qualification Requirement

S.No.	Criteria	Supporting Documents Required	List of Documents furnished by the Bidder
4.1	Proposals shall be submitted by an individual Bidder or through Joint Venture.	Self-Declaration	
4.2	The bidder (Single) / Lead Bidder (JV) should be an Information Technology Services Company / OEM (Modem/DCU/Meter/CTPT) / Automation Company registered in India as per Indian Companies ACT and should have been providing services to power utilities / Transmission companies / Generation companies / E-Governance in India for the past 5 years	Certificate of Incorporation, MOU, AOA and other relevant certificate to substantiate the same.	
4.3	The bidder (Single) / Lead bidder (JV) shall have experience of providing System Integration Services involving supply, deployment of Hardware, Software Development & Manpower to power utilities / Transmission companies / Generation companies / E-Governance in India in any one of services like Meter Data Downloading & generating Reports, Meter Data Management, Meter Data Acquisition in last 5 years. Experience of bidder as Consortium Member or sub contract Works shall not be considered	Proof of Work Orders & Performance Certificates to be submitted.	
4.4	The Lead bidder should be ISO 9001:2008 (Quality Management System)	Valid Certificates should be submitted.	
4.5	The bidder (Single) / Lead bidder (JV) should have a total turnover of Rs 30 Crores during the last three financial years ending on 31-Mar-2016 (i.e. for the 2013-14 & 2014-15	Copy of the audited statement of accounts (PL Account & Balance Sheet) duly certified by the Chartered Accountant to be	

	& FY 15-16) . In case of consortium / Joint Venture, the lead bidder should meet minimum 75% of the Turnover requirement.	submitted as a proof of turnover.	
4.6	The bidder should not have been black listed by any power utility in India.	Self-Declaration	
4.7	The bidder should have a minimum net worth of at least 7 Crore during financial year ending on 31-Mar-2015. In case of consortium / Joint Venture, the lead bidder should meet minimum 75% of the net worth requirement.	Copy of the audited statement of accounts (PL Account & Balance Sheet) duly certified by the Chartered Accountant to be submitted as a proof of net worth.	

NOTE:-

1. In case of non-furnishing of requisite document along with the bid the bid will be considered as non-responsive and bid will be summarily rejected.
2. **Joint Venture / Consortium mean One Lead Partner and One other partner**

ANNEXURE – 4: PROPOSED SYSTEM (BILL OF MATERIAL)

Following details are to be furnished:

- (i) Details of cloud computing for hosting of application with Infrastructure details to be arranged.
- (ii) Detailed Data Sheet of Application Software indicating compliances of the Specification
- (iii) Details of tests of software / system with stage of testing
- (iv) Details of Mobile application
- (v) Details of system / Infrastructure to be deployed at Backup Center
- (vi) Details of Manpower, Office setup etc.
- (vii) Details of Training to be provided
- (viii) Details of connectivity (all Types)
- (ix) Details of Catalogue of services to be published.
- (x) Provide network schematic diagram showing all locations and components
- (xi) Details of DCU & modems

ANNEXURE – 5: DETAILS OF DASHBOARD AND QUERY BUILDER

The following details should be provided:

- (i) Details of Dash Board with availability of feature report available for Discom User.
- (ii) Details of Report / Information available on Public Portal
- (iii) Details of Information available on Mobile application.
- (iv) Details of Reports which can be available on query builder.

ANNEXURE – 6: APPROACH & METHODOLOGY FOR EXECUTING THIS PROJECT

Provide detailed approach and methodology for executing this project.

Kindly explain the approach in details

ANNEXURE 7: MANUFACTURE'S AUTHORIZATION FORM

No. _____

dated _____

To

**The Superintending Engineer (IT)
Jaipur Vidyut Vitran Nigam Limited
Old Power House Premises
Near Ram Mandir, Banipark
Jaipur-302 006**

Dear Sir:

We _____ who are established and reputable manufacturers of (name and descriptions of goods offered) having factories at _____ (address of factory) do hereby authorize M/s _____ (Name and address of Agent) to submit a bid, and sign the contract with you for the goods manufactured by us against the above Tender No 55

We hereby extend our full guarantee and warranty as per the conditions of the tender.

Yours faithfully,

(Name) (Name of manufacturers)

Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to legally bind the manufacturer. It should be included by the Bidder in its bid.

(The item or items for which this is required should be specified by Purchaser.)

ANNEXURE – 8: PROJECT IMPLEMENTATION PLAN

The total completion period shall be as under:

A. For Feeder Monitoring System

S.NO	PARTICULAR OF ACTIVITY	TIME SCHEDULE DESIRED	TIME SCHEDULE AS PER BIDDER
1	FURNISHING DETAILED ROAD MAP	WITH IN 15 DAYS FROM THE DATE OF AWARDING CONTRACT	
4	SUBMISSION OF DETAILED DATA SHEET OF SOFTWARE	WITHIN 45 DAYS FROM THE DATE OF WORK ORDER	
5	PROOF OF CONCEPT	WITHIN 75 DAYS FROM THE DATE OF WORK ORDER.	
6	COMMENCEMENT OF INSTALLATION OF SUBSTATION EQUIPMENT	WITHIN 90 DAYS FROM THE DATE OF WORK ORDER AND TO BE COMPLETED WITHIN 150 DAYS OF THE WORK ORDER	
7.	COMMENCEMENT OF SYSTEM IN ONE CIRCLE WITH HOSTING ON CLOUD COMPUTING	6 MONTHS FROM THE DATE OF WORK AWARD	
8.	COMMENCEMENT OF SYSTEM IN ENTIRE AREA	8 MONTHS FROM THE DATE OF WORK AWARD	

B. Additional Points for Automated Meter Reading (AMR) :

The Commencement of the AMR system shall be subsequent to Feeder Monitoring System for which JVVNL shall issue notification within two years of date of work order. After Notification from Discom, work shall be completed for the notified numbers within 30 days provided the notified quantity if more than 500 number of meters than additional time @ of 1000 number of meters shall be allowed.

Note : It is to be noted that the contract expiry date of both the above activities i.e. A & B shall be 10 years from the date of award of contract at first instance irrespective of the date of commencement of the work.

ANNEXURE – 9: SCHEDULE OF DEVIATIONS

Technical Deviations

S. No	JVVNL'S specification clause	Deviation sought by the bidder
1		
2		
3		
4		
5		

Commercial Deviations

S. No	JVVNL'S specification clause	Deviation sought by the bidder
1		
2		
3		
4		
5		
6		
7		

**ANNEXURE – 10: CONFIRMATION OF “NO DEVIATION” IN TECHNICAL /
COMMERCIAL TERMS AND CONDITIONS OF THIS TENDER**

Bidder's Name & Address:

To

The Superintending Engineer (IT)

Jaipur Vidyut Vitran Nigam Limited

Old Power House Premises

Near Ram Mandir, Banipark

Jaipur-302 006

Dear Sirs,

Sub: Confirmation for “No Deviation” in Technical / Commercial terms & conditions against TN 55

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

(Signature).....

Date :

Place :

(Name).....

(Designation).....

(Common Seal).....

Undertaking for various information furnished against TN-55

(To be furnished on Rs 100/- Stamp Paper)

Bidder's Name & Address:

To

The Superintending Engineer (IT)

Jaipur Vidyut Vitran Nigam Limited

Old Power House Premises

Near Ram Mandir, Banipark

Jaipur-302 006

Dear Sirs,

Sub: Undertaking for various information against TN 55

We hereby confirm that that all the information against all the schedules, Annexure (1-10) and all other Certificates etc. furnished are correct and if in future Discom discover that any information furnished is not true, same may lead to the rejection of bid or termination of contract.

(Signature).....

Date :

Place :

(Name).....

(Designation).....

(Common Seal).....

**Bid Bank Guarantee
(FOR EARNEST MONEY)**

(Bank Guarantee in lieu of 80% of earnest money on non-judicial stamp paper worth Rs.100/-)

Ref : Bank Guarantee No.

Dated:

Superintending Engineer (IT)

Jaipur Vidyut Vitran Nigam Limited,

Old Power House Near Ram Mandir,

Bani park, Jaipur – 302006

1. Whereas[*name of the Bidder*] (hereinafter called “the Bidder”) has submitted its bid dated[*date of submission of bid*] for the construction of.....[*name of contract*] (hereinafter called “the Bid”).

2. KNOW ALL PEOPLE by these presents that we..... [*name of bank*] of[*name of country*], having our registered office at..... [*address of bank*] (hereinafter called “the Bank”), are bound unto..... [*name of Purchaser*] (hereinafter called “the Purchaser”) in the sum of Rs.* _____ for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this ____ day of _____ 20_____.

3. THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder in the Bid Form; or

2. If the bidder refuses to accept the correction of error in his Bid ; or

3.. If the Bidder, having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity:

(a) fails or refuses to execute the Contract agreement, if required; or

(b) fails or refuses to furnish the performance security, in accordance with the General Conditions of Contract;

4. we undertake and authorize our branch situated at Jaipur (Rajasthan) address: _____ to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or all of the three conditions, specifying the occurred condition or conditions.

5. The decision of the SUPERINTENDING ENGINEER (IT), JAIPUR VIDYUT VITRAN NIGAM LIMITED, JAIPUR shall be final whether breach has been committed on the right to demand the amount of guarantee from us which has accrued to the purchaser.

6. This guarantee shall not cease or determine, if the purchaser grants time or indulgence or vary the terms of the contract with the contractor or without our consent or knowledge.
7. The guarantee herein contained shall not be affected by any change in the constitution of the contractor.
8. We, _____ further undertake not to evoke this guarantee during its currency except with the previous consent of the SUPERINTENDING ENGINEER(IT), JAIPUR VIDYUT VITRAN NIGAM LIMITED, JAIPUR.
9. All disputes arising under the said guarantee between the Bank and the Nigam or between the Contractor and the Nigam pertaining to the guarantee, shall be subject to the jurisdiction of Courts in Jaipur, Rajasthan alone.
10. This guarantee will remain in force up to and including one hundred Eighty (180) days after the date of the opening of bids, i.e. upto _____, with a further grace period of Ninty (90) days and any demand in respect thereof should reach the Bank not later than the above date.

Yours faithfully,

Bankers (EXECUTANT)

Witness :-

- 1.
- 2.

* The Bidder should insert the amount of the guarantee in words and figures denominated in the currency of bid. This figure should be same as shown in clause No. 5.0 of the "instructions to bidders".